

## **1. II Stakeholder meeting in the Zambezi Basin**

Since the first consultation in September 2017 the ISWEL team has participated in two basin meetings convened by the Zambezi Watercourse Commission and organized one Scenario Workshop. The two meetings where ISWEL team participated included:

1. Coordination meeting with partner organizations working on nexus initiatives in the Zambezi Basin. This meeting was convened by ZAMCOM with the intention to align current efforts and build on the work done across projects to support their activities, namely the Zambezi Strategic Development Plan (ZSDP) and the Zambezi Water Resources Information System (ZAMWIS). The meeting took place in Harare on 5 February 2018, and was attended by Piotr Magnuszewski (IIASA) and at least 4 other organizations, included, SADC, WWF, NEPAD/JRC, ETH-Zurich, WATER-NET. The outcomes of the meeting included a pre-agreement between IIASA and ZAMCOM to:
  - a. Designing and facilitating a participatory scenario development workshop using a policy exercise approach.
  - b. Providing feedback to the process of developing of Zambezi strategic plan through the outcomes of participatory scenario development.
  - c. Training (train-the-trainer) of the new group of facilitators to be able to run the scenario development process using a policy exercise approach.
  - d. Developing capacity building and training activities in the basin in coordination with other regional initiatives
2. Participation in the III Basin Stakeholder Forum “Water, Energy, Land Nexus for Socioeconomic development in the Zambezi Basin”. The ISWEL team was invited to provide a keynote presentation to share the developing work. The meeting was attended by Amanda Palazzo (IIASA), and took place in Lilongwe 8-9 October 2018. During the meeting, ZAMCOM officially invited IIASA to join the bi-annual ZAMCOM Technical Committee meeting on November 22<sup>nd</sup> in Harare to present the scenario approach and preliminary results of the exercise developed during the scenario workshop of July.

## **Developing water, energy, and land nexus scenarios for the Zambezi Basin**

This purpose of this workshop as with the one organized in the Indus was to build on the first meeting bringing together experts and stakeholders from the eight riparian countries, to jointly discuss desirable futures and pathways for the Zambezi basin and its riparian countries with regards to water, energy, and land. The specific goals were the same ones presented as for the Indus. The meeting co-organized with ZAMCOM and was attended by 6 IIASA staff, and the UNIDO project Manager

The 2-day workshop was attended by 24 stakeholders from seven riparian countries (Tanzania was not represented) and it was based on scientific approach but it also aimed to produce policy relevant results. The outcomes of the workshop translated into:

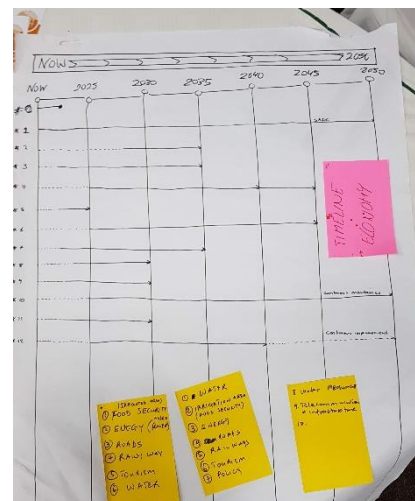
- ✓ Development of 3 visions and pathways to desirable futures for the Zambezi
- ✓ Enhanced and shared understanding across riparian countries participants and the ISWEL team national challenges and implications of different investments in the basin and their consequences cascading through the WEL sectors

Table provides a summary of the national and international organizations that attended the Harare meeting. The majority of stakeholders were federal government representatives and some international organizations (The World Bank, WWF).

Table 1 Organizations participating in the Zambezi Scenario Workshop, Harare 10-11 July

Country	Organization
Angola	Ministério da Energia e Águas
	Instituto Nacional de Recursos Hídricos (INRH)
	Governo provincial do Moxico
Botswana	Department of Water Affairs
	Department of Crop production
	Ngwato Land Board
Malawi	Energy Department
	Department of Water Resources
Mozambique	ARA Zambeze
Namibia	Zambezi Regional Council
	Namibia Water Corporation
	Ministry of Lands
Zambia	Ministry of Water Development, Sanitation and Environmental Protection
	Department of Energy
	Ministry of Agriculture
Zimbabwe	SARDC
	Department of Water Resources Planning and Management
	University of Zimbabwe
International	World Bank
	WWF
	Zambezi Watercourse Commission

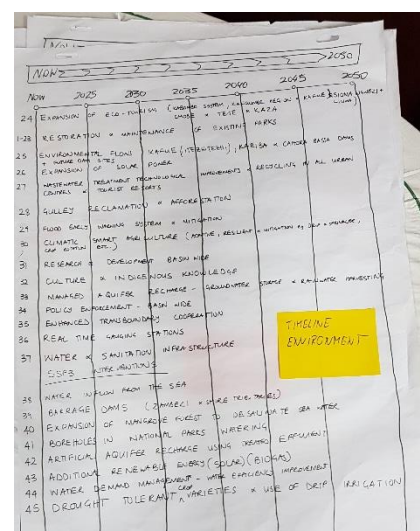
## Economy vision ZAMBEZI



## Society vision ZAMBEZI



## Environment Vision ZAMBEZI





The participants' evaluation questionnaire indicated that, similarly to the Indus workshop, almost all participants (with a few neutrals, no one disagreed) either strongly agreed or agreed that the workshop:

- met stated objective
- has stimulated learning and sharing of knowledge
- has been useful and relevant for their work



Among the multiple positive feedback messages from participants we present two of them below:

*"The workshop allowed the bringing in of all the problems and challenges being experienced in the basin on the table. The workshop hence gave the platform to view the different aspects of the basin as one whole picture. It also strengthened the aspect of cooperation between the riparian states i.e. they cannot operate in isolation."*

*"The workshop was well organized and very relevant to the current situation in the Basin. It provided room for more engagement and good platform to open to a wider audience."*

As a result of this positive collaboration, ZAMCOM agreed to integrate the outcomes of the scenario workshop into ZDP currently being drafted. Moreover, they indicated their interest in incorporating the IIASA scenario planning method into the process of iterative improvement of the strategic plan. Next consultation meeting will take place in April 2019 and will also provide the opportunity to IIASA team to present the quantitative outcomes of the scenarios co-developed with the stakeholders. The fruitful collaborations between the two organizations have strongly highlighted by ZAMCOM during the last Zambezi Basin Stakeholder Forum (Lilongwe 8-9 October 2018), whose theme was the Water-Food-Energy Nexus and where ISWEL team was given a prominent role (see video [here](#)).

### **Scenario Process: Development of desirable pathways and visions**

This section provides a short summary of the participatory scenario process developed using the Zambezi example to illustrate the dynamic.

#### **STEP 1: Reviewing current situation in the Basin and its major challenges**

The process started with characterizing the current situation of a basin, represented in a simplified visual format. To this end, a predefined set of materials such as maps and cards with descriptions of infrastructure, economic activities and resources uses were provided to facilitate discussions. These materials are carefully selected to provide sufficient information and knowledge without narrowing down participants' scope of exploration and breadth of choices – they could always add additional elements be it physical, social, economic or environmental. Such visual representation provided an opportunity for better understanding and a deeper discussion of key issues among stakeholders. Participants developed this representations of the current situation separately for different riparian countries (Angola, Botswana, Namibia, Malawi, Zambia, Mozambique, Zimbabwe).



### STEP 2: Developing future pathways: “business as usual”

Based on this joint assessment of the current situation (developed in the previous step), participants developed “business-as-usual” pathways – i.e. a series of changes of the existing situation that is likely to happen if current policies will continue. These changes were represented visually by adding or changing existing elements on the map. Additionally, the changes (new investments or initiatives) were represented separately with the timeline depicting the pathway from “now” to the future.



### STEP 3: Developing Zambezi visions (desired futures) and pathways leading to them

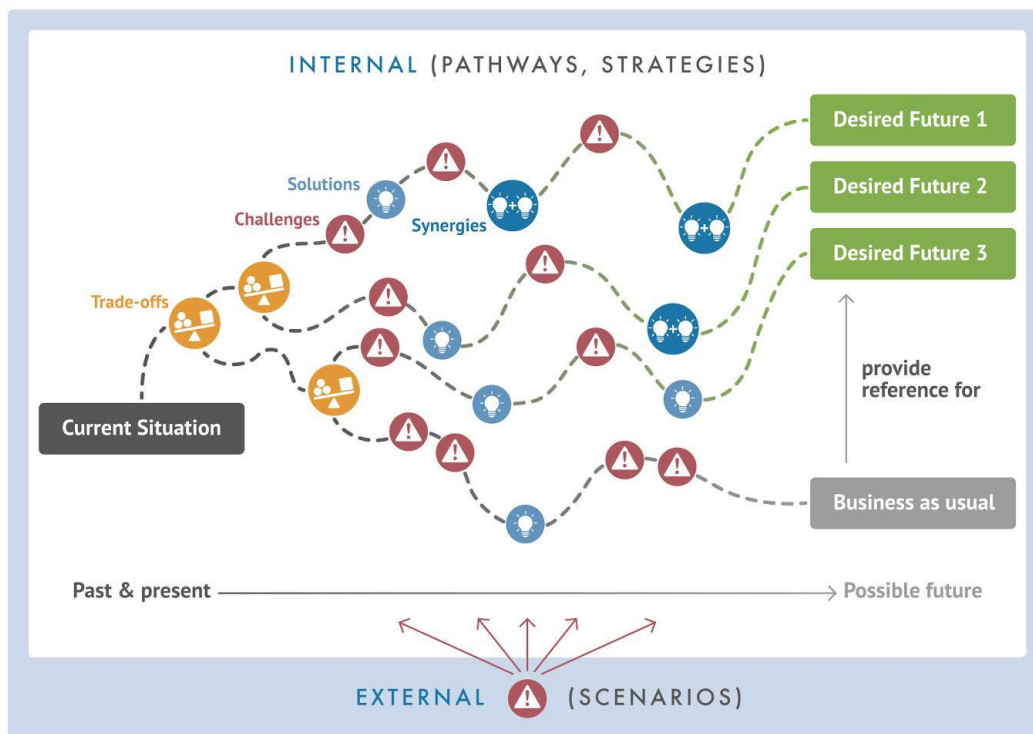
Three visions of “desired futures” were developed together with their corresponding pathways. Unlike the business-as-usual that continues existing policies and directions, the desired futures started from clear, ambitious but realistic visions of what can be achieved. Three different groups worked assuming 3 different priorities: economy, society, and environment respectively. The focus on priorities were not supposed to eliminate other important concerns - all the visions were aimed to be desired and holistic. They included both hard (e.g. infrastructure) and soft (e.g. behavioral change) elements. The pathways leading to the crafted visions were represented on the timeline including specific initiatives and investments.

## Desired Future Pathway



### STEP 4: Improving the robustness of pathways – addressing challenges from global scenarios

In order to test robustness of the chosen solutions under unfavorable external circumstances (scenarios) it is also beneficial to consider some undesired global scenarios. The differences between alternative global scenarios are represented with a set of externally imposed challenges along the analyzed regional pathways. Although a sustainability scenario (consistent with SSP1) is often attractive, strategies designed by stakeholders should also be robust to unfavorable external conditions. Implications of other global scenarios (based on SSP2-5) on regional pathways will be considered and pathways will be revised to improve their feasibility.





## **Training on “Approaches to Scenario Planning”**

Preceding the Scenario Workshop the ISWEL team led a training on “Approaches to Scenario Processes” on July 9<sup>th</sup> 2018. The course was attended by 11 International students pursuing the Integrated Water Resources Management Master Program at the University of Zimbabwe. The goal of this activity was to introduce them on the different methodologies available for scenario planning, and specifically provide them with some skills to support the ISWEL team during the Zambezi Stakeholder Scenario Workshop that took place on 10-11 July.



*Participants of the Training, Harare, 9 July 2018*

As part of the training, ISWEL team also run the Water-Energy-Land Nexus simulation game. This exercise was mostly intended as an ice-breaker for students into what means dealing with the nexus in a transboundary setting.

Participants went very positive about the training and some indicated that simulation games like the IIASA Nexus are a very good tool to enhance participatory contributions in basin wide-planning. A snapshot of the exercise can be found [here](#).



*Participants during the Nexus game simulation*