



Questionnaire Documenting Unplanned Human Responses to Changes in Weather and Climate, and Subsequent Impacts on Biodiversity



AFRICA BIODIVERSITY COLLABORATIVE GROUP

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Background information

Far removed from decision-making bodies and financial resources, rural communities in Africa are often left to their own devices to cope and adapt to changes in weather and climate. Because coping strategies and autonomous adaptation responses go largely undocumented, we miss important opportunities to learn from the experiences of these communities and integrate learning into conservation planning efforts. This questionnaire is designed to help us understand how people are really responding to the changes around them, by gathering information to answer the following questions:

What can we learn from these communities?

Can successful responses serve as models for others?

Are unplanned responses leading to maladaptation?

How are responses, successful or otherwise, affecting wildlife and ecosystems?

The questionnaire is primarily targeted towards key informant interviews. These are used to explore a particular set of topics in detail, with someone who has extensive knowledge about those topics. It is designed to be exploratory and free-flowing in nature, providing the interviewer with broad leeway to allow the responses of the interviewee to shape the interview. Key informant interviews enable us to gather information which the wider community might not have, or might not want to share. This means that key informant interviews can provide information we did not expect, and provide insights which are not generated by other methods.

Instructions

The questionnaire is divided into seven sections. The first section is a set of background information to be gathered about the respondent; please make sure they answer all of these questions. In subsequent sections a header describes the information to be collected in that section, but we do not expect that respondents will answer or provide information corresponding to every bullet point listed below the subject header. The bullet points are there to serve as a guide to interviewer about the types of responses we expect. For example, section two is focused on documenting changes the respondent may have experienced. The section should begin with a question like: "Have you noticed any changes in the environment?" First give the respondent a chance to answer this general question, Then, if the respondent says they have not noticed any changes, the interviewer may want to ask questions based on the bullet points below, such as "Have you noticed any change in the length or timing of the dry season?" or "Have floods or droughts become more frequent or severe?"

1) Background information to collect on each respondent:

- Name
- Contact information
- Size of household
- Gender of the head of household
- Age of the head of household
- Years of education
- Primary source of income

- Livestock ownership (if any)
- Farm size (for farmers)
- Daily catch (for fishing communities)
- Number of years lived in the area
- Other

2) Have you noticed any changes in the environment? Over what time period?

Weather/Climate:

- Temperature (dry season temperature, rainy season temperature, length of cold periods, length of hot periods)
- Rainfall (more/less overall, longer rainy season, longer dry season, length of dry spells during rainy season, intensity of rainfall events)
- Wind (intensity during dry season, intensity during wet season)
- Timing of seasons
- Extreme events (floods, droughts, heatwaves, inundation of fields and villages)

Ecosystem:

- Vegetation cover
- Wildlife
- Pests/disease

3) To what do you attribute these changes (be specific for each change you suggested)?

Weather/climatic change:

- GHG emissions
- Deforestation
- Depletion of other forest resources
- Bush burning
- Increased population
- Other factors

Ecosystem change:

- Climate
- Human activities
- Other factors

4) What are the effects of these changes, and when are you most affected?

What?

- Decreased crop yield
- Damage to crops
- Increased weed infestation
- Increased pest/disease outbreak
- Poor livestock health
- Livestock theft
- Fodder shortage and costs
- Changes in soil fertility
- Human health
- Effects on wildlife and the ecosystem in general

When?

- During the growing season
- During the reproductive stage of crops affecting grain size, weight and yield

5) How have you coped with extreme events or other sudden and unexpected change and what has been the effectiveness and consequences of your responses?

- Use of new crop varieties (e.g. different species, short/long cycle, drought resistant, etc...)
- Use of new livestock species
- Irrigation
- Fertiliser
- Crop diversification
- Adoption of mixed crop and livestock farming systems
- Changing planting dates
- Planting trees
- Soil conservation
- Shift/increase in farming/grazing location
- Encroachment into protected areas
- Migration (young people leaving, less labour, but may then provide another income source)
- Sell livestock
- Borrowing/mortgaging
- Subsidies
- Use of forest/wild plants (wood, fruits, roots)
- Hunting animals

Have any of these technologies helped?

- Weather forecasts
- Early warning systems
- Communications systems

6) Are there any barriers to adaptation? What might you have done differently with external assistance and resources?

- Lack of funding and access to credit/loan facilities
- Land tenure (Landowners tend to adopt new technologies more quickly than tenants)
- Soil fertility (The lower the fertility, the less likely they are to adopt cc adaptation measures)
- Access to information/advising services
- Social capital (the expected collective or economic benefits derived from the preferential treatment and cooperation between individuals and groups)
- Shortage of labour
- Shortage of land
- Poor potential for irrigation
- Distance to output/input markets (markets serve as a means of exchanging information with other farmers, as well as products)
- Lack of fertilizer
- Lack of seed
- Lack of Farm equipment
- Limited market for the produce
- Energy supply

7) Is there any evidence of impacts (from communities or otherwise) on local wildlife and ecosystems in general, particularly as a result of your response to the changes in the environment?

- Increased human-wildlife conflict
- Increased competition for resources (water, food, land)
- Increased wildlife mortality
- Wildlife moving to/away from communities
- Increased land degradation
- Changes in water supply

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