# Co-elaborative scenario building The futures of livelihoods in the Sengwe area

Workshop Report Malipati village, October 22-24, 2018

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# Background

This workshop is part of a project supporting the long-term sustainable management of, and promoting sustainable livelihoods in TransFrontier Conservation Areas ("ProSuLi in TFCAs") in southern Africa (Botswana, Mozambique, Zimbabwe) through a multi-stakeholder participatory process<sup>1</sup>. This project spans over three countries and four sites, one of them being the "Sengwe" site located in the South East Lowveld of Zimbabwe, which includes Malipati, Pahlela and Pesvi villages. The main activity is livestock production and small-scale agriculture, as well as migration to South Africa by male youths, and now increasingly young women too. Households struggle with issues such as access to energy and communication, transport, and coexistence with wildlife.

# **Objectives, outcome and activities**

## Specific objectives

This co-elaborative scenario-building workshop is an activity developed within the framework of the first output of ProSuLi in TFCAs project, namely participatory approaches that catalyse a process of collective action. The immediate objective of the workshop was to support a group of local stakeholders/actors in producing plausible contrasted scenarios about the futures of livelihoods in the Sengwe site by 2038.

## Desired outcome

The desired outcome is that the participants and the wider community of local stakeholders and actors become pro-active in the co-design of TFCA management options both locally and interactively at larger scales.

For this to happen, the workshop was organized in order to implement a co-elaborative scenario building approach (Bourgeois et al. 2017) that enables local stakeholders/actors to explore and use alternative plausible futures for future-oriented decisions and actions, taking into considerations longer term implications of immediate decisions.

### Activities

The workshop took place over three days as indicated in the attached programme (Annex 1). Crucial preparatory work had been done by the projects coordinators in the Sengwe district to ensure adequate information, presence and participations of relevant local actors and stakeholders, as per the discussions that took place in a preparatory meeting earlier in Montpellier and extensive mail exchange.

The workshop alternated plenary and group sessions taking the participants step-by-step all the way from their perception of the future to the strategic tipping points connecting the future with the present. The steps included: reflection on the likely future of livelihoods according to participants' perception; identification of the factors of change; selection of five driving forces; identification of plausible futures states of the driving forces; creation of scenario frames and synopsises, and identification of tipping points. A final activity revolved around the expectations of the participants after the workshop regarding what they learned and how the results can be used by them and by others. All activities took place in English, Shangaani and Shona.

<sup>&</sup>lt;sup>1</sup> https://www.rp-pcp.org/projects/on-going/eu-prosuli

# Results

# Likely future of livelihoods

The result of the first activity was the identification of what participants thought would happen to their livelihoods by 2038 and how this can be used to identify factors of change.



These results were then discussed with a focus on the "issue" at stake behind the description of the likely future of the livelihoods. This took place in small groups and then results were clustered, further discussed and finalized into a list of factors of change as per table 1 below. A total of 36 factors of change were identified. They were distributed into five broad dimensions: social, technical, economic, environemental and policy. The table indicates also their definition as these appeared during the discussion. However not all definitions are validated

Figure 1: Identified issues at stake in future scenarios

and this should be one step that needs to be finalized during the next meeting with the participants (see Follow up section).

Name	Definition	Dim.
Canacity to adapt to dimate change	The capacity of local people to adapt to climate change	
Capacity to daapt to climate change	through actions	EU
Quality of air	The quality of air in the area	En
State of natural resources (vegetation cover)	Excluding water and water bodies	En
State of water and water bodies	The quality and availability of water	En
State of animal health	Including domestic and wildlife	En
Human wildlife interactions	The nature of interactions between local people and wildlife	En
Governance capacity of the local	The capacity of the local community to organize and	D
community	influence decisions	Р
Natural resources management	By whom and how are natural resources (excluding	D
Natural resources management	wildlife) managed	Г
Wildlife management	By whom and how is wildlife managed	Р
Land use policy	Who decides and how about land use at the local level	Р
Land use allocation	By whom and what for is land use allocated	Р
State of health infrastructure	Quality and distribution of hospitals, clinics	Р
Access to health services	Who has access to health services quality of the services	Р
Distribution of wealth	Who is wealthy and where are they located	Ec
Nature and type of investment locally	Nature and type of investment locally	Ec
Nature and type of development	Which economic sector is developed how, by whom	Ec
State of poverty	Who is poor and how is poverty distributed	Ec

 Table 1. Factors of change related to the futures of the livelihoods in the Nelukoba site

Name	Definition	Dim.
Movement of people	Migration flows out and into the area (number of people, who)	Ec
State of transport infrastructure	Quality and distribution of transportation networks	Ec
Accessibility to and from the area	How easy it is to reach and leave which parts of the area	Ec
Access and type and quality of education	Who has access to what type of education including the quality of it	Т
State of ICT	Level of development and accessibility to information and communication technologies	Т
State of farming knowledge and skills	Include crops and livestock	Т
Type of livestock farming system	How livestock is managed and by whom	Т
Livestock density	Number and distribution of cattle in the area	Т
Type of farming system	Who is farming and how (crops)	Т
Type of energy and access	Who has access to energy and what type of energy	Т
Attitude/behaviour of people	Individual attitude and behaviour of people locally	S
State of local culture and traditions	The place of the local culture and traditions in the local society	S
Place of men and women in the society	Place of men and women in the society	S
General level of education	The level of literacy of the people I n the area (including who and also distribution)	S
Nature of people relationship	The nature of the local social links between people	S
Density and distribution of the population	Who and how many live where	S
State of health of people	Who is healthy, where, who is not healthy, why	S
Sate of food security	Who is food insecure, how many and where	S
Demographic policy	The public means used to regulate the number of people living in the area	S

Source: Participants and facilitators

Note: S: social; T: Technical; En: Environmental; Ec: Economic, P: Policy.

#### Driving forces

In order to identify the five driving forces to be used to build the frame of the scenarios, participants engaged in a reflection on the interconnections between the different factors. They worked first in five groups (one per dimension) and then reconnected all factors in a plenary session. The result is displayed in the figure below. The intention was not to explore all and every connections but to give the participants a taste of the "system" as a whole where connections matter as much as the factors.



Figure 2: Factors of change organised as most influenced by others (red) and as most influential on others (green)

A voting process took place where each participant was allocated eight red dots and then eight green dots to the factors in order to identify, respectively, the factors that were the most influenced by the others (red) and the factors that were the most influential on the others (green). Figure 2 also displays the results. Finally participants were asked to select one factor per dimension that they would consider

as the entry point in that dimension for building the frames of the scenarios. As a results the participants selected one driving force per dimension as follows:

- Local culture and traditions (social)
- State of poverty (economic)
- Governance capacity of the local community (policy/governance)
- Capacity to adapt to climate change (environmental)
- Type of farming systems, including cropping and animal husbandry (technical)

Graph 1 below reflects on the distribution of the green and red dots by the participants (green dots corresponding to influence and red dots to dependence). This graph was not developed during the workshop due to lack of electricity for using electronic support. Factors of change are displayed with a shorter acronym so as to make them visible on the graph<sup>2</sup>. The yellow ones correspond to the five driving forces selected by the participants, one per dimension. The red ones are the factors the participants deemed the most dependant in the system. The three blue ones are factors which play an important role in the future but were not considered after reflection due to the limit of using five driving forces and one per dimension. Local culture and traditions (Loc Cult) was preferred to general level of education (Educ\_Lev) because the latter is also very much influenced while the former is less influenced. State of poverty (Poverty) was preferred to movement of people (MoP) as the former was considered as strongly influential on the second. The governance capacity of the local community was preferred to land use allocation for the same reason, but participants agreed to include a specific land use allocation dimension in the description of the future states of this driving forces. For the technical dimension, types of farming and livestock systems were merged as one driving force (yellow arrow). All other factors are displayed in white. Most of them are located in the lower left part of the graph as they received less voting. This does not mean that they are less important in the system, but that their influence was not considered strong enough to become the entry point for crafting the frames of the scenarios.



Graph 1. Distribution of factors of change according to the results of the voting process

Source: Authors

 $<sup>^{2}</sup>$  See Annex 2 for the correspondence between the factors of change and the acronyms, as well as the rating of the factors by the participants.

#### Future states of the driving forces

In a plenary session two rounds (one for positive states, one for negative states) were used for identifying future states of "Capacity to adapt to climate change". The participants were split into four groups, each one developing future states of the other four forces, using also an additional round for alternative states<sup>3</sup>. The results, as displayed in table 2 below, where then shared among all participants, discussed and validated. The facilitating team prepared then a list of incompatibilities (future states that cannot be combined in framing scenarios because they represent future situations that are mutually incompatible and would therefore lead to non-plausible futures if they were combined).



<sup>&</sup>lt;sup>3</sup> Note that the use of positive, negative and alternative as categories is not intended to be of a normative nature. It is a "trick" used to facilitate the engagement of the participants in the process of "futurizing".

# Table 2. Future states of the five driving forces

Driving forces	State 1	State 2	State 3	State 4
A. Capacity to adapt to climate change	A1. Capacity to adapt to climate change through use of irrigation, diversified sources of energy, reforestation, adapted cropping and livestock systems, building of water control infrastructures (dams). Large	A2. Resistance to adapt as climate change is not affecting lifestyles anymore	A3. Failure to adapt to climate change related events	A4.No capacity because of no people
B. State of local culture and tradition	B1. Local culture and traditions are central in the society, being taught at school and practiced by everyone	B2. Local culture and tradition have been erased and substituted by a foreign culture	B3. Local culture and tradition are mixed with other cultures	B4. An "individual" culture prevail
C. Capacity of governance of community	C1. Ability to good governance Local leaders empowered with authority and power to land use and gender inclusiveness	C2. Power abuse by leaders, no decisions taken, male dominated governance and corruption about land allocation	C3. Top down external governance	C4. Chaotic fight for power
D. Farming and livestock system	D1. Local farmers practising use of adapted breeds and varieties with irrigation	D2. no farming/livestock	D3. Local farmers use zero grazing at small scale with small livestock (rabbits, chicken) and greenhouse/rooftop farming	
E. Sate of poverty	21. 30% poor, vulnerable groups such as women, orphans, elders), mainly near the park otherwise randomly distributed	E2. 90% of the population, 10% not poor: employed, business owners, poverty randomly distributed	E3. 60% of people, mostly women and children, unemployed and elder men, randomly distributes among villages	

Source: Participants and facilitators

## Framing the scenarios

Scenarios were created using the above table of future states by combining vertically a selected state of each variable in a compatible way. In three rounds of interactions participants were asked to produce different scenarios (negative, then positive and then alternative scenarios), working in groups. Results were then discussed so as to select the scenarios which produced the most contrasted future situations. Five contrasted frames of scenarios were identified as follows: .

#### A4-B2-C4-D2-E2; A3-B4-C4-D2-E2; A3-B3-C4-D3-E2; A2-B1-C3-D3-E3; A1-B3-C1-D1-E1



For each scenario a synopsis was developed, first in a plenary session and then in groups supported by the facilitating team. The rule for creating a synopsis is that only the information entailed in the future states that are combined must be used, with some connecting words so as to make the reading attractive. In addition, a tentative title was given to each synopsis except the first one. A synopsis consists in a paragraph that provides a short story which is easy to understand for an external reader. The five synopses are displayed in table 3 below

#### Table 3. The synopses of the five scenarios

#### A4 B2 C4 D2 E2 Selfish pain

In 2038, the local culture and traditions have been erased, leading to chaotic fight for power and unclear land use allocation. Ninety percent of the population has first become poor due to no more farming and livestock products. This resulted in everyone abandoning the area, leaving it with no capacity to adapt to climate change.

#### A3 B4 C4 D2 E2 L Mazvakemazvake - Laissez-faire kills

In 2038, an individual culture prevails and people do whatever they want, affecting the governance capacity of the local community and leading to infighting for leadership. The power struggle deviates people from adapting to climate change. As a consequence farming has collapsed. A very disturbing situation exists whereby ninety percent of the people are poor except for only 10% which is employed or owning business.

#### A3 B3 C4 D3 E2 Matlimba Avanuna - The male power

In 2038, local culture and traditions are central to the society, taught at school. The governance capacity of the local community is characterised by abuse of power by male-dominated leaders and corruption in land allocation. People are resisting to adapt to climate change. As a result there is no more farming activities and livestock! Therefore 90% of the population is living in poverty throughout the whole area, except for the 10% who are either employed or have their own business.

#### A2 B1 C3 D3 E3 A big one for a few ones

In 2038, the local culture and traditions are central in the local society and people's lifestyles entice them to resist to adapt to climate change. A top down governance system has taken over the capacity of governance of the local community and land use allocation. It is supporting agricultural activities based on zero grazing at small scale with small livestock (rabbits, chicken...) and greenhouse/rooftop farming. 60 % of the population remain poor, particularly women, children, elder men and the unemployed. Poverty is spread across the villages.

#### A1 B3 C1 D1 E1 Chaitemura Chavakuseva – Bye poverty!

In 2038, there is a mix of local and foreign culture with good governance, empowered local leaders and cross-cutting inclusiveness in land use allocation. Due to the adoption of solar energy, there is well adapted irrigation which promotes mixed farming using adapted livestock breeds and crop varieties with high value markets. As a result the level of poverty has been reduced to 30%. The poor are vulnerable groups (women, orphans and elders) scattered around the park.

# Discussion of the driving forces, their future states and the synopses

The selection of the driving forces through the reflection on their interactions and voting process yielded results which altogether make sense given the conditions of the area. Three of the forces identified (state of local culture and traditions, capacity to adapt to climate change and local governance capacity) are "deep" drivers in the sense that while they are not prone to easy change, if changes occur then implications would be very strong and lasting. The two others (type of farming system and state of poverty are forces which are strong in their dimension and connecting with other dimensions. Similarly most of the factors highlighted in red in the graph (state of natural resources, livestock density, quality of air, financial investment correspond indeed to "outputs" in the sense that their future state is very much dependent on the future configuration of the scenario.

The five scenarios developed from the combination of the future states are not excessively creative with regards to what is currently considered as the main challenges for the future of the Sengwe site. In the first session of the workshop participants mostly identified likely futures which were globally undesirable, and all but one scenario correspond to such a pessimistic vision.

The futures described in all synopses are not predictions and are not intended to serve as blueprints for action. Their role is to widen the perception the participants have of the present by engaging in a stimulating reflection about the evolution of their environment and what could happen to their livelihoods, beyond usual basic trend analysis. As such they serve to "benchmark" the future, opening horizons and enabling people to think differently.

## Going back to the present

During the last session of the anticipatory process the participants engaged in connecting the five futures with the present<sup>4</sup>. A first plenary session was conducted using the same scenario that was developed in plenary with the objectives of identifying "tipping points" or "critical junctures", understood as particular actions or events which had to happen between 2038 and 2018 to explain how the past (2018) evolved into that present (2038). Four groups were then organized, each one working on the scenario synopsis they had developed. The results of this process (see annex 3) yielded between 2 and 4 tipping points per scenario. Each one complements the synopsis in the sense that each synopsis is no longer just an image of the future but also a path of tipping points connecting it to the present.

In the last plenary session, these paths were discussed and shared among all participants and a final discussion took place regarding how the participants saw the overall activity, how they could use the scenarios and what for. It was also a time where the TFCA ProSuLi project was brought back in the picture and connections were made with the activity.

# Feedback and follow-up

A feedback session was organised around the following questions:

What can we do with scenarios that have been identified?

<sup>&</sup>lt;sup>4</sup> Also called « backcasting » though here the method used was a lighter version of the approach used in (Bourgeois et al, 2017), adapted to fit the specific conditions of this activity.

- How best can we use these ideas to connect to the future and identify important mitigation actions that can connect to the sustainable future?
- How ProSuli project can help and in furthering this work in building livelihood actions to move the society forward?
- How to use the results from the ProSuli project in building sustainable livelihoods actions.
- How you think the project can be scaled up to others who are not here?

# Feedback from participants

### **Lessons from Scenario Planning**

- We have to adapt to Climate Change
- Crop and livestock integration
- Need to modernise our farming techniques and be leaders in this drive
- We also learnt that development planning involves perseverance
- Competition among farmers (ourselves) breeds conflicts and undesirable scenarios
- Use of solidarity instead competition
- •
- Choose our daily activities carefully because anything can happen due to the external forces
- Do not be rigid, but rather adapt to the prevailing conditions
- If concepts are too much complex we tend to fail to understand and fail to communicate to others
- Culture is critical for adoption and acceptance
- Need support from literature and handouts
- School teachers to form awareness campaigns e.g. teach about climate change
- Capacity to adapt because we cannot rely on one type of farming system due to climate change
- Will tell others at Manjinji to accept the reality and the education that comes e.g., initial resistance to climate change
- People need strong leadership for them to respond positively

## Support Needed from ProSuli

- ProSuli needs to work with local with local organizations e.g., Malipati Development Organization
- ProSuli to assign people to hold local meetings
- Support sports activities in dissemination forums
- Support farmer field extension or schools
- Disseminate field manuals and promotion materials
- Promote sustainable livelihoods
- Feedback to the village head levels
- Assistance with resources to support activities
- Support pilot projects for demonstrating sustainable farming techniques
- Dissemination of information through innovations and competition

### Conclusion

Work together and advice other on planning about tomorrow

## Next steps and follow-up

The immediate or quasi-immediate actions include:

- Sharing the list of factors of change and the report among the team of facilitators (Robin to start producing the report, report ready by mid-November with inputs from all team members)
- Developing the narratives of the scenario (Robin to give an example and provide short guidelines by November 4<sup>th</sup>, facilitation team working in pairs on the four other narratives).
- Producing accessible written material that can be understood by the wider community (at least in English and Shangaani)
- Producing visual supports such as attractive drawings, pictures, cartoons again in all languages needed)
- Using the results as a reference for the different working packages of the project (which may include further work to turn the synopses into narratives as the other factors of change where not used to complement them yet).
- Organising a meeting in December (Prisca and Billy with support of Pastor) to share results, get feedback and keep momentum. Also preparing for the next steps next year when a workshop will be held to identify areas of work that ProSuLi could support/facilitate.

## *Lessons learned for futures workshops in other sites*

- 1. The number of participants around 25 people is really the ideal manageable size.
- 2. The presence of numerous "observers" who became indeed facilitators was a key element for the proper implementation of the workshop and reaching the expected results. This is particularly true given the conditions of total blackout of power which forbade using electronic support for recording intermediary results, not speaking about printing them and sharing them with participants. For the next events, (Hwange and Mangalane) this has to be properly addressed before their implementation to avoid cancellation.
- 3. As per the case in Botswana simultaneous translation was needed (in three languages) and this significantly expanded the duration of the work. A support team of two people was needed and we were lucky to have a volunteer from the group of participants beside Pastor Chauke. A three-day workshop is really very short and did not allow to reflect more on implication and better developed the synopses and turn them into full narratives.

# Annex 1. Workshop Programme

TFCA ProSuli Sengwe – October 22-24, 2018

# Day 1 – Monday October 22

	-
9h00-9h30	Introduction
9h30-10h30	Main factors influencing livelihoods
10h30-12h00	What could happen to livelihoods in the future
12h00-13h00	Selection and definition of the driving forces
13h00-14h00	Lunch
14h00-15h30	Future states of the driving forces
15h30 -17h00	Future states of the driving forces

### Day 2 – October 23, 2018 15

9h00-12h30	Future states of the driving forces
12h30-13h30	Lunch
13h30-17h00	Creating scenarios and developing a synopsis

### Day 3 – October 24, 2018

9h00-10h30	Developing the synopses of the scenarios
10h30-12h30	Back to present
12h30-13h30	Lunch
13h30-15h30	Back to present
15h30-16h30	Linking the present and the future
16h30-17h00	Wrap-up and closure

# Annex 2. Voting results for the selection of the driving forces

		Voting	
Name of the factor	Acronym	Red	Green
State of local culture and traditions	Loc_Cult	3	16
General level of education	Educ_Lev	12	13
Land use allocation	LU_Alloc	1	12
State of poverty	Poverty	6	10
Movement of people	MoP	4	9
Governance capacity of the local community	Gov_Cap	5	9
Capacity to adapt to climate change	CC_Adapt	3	7
Place of men and women in the society	Men_Women	0	6
Type of farming system	Farm_Syst	14	5
Nature and type of development	Dev_Typ	1	4
Distribution of wealth	Wealth	4	4
Type of energy and access	Energy	0	3
State of water and water bodies	Water	2	3
Natural resources management	NRM	2	3
Access and type and quality of education	Educ_Qual	2	3
Attitude/behaviour of people	Behav	2	3
State of farming knowledge and skills	Farm_Skill	3	3
State of natural resources (vegetation cover)	State_NR	13	3
Sate of food security	State_FS	0	2
State of health infrastructure	Health_Infr	1	2
Land use policy	LU_Pol	2	2
Nature and type of investment locally	Loc_Invest	13	2
Access to health services	Health_Serv	0	1
State of transport infrastructure	Inf_Transp	0	1
State of ICT	ICT	0	1
State of health of people	Health	0	1
Density and distribution of the population	Pop_Dens	1	1
Type of livestock farming system	LF_System	7	1
Quality of air	Air_Qual	10	1
Livestock density	Liv_Dens	15	1
State of animal health	Anim_H	0	0
Wildlife management	WL_Manag	0	0
Accessibility to and from the area	Area_Acc	0	0
Nature of people relationship	People_Link	0	0
Demographic policy	Dem_Pol	0	0
Human wildlife interactions	HW_Inter	1	0

# Annex 3: List of participants

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ATTENDANCE REGISTER PROSULT WORSHOP DAS 3 24/10/18

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PROSULI MORKSHOP: "P	ARTICIPANTS CONTACTS
VENUE: MALIPATION DAS	728 22-24/10 ale No. 2000/
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7. BHATELA ROBGERS	0771555013
8. MOTO LAWRENCE MDT	0773952929
9. PA AMERI DUBE	0777175873
10- MUZANJWA	0776500970
Tr. Ellen Madunuse	0778286391
12- WACHT SILBAZISO	0778901743
13. CHIROUE JOSEPH	0773490067 joseph Chihrelbagmia
RF- FANA HICKLER	0778135748
15 MHERE	0778061400 N/A
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ar. JAJA VINCENT	0774996154
2- KHUMALO PHILLIMON	0783073897
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28. Micla GIUR	00258824885230 - Conator.
29. Josephing Burne	80258849478528 Journa Jahoo.ca.
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32. Mature Lanmore	0779692659 danmore 16@gmader

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