A GUIDE TO THE MODIFIED BASIC NECESSITIES SURVEY

WHY AND HOW TO CONDUCT BNS IN CONSERVATION LANDSCAPES

Preamble

During the last decade, the conservation community has made significant progress developing robust methods for monitoring the status of conservation species, habitat targets and threats (these include: camera trapping, line transects, remote sensing image analysis, ranger patrol/law enforcement monitoring, and community monitors). However, we have not made similar progress in developing tools for regularly and credibly monitoring and reporting progress on governance systems that ensure sustainable resource use, nor on how to best assess the impacts (positive and negative) of conservation investments on the livelihoods and well-being of people whose lives are influenced by conservation actions.

After 2 years of investment and field testing, USAID and its conservation partners launched, at the 2014 World Parks Congress in Sydney Australia, a new, credible, low-cost, expert-opinion based, quantitative tool for assessing the strengths and weaknesses of all governance bodies with jurisdiction over natural resource management within a given landscape or seascape.

This BNS technical manual is the result of comparable effort led by the Wildlife Conservation Society with support from USAID, to bring to conservation practitioners a low-cost tool for credibly assessing how conservation actions affect families' livelihoods and sense of well-being, and tracking changes within and across villages over time :
http://globalinitiatives.wcs.org/PeopleandConservation/WCSResources/Publications.aspx

Families who live with wildlife, forests and aquatic systems who depend directly on nature's goods and services for food, fuel, income and shelter are the community's greatest advocates for conservation and are the most motivated stewards for protecting wildlife and conserving natural resources. As we say at WCS, we want to save the best wild places on earth, and so do the people who live there.

Caring about peoples' well-being matters to conservationists for three primary reasons. First, providing appropriate market and non-market based incentives for families to engage in conservation practices and to steward the wildlife they live with and the natural resources they depend upon, is a purposeful strategy. In other words, we see securing livelihoods as a means to a conservation end. Second, more secure livelihoods is a desired outcome of the conservation of natural resources that are the foundation of the economies and cultural identities of families and communities. Greater livelihood security allows families to take a long view on the environment, where the future is no longer discounted and resources no longer mined unsustainably. Lastly, conservationists share with doctors an obligation to "first, do no harm" and ensure that local people do not unjustly shoulder the costs of conservation of global public goods.

Given that secure livelihoods and conservation stewardship are deeply connected and that conservation should, at worst, do no harm to people's livelihoods, the conservation community needs a way to track and assess the effect of conservation actions on the well-being of people who live within the landscapes and seascapes where conservationists work.

This technical manual was developed to offer conservation practitioners with limited budgets and staff a simple, practical, low-cost, quantitative approach to measuring and tracking trends in people's well-being, and to link these measures where possible to the use and conservation of natural resources.

This approach is not based on the assumption that people are doing well if they make more than 1-2 dollars per day, or are in poverty if they make less. Rather, it is based on the understanding that people themselves are best able to decide what constitutes well-being. The approach is based on a United Nations definition of poverty as a lack of basic necessities. More specifically the approach asks communities to

define what goods and services are necessary for a family to meet their basic needs. Examples of goods include material items such as: an axe, mobile phone, bed, or cook-stove. Services can include: access to clean drinking within 15 minutes' walk, reasonable walking distance to health care, children attending school, women participating in community decision making, or absence of domestic violence, etc. Families who do not own or have access to this basket of goods and services are, by community definition, not meeting a basic, minimum standard of well-being and thus according to the community-defined are poor (i.e., living below the community defined poverty line).

This manual is offered as a practical guide to implementing the Basic Necessities Survey (BNS) that was originally developed by Rick Davies (http://mande.co.uk/special-issues/the-basic-necessities-survey/), and was recently modified and then field tested by WCS. The modified Basic Necessities Survey is imperfect, in that it does not attempt to answer all questions that could be asked about the impact of conservation (or development) actions on people's well-being. But it is the perfect core to a livelihoods monitoring program, because it provides essential information about people's well-being from their perspective over time, and implementing a modified BNS is easy enough that it does not preclude gathering additional household information that a conservation project feels they need to adaptively manage their activities.

Acknowledgements

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For access to other WCS publications about BNS :
http://globalinitiatives.wcs.org/PeopleandConservation/WCSResources/Publications.aspx

Contents

CHAPTER 1: WHY WE CARE ABOUT LIVELIHOODS

Figure 1: Conservation should support local livelihoods, such as training these fishermen in sustainable methods, and at the very least not increase poverty. Credit : Andrew Kirkby, WCS

Why should a conservation organization care about the livelihoods or well-being of local people who live in the landscapes and seascapes where you work? Drawing on decades of work with local and indigenous peoples around the world we believe that being concerned about local people's well-being is important for the following three reasons.

First, well-being is a means to a conservation end. Providing economic incentives for poor families to engage in conservation practices is a purposeful strategy. When such practices are tied to higher incomes and greater livelihood security, people can think beyond immediate survival and consider longer-term natural resource management issues.

Means to a conservation end

In the COMACO program in Zambia the team encourages local farmers to form small groups and agree to adopt conservation farming practices, stop hunting bushmeat, turn in their firearms, and provide the authorities intelligence on poachers coming into their communities. As a tangible, economic incentive to comply with these conservation friendly practices farmers get to sell their crops using the It's Wild! brand and receive a price premium and increased livelihood security as a result.

Second, a desired outcome of conservation is the economic security of local families. By contributing to the management of wildlife and wild places, communities prevent degradation and loss. In turn, the food, firewood, building materials and clean water that derive from these sustainably managed places directly support families in the bottom billion of the planet's population — those who depend upon nature for their well-being and have few, if any, alternatives. In this way, successful conservation leads to better livelihoods, creating a virtuous circle of sustainable management of nature.

Well-being derived from conservation

For millennia the Efe and Mbuti peoples of the Ituri Forest in northeastern DR Congo have depended on hunting wildlife and gathering forest products to feed and clothe their families and to define their cultural identities. A wave of deforestation is advancing towards the Ituri from the densely populated south, and commercial bushmeat hunters risk stripping the forest of its wildlife. Establishment of the Okapi Wildlife Reserve (RFO) is helping secure over 1 million hectares of forest in the Ituri. Effective conservation of the RFO will not only protect the iconic okapi, forest elephant, buffalo, chimpanzee, and 11 species of primates, it will secure the forest dependent livelihoods and cultural identities of the Efe and Mbuti, preventing their physical and economic displacement by immigrant families from the Kivu region of DR Congo.

Finally, conservationists have an ethical and moral obligation to "first do no harm". Our initiatives should not lead to increased poverty or disenfranchisement. For example, we cannot expect local communities to bear the brunt of crop damage due to elephants as our projects strengthen elephant population numbers - we have a moral obligation to develop effective mitigation measures. And to ensure that local communities do not unfairly shoulder the costs of conservation, which is a global public good.
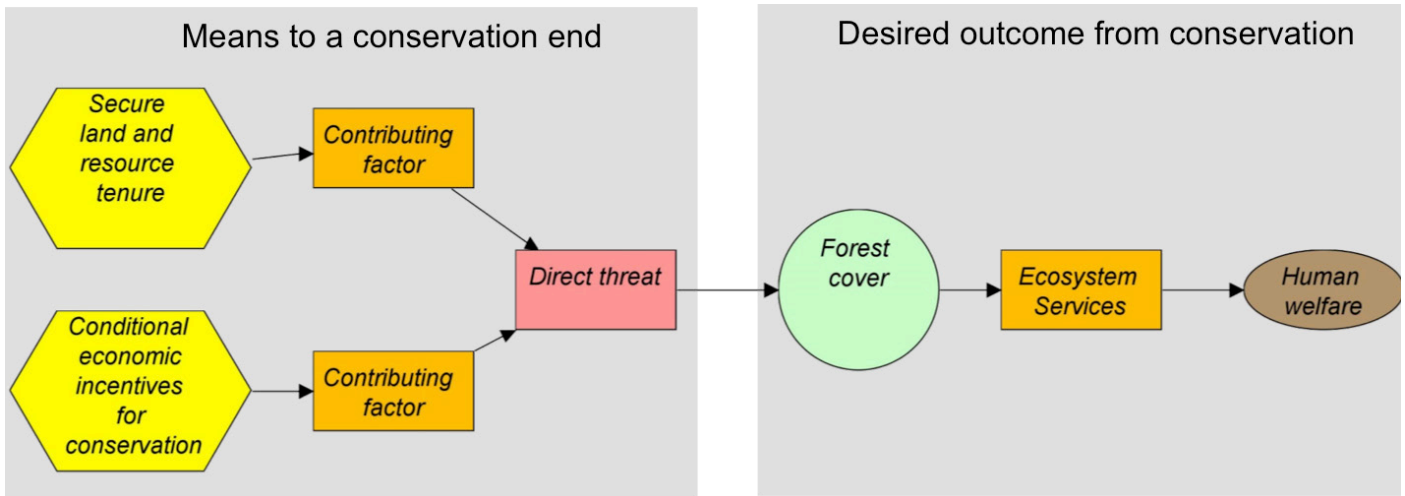
Figure 2: Stylized conceptual model showing how market and non-market based strategies that directly benefit people can been incentives to reduce biodiversity threats, leading to improved ecosystem services that also improve human welfare.

CHAPTER 2: WHY THE BNS?
WELL-BEING DEFINED BY LOCAL PEOPLE

Figure 3: Different peoples have different definitions of basic necessities. This Toposa family packs all of their goods into this donkey carrier; their wealth is defined more by the number of cattle and access to good grazing lands and water than by furniture or access to produce markets. Credit: Michelle Wieland, WCS

I. What is well-being, and how is it measured?

Conservation organizations have an ethical and moral obligation to ensure that conservation actions do not harm the well-being of the local people who live within the landscapes and seascapes where they work. But what is well-being? Is it the opposite of poverty? And how do we measure well-being?

Figure 4: Different views on poverty and well-being. Credit: WCS

There is no shortage of ways that field staff and university researchers have used to measure well-being. Some methods use qualitative participatory assessments of people's livelihoods and sense of food security. These are typically relatively inexpensive, do not require a great deal of staff training, but because they can be very subjective are more difficult to replicate to track well-being trends over time. Other methods involve detailed quantitative surveys of people's income, consumption, and assets. These do allow trends in family well-being to be tracked over time, but like the World Bank Living Standards Measurement Study are typically expensive to implement. Still others use health measures like Body Mass Index and mid-upper-arm-circumference to assess well-being.

Figure 5: Different ways of measuring human well-being

These methods require extensive training to implement well and demand a lot from interviewees. What they all share is an outsider's view of what well-being means, and a heavy reliance on income as a measure. As a result people living on less than $1 or $2 per day are often considered poor, when they themselves do not.

II. UN Definition of Poverty - A locally relevant measure

There is another way to think about well-being. It comes from the sense that everybody needs certain things to lead a good life, where basic needs are met. The United Nations has long argued that poor people are poor because they lack basic necessities. But that begs the questions "what are the basic necessities for a good life and who decides what these are?"

A lack of basic necessities?

Figure 6: A seemingly 'barren' village from Batéké, Congo. What basic services do residents here think are missing? Credit: Diane Detoeuf, WCS

Rick Davies figured out that people themselves should define what the basic necessities they need for a life where basic needs are met. And thus he invented the Basic Necessities Survey (BNS). The BNS assumes that people themselves know best what goods and services are basic necessities. And those basic necessities are things all families should have and no families should live without. The BNS is well-being defined by local perceptions. It is quantitative, requires only modest amounts of staff training, and is easily replicated to track trends in well-being over time. It is for these reasons that the BNS is a cost effective approach to assessing and tracking the well-being impacts of conservation and development projects.

The Basic Necessities Survey
  - A tool to assess poverty defined by local perceptions
  - Interview to determine assets and services considered basic necessities
    - Something that all household should have
    - And none should do without
  - The results allow you to compare households within a village or compare between villages

The BNS process is comprised of 9 steps:

1. Village selection	2. Conduct focus groups to generate a candidate list of goods and services	3. Develop a survey with final list and related conservation questions
4. Create a BNS data entry sheet on paper or using an electronic tablet	5. Select households to be surveyed	6. Conduct the BNS interview
7. Enter data from the paper datasheet information into the BNS database	8. Analyze the data to generate wellbeing scores for each surveyed household	9. Visualize and share the results with your colleagues and with surveyed villages

The following six chapters describe how you and your teams can conduct these 9 steps to work together with communities to develop a monitoring system for well-being.

CHAPTER 3: SELECTING VILLAGES TO SURVEY

Figure 7: A rural village in Sudan. In sparsely populated areas like this, choosing villages may be easy. What about protected areas encircled by 200 villages? Credit: Michelle Wieland, WCS

In this chapter we will explain how to select villages to be surveyed and if possible identify control villages that have not received assistance from your conservation or development organization to compare to villages that have likely benefited or been adversely affected by your project interventions.

I. Selecting project villages to survey

Deciding how many villages to visit to conduct basic necessities surveys of households depends a lot on how difficult or easy it is to travel to the area, and then to each village. It is important to remember that variation in household livelihoods is typically much greater between households resident in different villages than between households in the same village. This is because access to natural resources, markets, health clinics, schools and wage labor are likely to be very similar or the same for households resident in the same village.

Select villages to survey

- Visit as many villages as you can given constraints of time and money
- Pick which project villages you will survey
- Pick control villages

Project villages are those that you are impacting or want to have impact on, by conducting any type of conservation action – such as environmental education, land and resource zoning, economic incentives, or training. To understand how conservation actions might influence household livelihoods we need to do two things:

- First survey villages where we have conducted different activities, and

- Second control for factors like population size, market access, distance to health clinic and school, or distance to the protected area boundary.

Select project villages

Pick villages that have different attributes:
- Conservation actions
- Population size
- Distance to markets
- Access to clinic
- Access to schools
- Distance to the protected area border

There is no single answer on how many villages to survey. If you have the time and financial resources, try to survey all villages within which you have conducted some type of conservation action. If you work with a lot of villages and travelling to them is time consuming, try to sample a minimum of 10 villages. The sample you select should include small and large villages, isolated and less isolated, different ethnic groups, and different livelihood specializations such as fishing, crafts or hunting.

How many villages to visit?

- All if possible
- All if fewer than 10
- If more than 10 exist, at least a random sample of 10 villages

We will discuss household sampling in the next chapter.

II. Selecting control villages

Control villages are important to visit and survey because they help to evaluate whether conservation actions were responsible for any observed changes in household livelihoods. Without control villages you would never know if an observed increase in well-being in your project villages was a result of your actions or just a happy consequence of something that affected all villages. For example a change in the national exchange rate might have reduced the cost of imports, which allowed all households to by more goods and accumulate more assets. So for every project village it would be ideal to select a "matching" control village. Please remember that absolute matches are never possible. If you have the resources, pick an equal number of control villages as you have survey villages to survey. Otherwise make sure that you have at least 2 or 3 control villages consisting of at least 60 households in total.
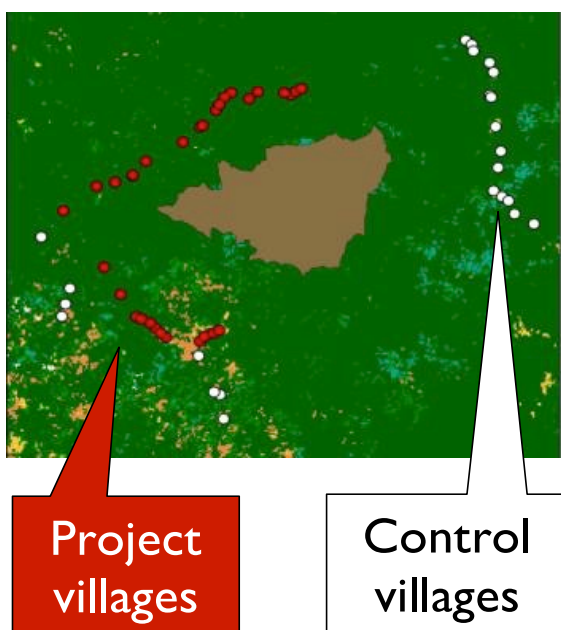
What is a BNS control village?
- Matches project villages
  - Same ethnic groups
  - Population size
  - Distance to markets
  - Access to clinic
  - Access to schools
  - Distance to the park or reserve border
- But
  - No conservation actions

Figure 8: Sampling of project and control villages

Developments to keep track of

Be sure to document changes that occur after your baseline BNS survey, for example a new road through a village or outside development project. These may differentially impact project or control village well-being and thus influence your long-term comparison analysis.

CHAPTER 4: SELECTING HOUSEHOLDS TO SURVEY

Figure 9: A large village in the Central African Republic demonstrates the complexities of developing robust household sampling designs. Credit: WCS

In this chapter we are going to explain how to decide how many households to interview and how to select these households.

Basic sampling rules

- If a village has less than 30 households survey all households
- If a village has >30 and <100 households pick a random sample (n=30) of all households
- If a village has >100 households divide it into districts and pick a random sample of at least 10 households in each district for a total sample size of no less than 30

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1. Survey in a small village

With village members draw a map of the location of all houses in the village. For each house note whether the house is made of inexpensive materials (mud walls, grass/leaf roof), moderately expensive materials (wood walls, and corrugated tin roof), or expensive materials (brick or concrete block walls, and tile roof). This is a simple proxy for wealth and it allows you to make a rough assessment of proportion of better-off vs. poor people. Please remember that these three house construction quality categories are examples, but they are a useful way to survey households with different levels of wealth. In some villages all houses may be made of exactly the same materials, or there may only be two different types of household, or there may be four or five different kinds of house construction. What is most important is that you try to rank house construction along a scale from poor to wealthy. If house construction does not differ within the village, another option is to interview the village leader and ask him or her to sort each household listed on cards into three piles: poorest, middle, wealthiest. Once you have a map of the location of the all houses and each house is ranked by some qualitative measure of wealth you can randomly select which houses to survey.

To randomly select houses do the following:

- Number each house on the map.
- Cut 5x5 cm scraps of paper to equal the number of houses.
- Write the number of each house on a separate scrap of paper.
- Calculate the proportion of each household wealth class in the village (class% = houses in wealth class1/ total houses in village).
- Calculate the number of houses to survey in each class by multiplying class% by total sample size (minimum 30). If the number is less than 10 set the sample size to 10. If 10 households is more than the total number of households in that class then survey all households in that wealth class.
- For each wealth class in which you are not going to survey all the households, place the house-numbered paper scraps into a bag and, without looking, pull out one at a time until you have selected the number calculated in the previous step.
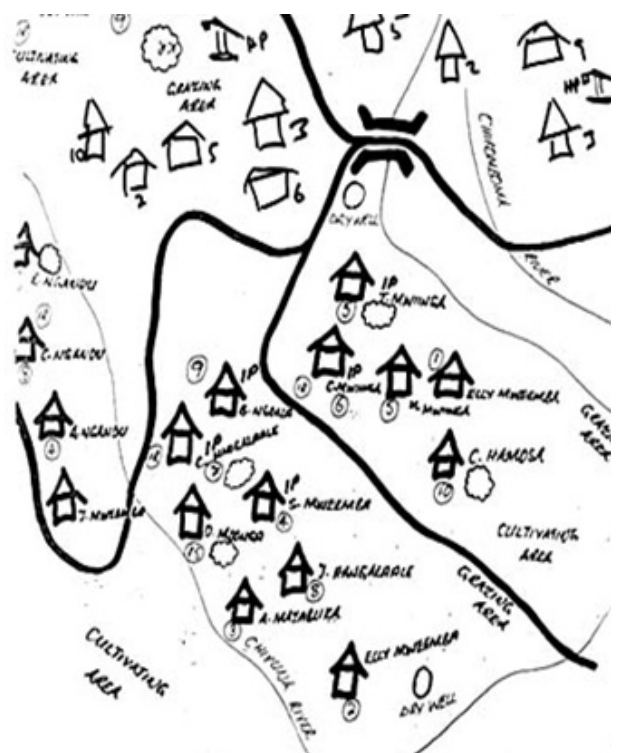
II. Example

Let us use an example where, when we mapped the village, we found that there were 45 households situated along two dirt roads. The village is separated into two districts by a river with both sides accessible across a bridge on the main road.
- 8 houses are built with expensive materials
- 14 houses are built with modestly costly materials
- 23 houses are built with low cost materials

All houses in the village should be given a unique number
- 18% of households are wealthy
- 31% are mid range
- 51% are poor

Assuming that we want to conduct a survey on a sample of 30 households, that means we need to survey
- 30 x 0.51 poor households = 15
- 30 x 0.31 mid-range households = 9, so we round up to the minimum sample of 10
- 8 wealthy households, which is fewer than 10, so we survey them all.
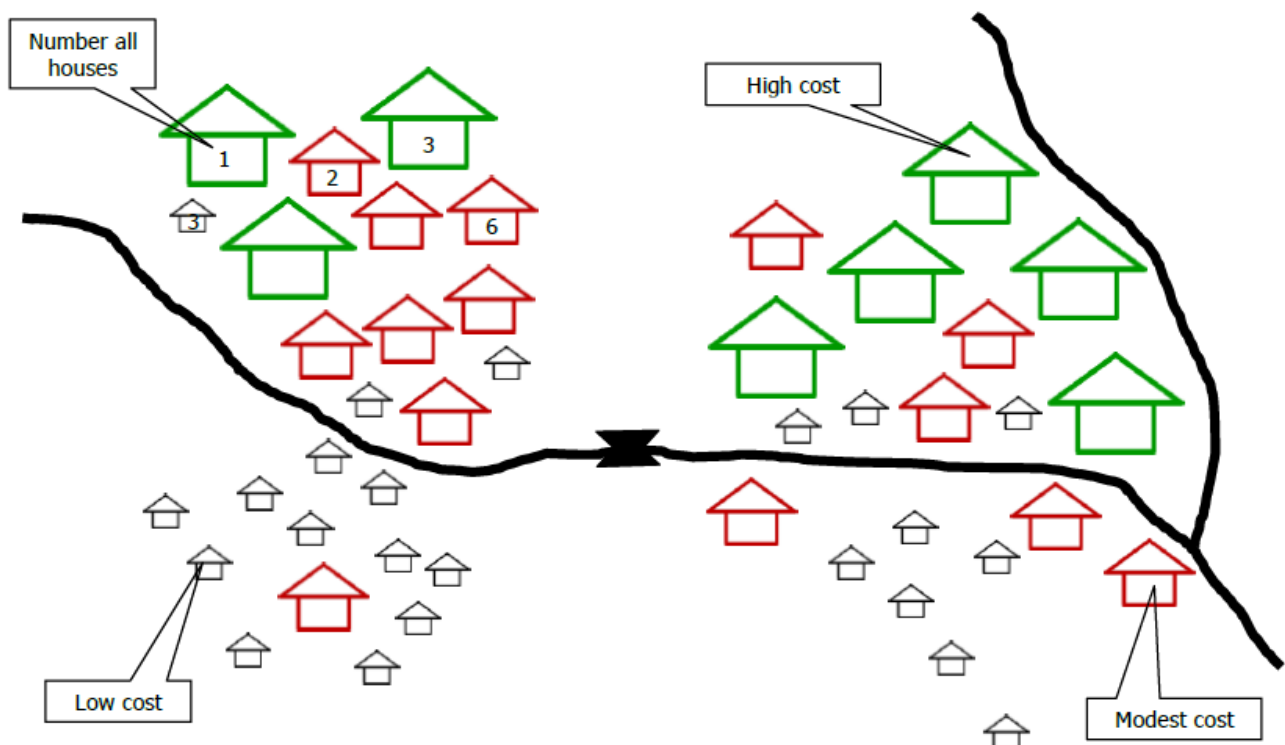

Figure 10: Participatory mapping of a village can help in the selection process of households.

III. Survey in a large village or town

- When a village or town has more than 100 households
    - ~ Find out if it has distinct districts and draw these on a map
    - ~ If it does not have districts divide the town into 4 roughly equally sized areas
- For each district go to the centre point
- Randomly select at least 10 households in each district for a total sample size not less than 30.

1. A town with districts

For each district, mark the approximate centre point on a map. Walk or drive to as near each centre point as possible. Place four 5 x 5 cm scraps of paper into a bag. Each piece is marked with one of the following left, right, forward, and back. Select one piece of paper from the bag, and start walking along a road or path that is closest to the direction indicated on the piece paper. Select the 2nd house on the left, then, travelling in the same direction the 2nd house on the right, and so on until you have selected 10 households. If you come to the end of the district before you have selected 10 households, return to the original center location and select one of the three remaining scraps of paper from the bag, and following that direction, selecting households as before, until you have selected a total of 10.
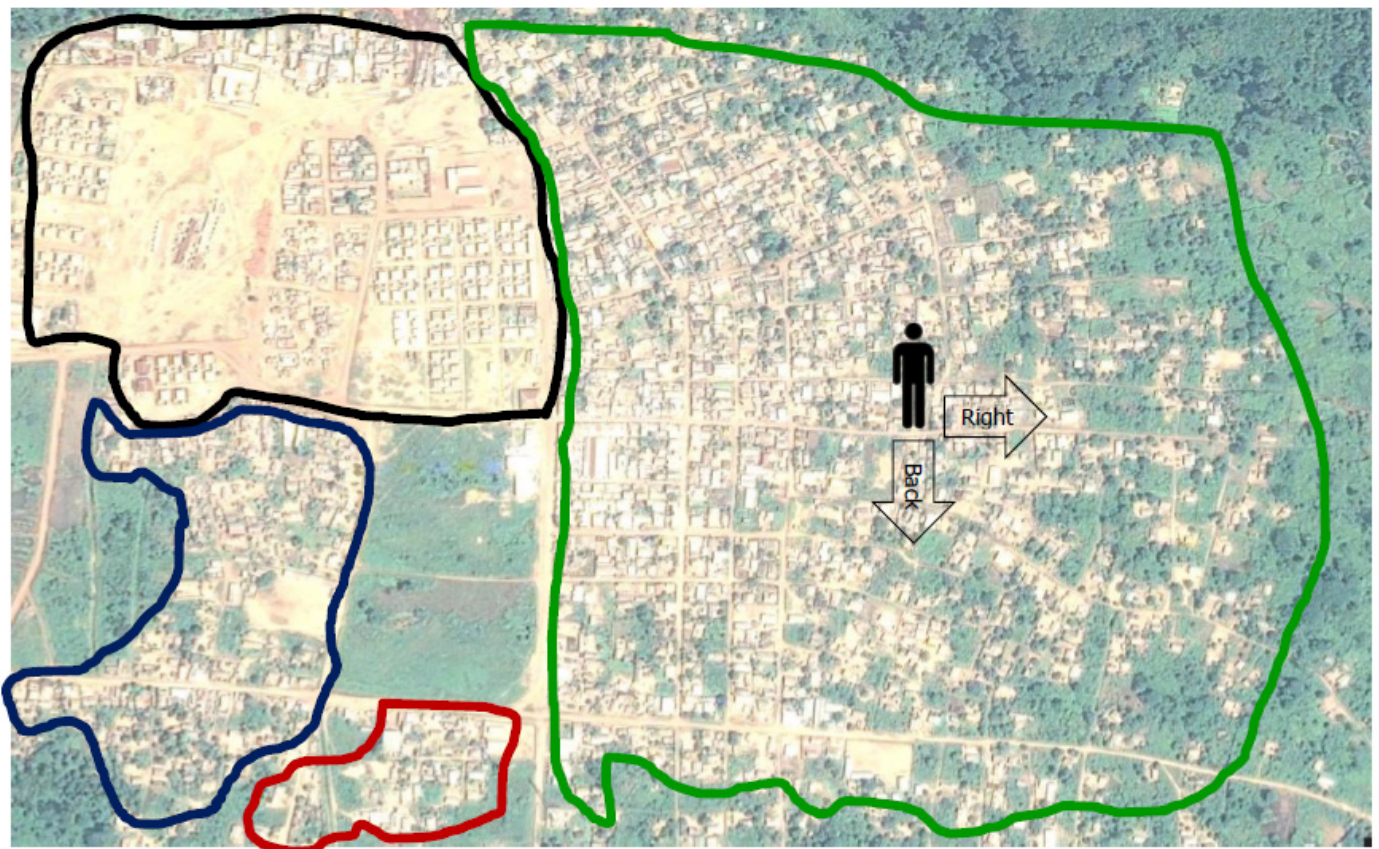

Figure 11: A town divided into districts

2. A town with no districts

In towns that have no recognized districts divide the town into four roughly equal areas. Draw the approximate centre of each area. And conduct the random selection as described for towns with districts.
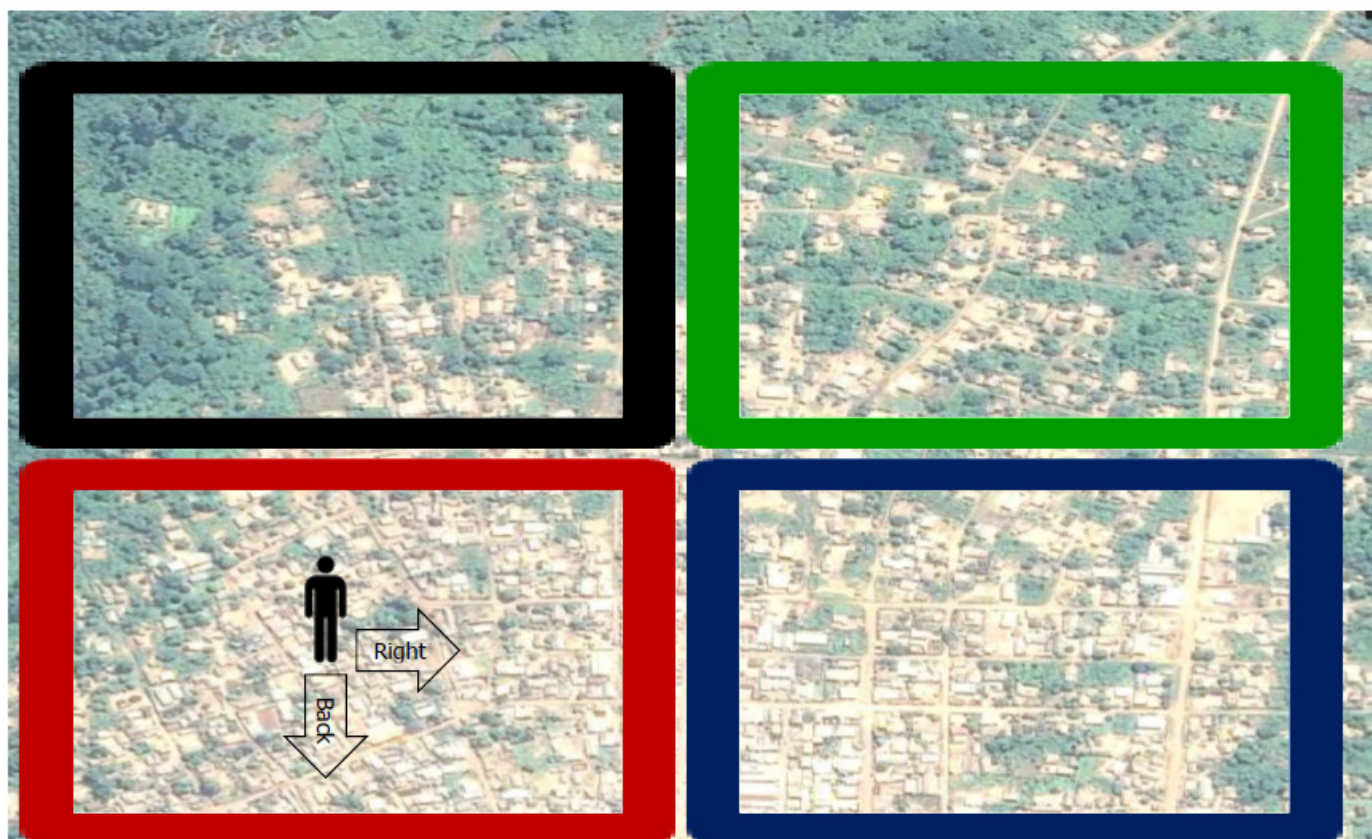
Figure 12: A town divided into blocks

IV. Going further: statistical sample size

If you want to have a robust statistical sample size—if you have time and resources—then you can be more scientific in the way to choose your sample size:

- If you want to choose a sample size that will allow you to statistically detect differences in mean BNS score in a village from one time period to the next, then you need a pilot data set for which you calculate the mean and standard deviation (sigma) of the population.
- Then use a sample size calculator like this http://www.statisticalsolutions.net/pss_calc.php
- For example let's say that in the pilot test 60% of the families were below the BNS poverty line (0.6; SD 0.85) and that you wanted to detect a 10% decline in families in poverty (i.e., from 0.6 to 0.5)
- Enter 0.6 for mu(0) and 0.5 for mu(1), 0.85 for sigma, 0.05 for alpha (the probability of making a Type I error).
- If you set the power at 0.2 for a small effect size, 0.5 for a medium effect size or 0.8 for a large effect size, the required sample size will be 91, 278 and 568 respectively.

Alternative method: Keeping it simple

There is another, somewhat simpler way to sample households to survey in a village if you work in more challenging circumstances and want to use BNS only for monitoring purposes. The basic rule remains: survey 30 households per village. If there are fewer than 30 households in the village, the rule is to survey all of them. To select households in a village with more than 30 households do the following: first draw a map of all houses in the village and given each house a unique number (starting from 1), being helped by somebody who knows it very well. Then, divide the village into four equal blocks. In each block, identify the households that have been beneficiaries of any project or study you have implemented. As the BNS aims to determine the impact of conservation efforts these "study households" will be automatically selected for the BNS so that you can follow trends in their well-being over time.

To select at least 30 households add all "study households" to the survey list. Then randomly select a non-study household from the first block and add the household number to the survey list. Repeat the random selection with each block in order until you have a survey list of at least 30 households.

In these 30 households, in order to respect gender and be able to compare female headed households and male headed households, you will need to survey 15 women and 15 men.

CHAPTER 5: CREATING A LIST OF GOODS AND SERVICES FOR THE BNS

Figure 13: Charcoal from the Ituri, DR Congo. Charcoal can be either be a good or service, and is often a good item to follow for forest conservation. But as it is a consumable that a household may not have on hand, charcoal is better included as the service "access to charcoal". Credit: Michelle Wieland, WCS

Collecting BNS data and analyzing the results is relatively simple and does not require specialist skills. But for the results to be a meaningful indicator of household well-being, getting the right list of goods and services is vital. So in this chapter we are going to explain what you need to do to ensure that you have a goods and service list that truly reflects what different people within the community think are important to their well-being.

1. Focus groups

A time saving way to interview local people about what goods and services they believe are essential for meeting their basic needs is to use focus groups. These are small groups of 4-8 people that you have invited to talk with you together as a group, and you just need to ask them what are, for them, the goods and services that are truly essential for their lives. And, most importantly, you should encourage each group to talk amongst themselves. It is also good to make sure you do not have more than 8 people in each focus group. Children and curious people will probably want to come and see what is happening, but letting them listening, or worse, giving their opinion, could make the discussion difficult to manage, disturb the participants, and lead to bad results. The only people who should be attending the focus groups are the ones that have actually been invited.

Why focus groups?

- Platform for discussion on actual basic necessities of life
- Focus groups are a time saving approach and helps limit extreme ideas that at times are voiced by individuals whose points of view may not reflect that of the community.

1. Who to interview

It is important to remember two things when conducting focus group interviews. First, in groups it is quite common for some individuals to dominate the conversation; at times women may not talk in front of men; minorities may say little when in a group with the other more politically dominant ethnic groups. Second, we know that women have different views than men about what are necessities for life. Young people also have different ideas on basic needs than older people. Similarly people in minority ethnic groups may value different goods and services than men and women from the majority ethnic group.

Figure 14: A focus group of adult men in Nouabalé-Ndoki, Congo. Credit: Diane Detoeuf, WCS

To capture these differences, we need to conduct several groups composed of different community members:
- Men-only and women-only groups;
- Groups of young people and groups of older people;
- Groups of ethnic minorities.

For example, in a village without ethnic minorities, you should lead 4 focus groups:
- Young women
- Adult women
- Young men
- Adult men

And for a village with ethnic minorities, for example forest people, you should add 2 groups:
- Minority (Baka, Mbuti, etc.) women
- Minority men

Lead a good focus group

- Some individuals may dominate the discussion
- Women may not talk much in front of men
- Minorities may not talk when in a group composed mostly of the ethnic majority
- Interview different groups separately
  - o Men and women
  - o Youth and elders
  - o Minorities

To know more about how to conduct a focus group, see http://pdf.usaid.gov/pdf_docs/pnadw110.pdf

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In all of these groups, it is essential that everyone can contribute to the discussion on basic needs and nobody's voice is excluded. Listening to everyone's point of view is very important and if someone has not spoken during the focus group it is important to specifically ask him or her for his or her opinion. The purpose of the focus groups is to identify goods and services that are basic necessities for the majority of the community. Though it might be appropriate to include the wealthiest man or woman in the village it is important to avoid including individuals who, because of their political influence (village chief, policeman, government official, etc.), may dominate the discussion and inhibit others from talking and providing their points of view. In any case, it is crucial to make everybody feel comfortable enough to express him or herself honestly and without any shame on what they see as basic necessities. Pay special attention to including the opinions of women and minorities. It is the role of the interviewer to ensure that all focus group participants get an opportunity to talk and that the discussion is not dominated by one or a few individuals. During focus groups some participants may use the opportunity to complain about life in general, ask for help or gifts, and talk about their personal issues. The interviewer has to make it clear that this is not the purpose of the focus groups and guide the discussion back to the challenge of identifying basic goods and services. Managing a focus group is an art and if your team is not experienced in running focus groups it is worth inviting someone to help build the team's capacity.

2. Where to do focus groups

Focus groups should be done in villages with different characteristics (i.e., village size, ecological conditions, wealth based on house construction, distance to markets, access to schools and clinics) to ensure that you generate a list of basic needs that represents the range of households in the area.

3. Making introductions

Before starting, a good introduction about the purpose of the focus group will ensure that people feel comfortable to talk and that you get the information you need. So it is important to:

- Tell people that you want to be able to work with them to define what things help them live a life without worry or hardship;
- Describe what we will do with the results;
- Let people know they can leave the focus group at any time;
- Ask for their verbal consent to participate.

Avoiding a wish list

It is possible that people in the focus groups will think that the list of goods and services is a list of "gifts" that you will provide to them. Thus it is very important to make it clear from the beginning that it is not the case. Explain that the list will help measure human well-being of their community over time. It is not a laundry list of goods your program will provide them, but well-being standards that they themselves want to see improving over time. Ensuring everybody clearly understands this at the beginning will help people to think about actual basic needs in the community and not just about what they would like someone to give them.

4. Eliciting responses

In the Democratic Republic of Congo, WCS found that many local people were having difficulty understanding what goods and services were necessary to meet their basic needs. This is not unusual particularly if focus groups are not conducted in the local language (not good practice) and people do not know or trust the focus group facilitators, or see the focus group as an opportunity to ask for development assistance.

To help focus group participants grasp a clear understanding of what goods and services are basic necessities, the DR Congo team asked them to imagine that they are really thirsty, and they have a very large container of water. The amount that they need to drink from the container to quench their thirst could be thought of as a basic necessity (it meets their basic needs); the water that remains after they have quenched their thirst is still useful, but is more than what was needed, thus more than a basic necessity.

5. Some practical tips

To facilitate the next step of selecting the items for the final list, record each good or service on a colored index card, using a different color for each focus group. If some participants are illiterate, draw as well as write each response to allow everybody to follow the activity on paper.

Figure 15: Focus group results on colored cards in Batéké, Congo. Credit: Diane Detoeuf, WCS

II. Compiling the final list from the focus group results

This step is probably the most crucial in the BNS process because the final list will be used everywhere in a landscape for the baseline survey, and will be re-used in all future surveys. Thus it must be appropriate to the entire protected area or landscape, reflecting and taking account of all the variety of basic needs for the different social groups in the area.

The final list should have about 35 village-defined goods and services (about equal numbers of each). To help you select the final items that you will put in the list from all the goods and services that came up in the focus groups, use the following 5 criteria in which you can categorize your goods and services:

N°	Criteria definition	Examples from DRC
1	Items everyone thinks are basic necessities and everyone has (or has access to).	Access to clean water Machete
2	Items everyone thinks are basic necessities, around half of all people have, but everyone will get as they become richer and services improve.	Access to health clinics Dining table with chairs
3	Items everyone thinks are basic necessities, but only some people have, but many may get as they become richer and services improve.	Access to secondary schools Cell phones
4	Items some people thought were basic necessities, which may increase in importance in the future. These are items people in wealthier towns might consider basic necessities.	Satellite TV service Televisions
5	Items no one thought were basic necessities, and which people in towns did not cite as basic necessities.	Health insurance Automobile

Once you have all your colored cards from the different focus groups, you should lay them out on a table or the floor. Combine all duplicates and set all but one of the duplicates aside. Now split the cards into 5 groupings that correspond to the 5 criteria described above. Then choose between 5 and 7 goods and services from each of the five criteria groupings, making sure to select at least one card of each color from the five piles. It is important to not have too many category 1 and 2 items in the final list because as people get wealthier there will come a time when all households own all category 1 and 2 items. Why is that bad? If all households own all items, everyone will appear the same and thus you won't be able to compare the real differences between them.

1. Items to avoid to ensure your list is clear and easily measurable

Goods should be durable goods that can be used multiple times. Consumable goods (i.e., food, beverages, or petrol) can run out and should not be included in the list because it will bias your survey. (Think of how often have you run out of milk at home; would not having it at the time of a survey change your wealth category?). If one of these consumable items is very important, turn it into a service, for example "Meal 3 times a day".

The list also should not have services that can be easily misinterpreted. Keep in mind that for each element of your final list, people will have to answer 3 simple questions: Do you have it? Is it really necessary? How many do you have? Thus it is very important that it is actually easy to give a yes or no answer with confidence. If the description of a good or service is too vague, it will take too much time for people to answer the question. For example:

o   "Good school" Asking if someone has access to a good school can be very complicated; the school might be good, but the household may not have the money to send their kids to this school. Or, vice versa. The interviewee may have difficulty whether to answer yes or no to the question. Be very specific about services—defining what type of school you are talking about, what is "good" and how you define having access to it, to ensure similar interpretation from both sides.

o   "Cooking utensils" Here the difficulty occurs with the "how many do you have" question. Most likely the interviewee will not know exactly how many pots, plates, spoons and spatulas the household has, you don't want to waste time for them to count, and the multiple monetary values for different items will complicate your work. Choose one kitchen utensil to add to the list that is easy to count.

2. What is access?

Access to a service is sometimes difficult to define thus it is important to think about what it means. Does it mean the service is available? Or does it mean that it is available and the household has the ability to purchase/use that service? For example secondary school may be in a town nearby, but if a household doesn't have the money to pay for accommodation, do they really have access to it? For the BNS, access means that a household is actually able to use the service, not that the service simply exists in the village.

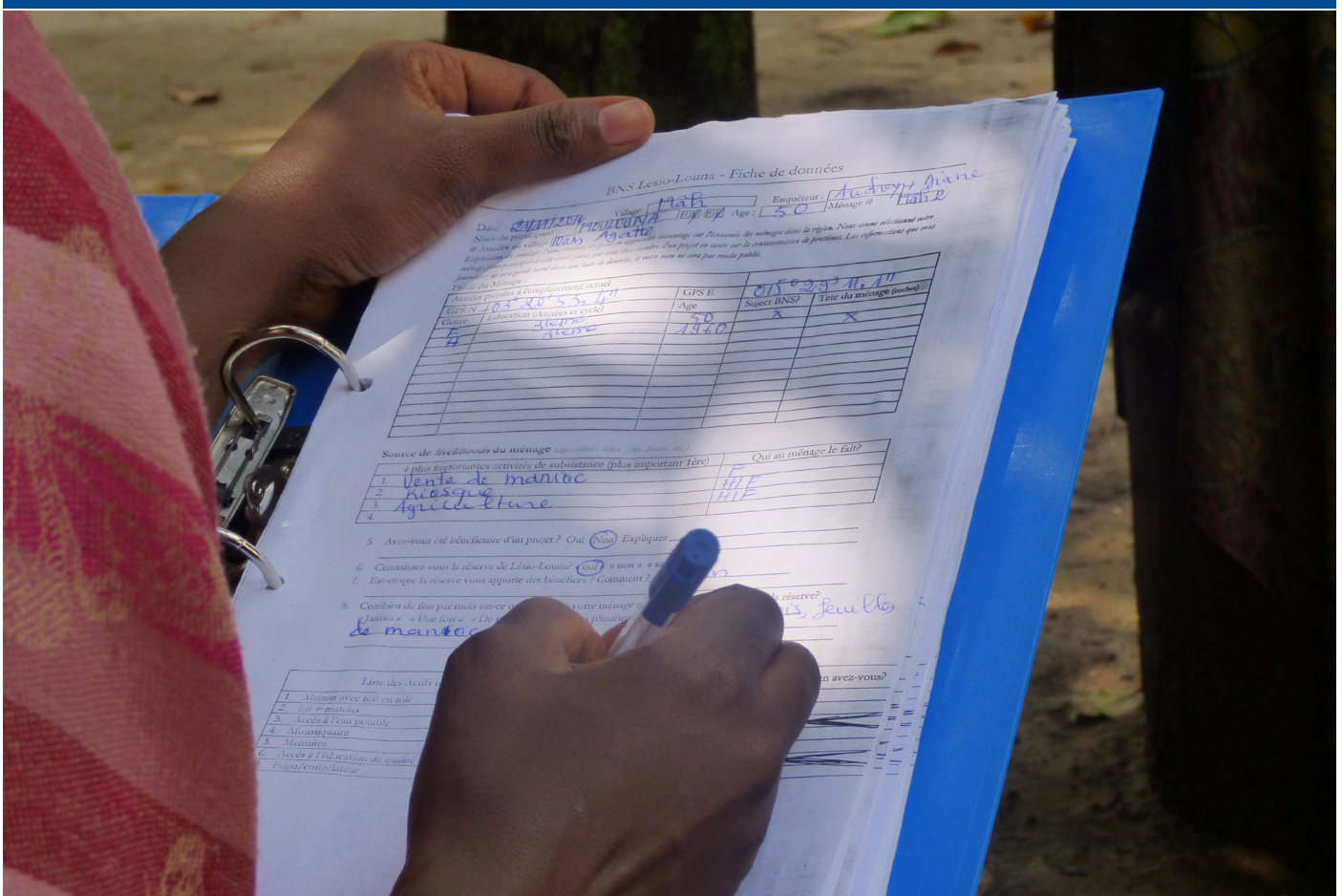# CHAPTER 6: CREATING DATA ENTRY SHEET

Figure 16: Example of data entry sheet in Batéké, Congo. Credit: Diane Detoeuf, WCS

In this chapter we are going to explain how to prepare a paper BNS data sheets (See Appendix for an example). In the future the authors will add an appendix to this manual to describe how to create electronic data sheets for an Android tablet computer.

I. BNS List

Now that you have created your list of BNS goods and services, it is easy to create a paper data sheet for each survey. The BNS data sheet has two parts:

1. First part: household information and supplemental questions

On the first page, you need to create space to record the following information:

- **Survey information**
  o The date the survey was conducted
  o The name of the village
  o The name of the person in the household who participated in the survey
  o The unique ID number of the household surveyed (this is vital to keep separate each survey from one another)
- **Household demography**
  For each member of the family, record their gender, the number of years he/she spent in school, the year of birth, and their ethnicity. You must also record both who is the person surveyed and who is the head of the household.

BNS Léfini/Lésio-Louna - Datasheet

Date: _____ Village: _____ Interviewer: _____
Participant name: _____ M F /B P Age : _____ Household # _____
Years in the village ___
Survey explanation: We are here to learn more about the economy of households around the area. We selected your household to be part of this study because you are a member of WCS project. The information you will provide will not be revealed, and your name will not be made public.
Household profile:

GPS N		GPS E		
Gender	Education (# years in school)	Year of birth	Subject BNS? (Tick)	Head of household (tick)

Household livelihoods *(agriculture, farming, ntfp, hunting, etc)*

4 most important livelihood activities (1st is more important)	Who is doing it?
1.	
2.	
3.	
4.	

5. Have you been beneficiary of a project yet? Yes No Explain if Yes _____
_____
6. Do you know the Lefini fauna reserve? Yes No Not sure
7. Is the Lefini reserve providing some socioeconomic benefit? Yes?

Figure 17: Example of the household information and supplemental questions on the BNS datasheet

- **Household livelihoods activities**
  Record the 4 most important livelihood activities done by the household, and for each, who is primarily responsible for doing each activity.
- **Supplemental questions**
  When going to household within your project area, you often have other data that you would like to collect that complement the BNS and conservation activities. Questions useful in profiling well being levels of different groups of people, understanding attitude of people towards the protected area, use of natural resource inside the protected area. As a guide, limit the supplemental questions to five. Some examples from our Congo BNS surveys:
  1. Have you ever been beneficiary of a livelihood project? Describe.
  2. Do you know the park/reserve?
  3. Is the park/reserve providing you any socioeconomic benefit?
  4. How many times last month did you or someone in your household collect natural resources inside the protected area? *And here you can have a list of few natural resources that you can find in your landscape*
  5. How many times last month have you experienced crop damage from wildlife?

List of goods and services	Do you have it?	Is it really a necessity?	How many do you have?
1. House with sheet metal roof			
2. Bed + mattress			
3. Mosquito net			
4. Radio			
5. Fridge/freezer			
6. 20l water can			
7. Jerrican			
8. Table			

The BNS+ and Standard Lists

This mechanism makes the BNS even more relevant to your conservation activities by allowing you to add additional goods and services to the list as defined by the focus group process to follow over time. Often times what conservationists or donors might think are important are not necessarily considered by villagers to be basic necessities, or may be items that they may have forgotten to include but are things that often come up at meetings. Examples could include: access to domestic meat, freedom from human-wildlife conflict, access to family planning, or access to wage labor. Simply add these items randomly throughout the village-derived list, and keep them noted in the database. After conducting your surveys you can determine: 1) if these items are indeed considered basic necessities to the population, and 2) what percentage of the population have them.

If you are working across large groups of protected areas, and you want to compare BNS scores across this area, you can develop a standard list of items by which to compare households and villages. The goods and services may be items identified by the community; they may not have been. Items in a standard list are still yes/no questions, with quantity asked. An example list from Central Africa, including standard items, is found below.

2. Second part: the list

It is here that you will use the final list that you created. We might worry that if the first four goods and services on the list are very likely considered basic necessities by everyone, that people might be influenced by that and say that the next item or items on the list are also basic necessities. To ensure that the order we present the list of goods and services does not influence peoples' answers, put the goods and services in random order in a table. If you want to have an even more robust approach, create 2 lists, each in a different random order. At each house, toss a coin to decide which list is used for that survey.

With your list, add 3 columns for the 3 basic questions for each element:
- Do you have it? Yes = 1 and No = 0;
- Do you think it is a true basic necessity that every family must have and no family can live without? Again Yes=1 and No=0;
- How many do you have? Ask this question only for the goods that the household actually owns, whether in that house or in a secondary house.

Example: the Ituri list in DRC

Items	Do you have it? Yes=1 No=0	Is it really necessary? Yes=1 No=0	How many do you have?
Car			
Women taking care of women in health structures			✕
Plate			
Machete			
Bed + mattress			
Meal twice a day			✕
Wood table and set of chairs			
A one-hectare farm			
Access to potable water within 15 minutes walking distance			✕
Hunting net			
Access to microfinance			✕
Bike			
TV			
Access to adult learning			✕
Freezer			
Equal pay for equal work			✕
House with metal sheet roofing			
WC			
Access to agro-processing machines within 1 km			✕
Cooking pot			
Chicken			
Motorbike			
Have the financial means to provide health care for the family			✕
20-Liters jerry can			
Availability of good quality health care			
Tractor			
Access to animal protein 3 times a week			
Phone			
Small livestock (goat, sheep, pig)			
Access to electricity			✕
Radio			
Sewing machine			
BNS+			
Improved cookstoves			
Women participating in decision making in the village			✕
Access to natural resources within 1 hour walking distance			✕

Remember, you do not need to fill in quantities (or prices) for services, as they are often impossible to quantify.

This is tricky; simpler language "access to health care" provides an easy yes-no answer, but doesn't get at the basic need for quality identified by the people

These items were part of the standard list but not identified by the people themselves

Central Africa's Standard List: Enhancing BNS's relevance for conservation

In the two Congos, 11 USAID-funded landscapes in the CARPE program are using the BNS, providing a unique opportunity to harmonize protocols so that they are all able to:
- Compare key BNS results across all the landscapes
- Formally incorporate and monitor gender and minority concerns (items 1,2,3, 4)
- Monitor important regional natural resource issues (items 5, 6, 8, 9)

To do that they created a list of 10 standardized elements (8 services and 2 goods) based on the results of over 40 focus groups held across Central Africa. Now, every CARPE landscape will integrate these items into their list, even if some of the goods and services where not identified in their own focus groups.

N°	Standard elements for CARPE landscapes in the Congos
1	Women medics available to care for women in health clinics
2	Women participate in decision making in the village
3	Make a living without discrimination: same salary for the same work
4	Access to adult learning
5	Access to potable water within 15 minutes walk
6	Access to animal protein 3 times a week
7	Meal twice a day
8	Access to natural resources within an hour's walk of home
9	Improved woodstoves/cookstoves or fuel-efficient stoves
10	Live chickens

II. Village price of goods

To rank order households by wealth and to differentiate between household that own all goods and have access to all services on the BNS list (i.e., they are at or above the poverty line) we need to calculate the total value of all the goods they own. To do that, you must record the village price for all goods in the list. This means that you need to create a second data sheet using the BNS list as a template and simply change one column to indicate the village sales price for each good on the list – see Appendix II for an example of the data sheet. If there are different brands or different qualities of a good on sale in the village then enter the average sales price. If the good is not available in the village, then ask people the price they would have to pay to buy this from a trader, or find out what the price is in the nearest market town. The market price is likely to be lower than the village price - as it does not include the cost of transportation to get the good to the village - you are interested in relative not absolute prices so this does not really matter. Include the village where you obtained the prices and the date on the datasheet. The date is vital as this allows you over time to develop a Consumer Price Index for the village, which enables you to measure price fluctuations and to estimate the economic inflation rate over time.

CHAPTER 7: CONDUCT SURVEYS

Figure 18: A BNS survey in Nouabalé-Ndoki, Congo. Credit: Diane Detoeuf, WCS

In this chapter we will explain how to conduct a basic necessities survey by interviewing a woman or man of a household.

I. Before going to households

Prior to conducting a BNS survey we assume that you have already talked with the village elders and residents to explain the purpose of the study and to ask their permission to conduct surveys in the village. It is extremely important to take the time to explain to the authorities and to the participants why your organization is conducting the BNS, detailing the process, showing how they can benefit from the results of the surveys and ensure they completely understand the objective of your presence in the village. To facilitate this you can give local authorities factsheet that explains the BNS method and reasoning behind it. When the community and its leaders have given you permission to conduct the basic necessities survey you should ask them what is the best day of the week and time to visit. This helps enormously to increase the probability that people will be available, avoiding the frustration of not finding people at home and having to track them down in the village or out in the fields. It also ensures that the interview does not conflict with peoples' work, making people more willing to devote the time needed to complete the interview. At the chosen time period, visit each household on your survey list (see Chapter 4 on selecting households) and complete the BNS interview.

Figure 19: Takana women in an informal basic necessities discussion in Takana, Bolivia. Including women in the BNS is essential as they play a large role in natural resource use and household well-being. Credit: WCS

II. During BNS interviews

Here are some tips for conducting the interviews with households:

1. Take gender into account
Take gender into account; conduct surveys with as many women as men.

2. Respect people's time
As easy as the BNS is, do not take too much time to survey each household. The first basic rule for conducting BNS is that each survey shouldn't take more than 30 minutes.

3. Use local language
You want to make sure people clearly understand you. For that, use the language that people are the most comfortable with, usually their native (birth) language. Surveys will be easier and will go faster if the interviewer knows how to speak in the local language of the village.

4. Ensure surveys are conducted in private
Some of the questions during the BNS may be quite personal. For a more honest answer, ensure that no one else is listening during the survey. Find a private space where you and your interviewee can sit quietly together without being overheard. Other people present during the interview can influence the answers, especially if they come in the middle of the interview without knowing what the BNS is about. If someone does attempt to join the interview, politely tell him or her that you will soon be finished and would be happy to talk with him or her at that time. This is especially true for women whose husband is listening; his presence may make her too shy to give honest answers.

5. Use women to survey women
A woman will always feel more comfortable if the interviewer is a woman, so it is ideal if you can have at least one woman in your team of interviewers. In the same way, to interview a member of a minority group, one of the interviewer should be from this minority group too.

Interviewing a man with more than one wife

It is possible that you survey a household with two or more wives. If the two wives are living in the same house, then you should take into account all the goods owned by both of them as there are consisting in one single household. But if they are living in different houses, and not eating at the same cookstove, then they should be considered different households.

6. Introduce the survey well
It is really important that people feel comfortable enough to be completely honest with you. To achieve that, you need a good introduction. People might not understand why you are asking so many questions about their family. In some cultures, asking for ages can be taken as a way to gather information to perform witchcraft. In the introduction you should explain that this survey will help you understand the linkages between natural resources and well-being of communities, and that neither their names nor their answers will be published; their confidential information won't be used to put their family at risk in any way.

7. Ensure BNS is not a wish list

You don't want people to believe that the list we are asking them about is a wish list you will provide them if they think it is necessary but they don't have it. If so, you risk everything becoming a basic necessity and thus ruin your analysis. It is important to ensure that interviewees are very honest with you. If they know you are not going to bring them more mosquito nets, you have more chance they will tell you the true number of mosquito nets they have.

8. Define basic necessity

If people don't understand what a basic necessity is, they will probably answer "yes" to the entire set of questions, making it very difficult for you later to analyze the answers. The mistake is to think that necessity is the same as important. It is not. Here is the definition of a basic necessity:

> ## "Something all families should have and no family should live without"

The interviewee must understand that a basic need is more than just something they would like to have to make their lives better; it is more than something that is important to have. It is something that you can't live without, something essential to life. The problem is, in some languages words like "necessary" or "essential" don't exist. So before going to the field, sit with your team to define 'basic necessity' in the local language. You can give examples, like the one about the container of water we talked about in Chapter 5 (see box below). After you finish your explanation, to check if the person you are interviewing understands the difference between a basic need and something important, you can ask two questions, using goods or services that are not in your list. For example, if in your final list you don't have a pair of shoes and sunglasses, you can ask:

- "Do you think a pair of shoes is a necessity?"

It most likely is, and most people would answer yes if they understood the explanation you gave them before. If they don't, then you have to explain it again. If they do, then you can ask another question:

- "Do you think sunglasses are a necessity?"

It is most likely not, and most people, if they understood the explanation you gave them before, should answer no. If they don't, it means you have to again explain the definition of a basic necessity, and the difference with something they would like to have. If they do, it means you can start your survey.

An example to define basic necessity – Using a bottle of water

Ask your interviewees to imagine that they are really thirsty, and they have a very large container of water. The amount that they need to drink from the container to quench their thirst is a basic necessity; the water that remains after they have quenched their thirst is still useful, but is more than what was basically needed.

9. Do not influence answers

The answers must come from the person you are surveying, not from you or from anybody else. So when you are asking the 3 key questions, be careful not do it in a way that could influence the answers. A leading question, like:

- "A gun is necessary, right?"

Will result in "yes" most of the time. Furthermore, even if the answer surprises you (e.g. a respondent says a car is a basic need), don't follow up by asking "Are you sure?", as this can influence the interviewee's opinions on basic necessities. An important rule is to simply write down the first opinion the person gives to you.

10. Look around you

To triangulate questions about having goods and services, to verify people's responses and be more confident about your data, use your visual sense. For example, if you ask someone, do you have a plastic chair, and she/he answers no but you are sitting on a plastic chair in front of the house, then you can ask who owns the chair.

11. Overcome issues with age reporting

In some cultures it can be very difficult for people to know their age or the age of their children. If this is the case ask about historical events (where you born before or after independence), do comparisons with people they know (are you older than Ngutcha?), or inquire about their child's current school level. When all else fails, simply estimate the person's age according to their appearance.

To lead a good BNS interview

- Take gender into account
- Take 30 minutes maximum
- Use local language
- Interview in private
- Use women to survey women ; minorities to survey minorities
- Provide a clear and concise introduction
- Define basic necessity
- Ensure BNS is NOT a wish list
- Don't influence answers
- Look around you
- Estimate ages if they don't know
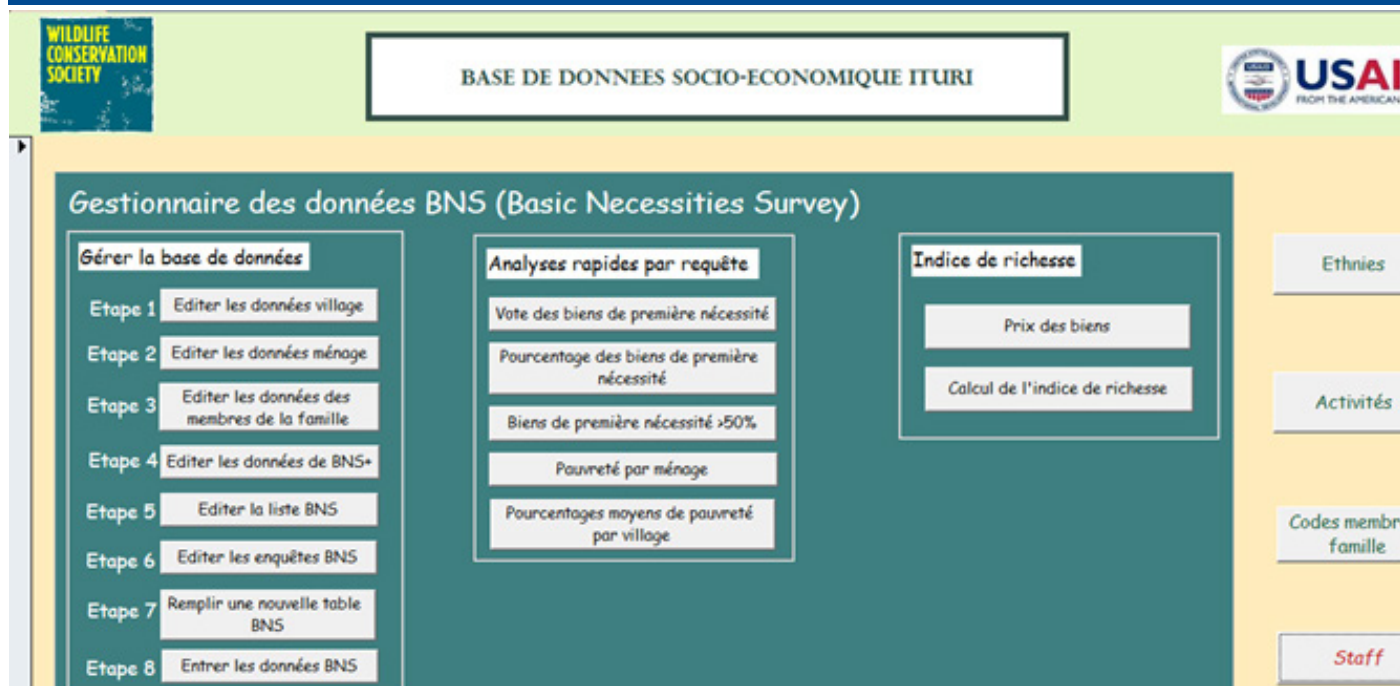
Figure 20: Homepage of the BNS database for Central Africa

In this chapter, we will see how to:

    I.   Enter the data into the BNS database
    II. Analyze the data to generate well-being scores for each surveyed household
    III. Visualize the results using graphs or bar charts, then share the results with colleagues and with surveyed villages
    IV. Do deeper analyses

I. Enter the data in the **BNS** database

In programs that have multiple projects, each project will develop their own BNS database, but to ensure that the program is able to compare well-being across projects will likely want to share a core set of BNS components. In the future there will be a link to an access database model at: http://globalinitiatives.wcs.org/PeopleandConservation/WCSResources/Publications.aspx
When you open the database in Microsoft Access, a navigation will automatically appear. Just follow the steps to enter and analyze your BNS data!
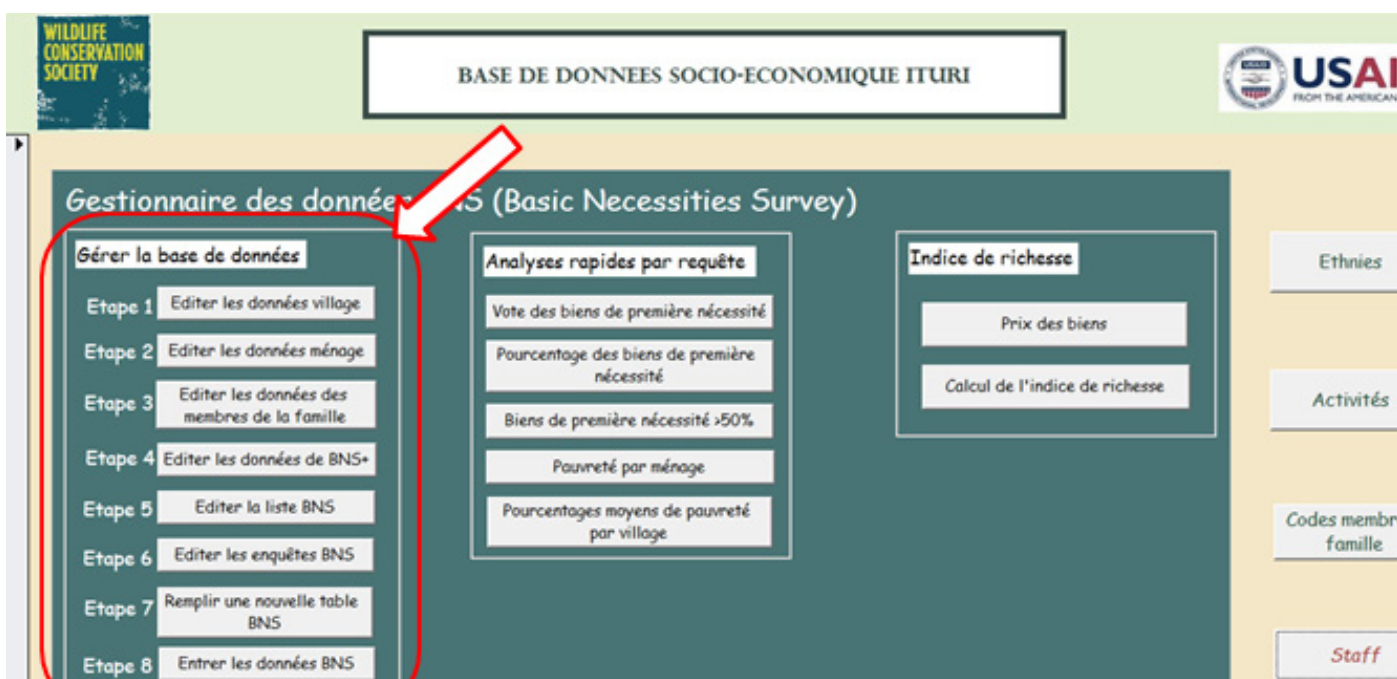
Figure 21: Homepage of the BNS database with the data entry component highlighted

Step 1: Enter the list of villages surveyed

First enter the names of all the villages where you implemented a BNS survey, and specify in which landscape they are located.

Figure 22: Village list page in the database

Step 2: Enter the list of households surveyed

Next enter a list of every household surveyed, giving each a unique ID. This unique ID can be for example a 3-letter code for the village, plus a number for the household of this village (e.g., EPU2 is the 2nd household in Epulu). After entering the household ID, enter the village, the latitude and longitude coordinates of the household, and the date of when this information was collected. A household may move in the future so recording the date of known residence in the village is important.

Figure 23: Household list page in the database

Step 3: Enter the list of people surveyed

For each household you next should record the last name, first name, household ID, gender, year of birth and ethnicity of the person surveyed. This information is found on the header of the BNS data sheet.

Figure 24: Participant information page in the database

Step 4: Profile and supplemental question information

In this step, all supplementary survey information about the household is entered into the database. These data are used to understand how households differ from one another in terms of the demography of household members. To do this select the village and the household from the Drop-Down lists in the top banner. Then enter the relevant information in the three red boxes shown in the diagram below.

Figure 25: Household profile and supplemental questions page in the database, sections highlighted in red

Step 5: Enter the BNS list

Now you need to enter the final BNS goods and services that you developed as a result of the focus groups. At this stage enter a short description of each good and service in both the local language and a national or trade language (e.g. French, English, Spanish, Bahasa), specify if it is a good or a service, whether it is a good or service identify by the project and not the focus groups (i.e. BNS+), and from which focus group the item came from.

Figure 26: BNS list page in the database

Step 6: Record survey details for each completed BNS series

In this step, enter basic survey information for each BNS completed in a village (i.e. the name of the village, its unique ID, the date you started to undertake the BNS in this village, and the BNS list that you used). You will need to do this for each village, and each time you complete a BNS. These data help keep track of each survey completed within each village over time.

Figure 27: Survey BNS page in the database

Step 7: Create a blank BNS table for each surveyed completed

This step creates a blank (empty) data-table for you to enter the information on all data sheets recorded during a survey. There will be one data sheet to enter for each household surveyed.
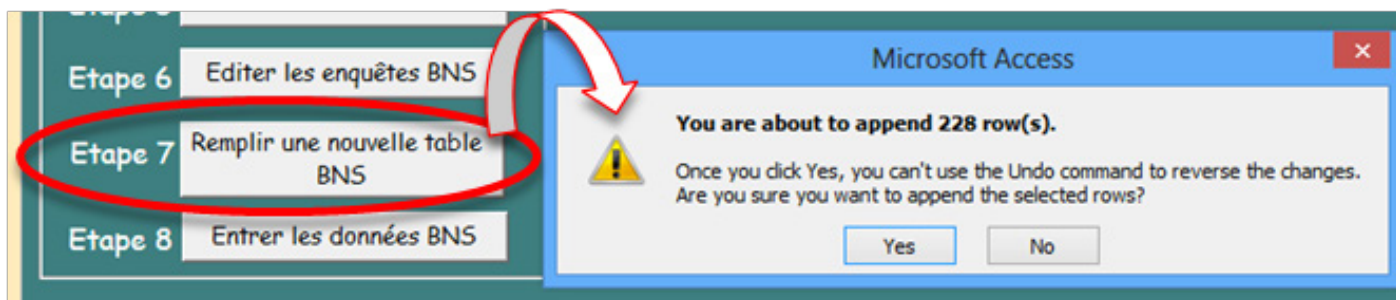

Figure 28: Step to create the BNS table in the database

Step 8: Enter the results

This is the final step for entering BNS data. Select the correct village BNS series and the household, then enter the data from the second page of the corresponding BNS survey paper data sheet.

Figure 29: Household survey data entry page of the database

II. Analyze the data and generate results

Entering data into the Microsoft Access database makes it very simple to conduct initial analyses and generate useful results, because Access allows us to automate the process and produce results with the click of a button.

1. Viewing how many "votes" each good and service received

The BNS is a locally-relevant measure of well-being because it is the people themselves who decide which goods and services are basic necessities and which are not. Every time an interviewee answers "yes" to the question "is this good or service a basic necessity?", she or he is effectively casting a vote for that good or service. To view how many "votes" each good or service received simply click on the "votes" button and Access will automatically display a table of results. This table can be copied and pasted into Excel to share with others.

Figure 30: To tally how households "voted" on which goods and services were basic necessities simply click on the analysis button after all data have been entered

2. Translating those votes into a basic necessity percentage – the relative importance or weight the community places on each good and service

The percentage of all households who believe the item is a basic necessity is the community **weighting** for that item. The higher the percentage, the greater the community consensus that the item is indeed a basic necessity. The second button of the analysis calculates this weighting, or percentage of people who answered "yes" to the question "is it really a necessity".

Figure 31: Percentages table for the basic needs, developed from the button on the welcome page.

3. Basic necessities > 50%

After we count up all the yes votes, those goods and services that get score ("vote") of 50% or higher are, by local opinion, considered basic necessities. To identify those goods and services that received 50% or more of the "votes", click on the >50% button on the welcome page and Access will display a table of goods and services considered basic necessities by popular opinion (of those surveyed in a particular village). Items with a weighting of <50% are not considered basic necessities and are excluded from the next three steps in the analysis.

Figure 32: Selection of the basic needs where the percentage is over 50%

4. Well-being per household

The ultimate objective of the BNS is to calculate a well-being score for each surveyed household. To do this, the database will go through several steps (See Appendix III):

- First, a well-being Score for each household is calculated by multiplying the "Do you have it" score (Yes = 1 and No = 0) by the weighting for that item, and summing over all items that have been kept in the last step, meaning the items for which the weighting is over 50%;

- Then, the Maximum Possible Score for the list is calculated for the whole set of basic necessities by summing the value of all weighting for each item in the list that is considered a basic necessity (i.e., those with 50% or more of the "votes"). This would thus be the score that would be accrued if a household had every single item that was voted a basic necessity;

- Finally, a well-being Index is calculated for each household by dividing their total well-being Score by the Maximum Possible Score. The index will range from 0% where the family possesses none of the basic necessities and is in extreme poverty, to 100% where the family possesses all basic necessities.

The fourth button automatically does all these last steps and presents to you a table that lists a well-being index for each surveyed household.
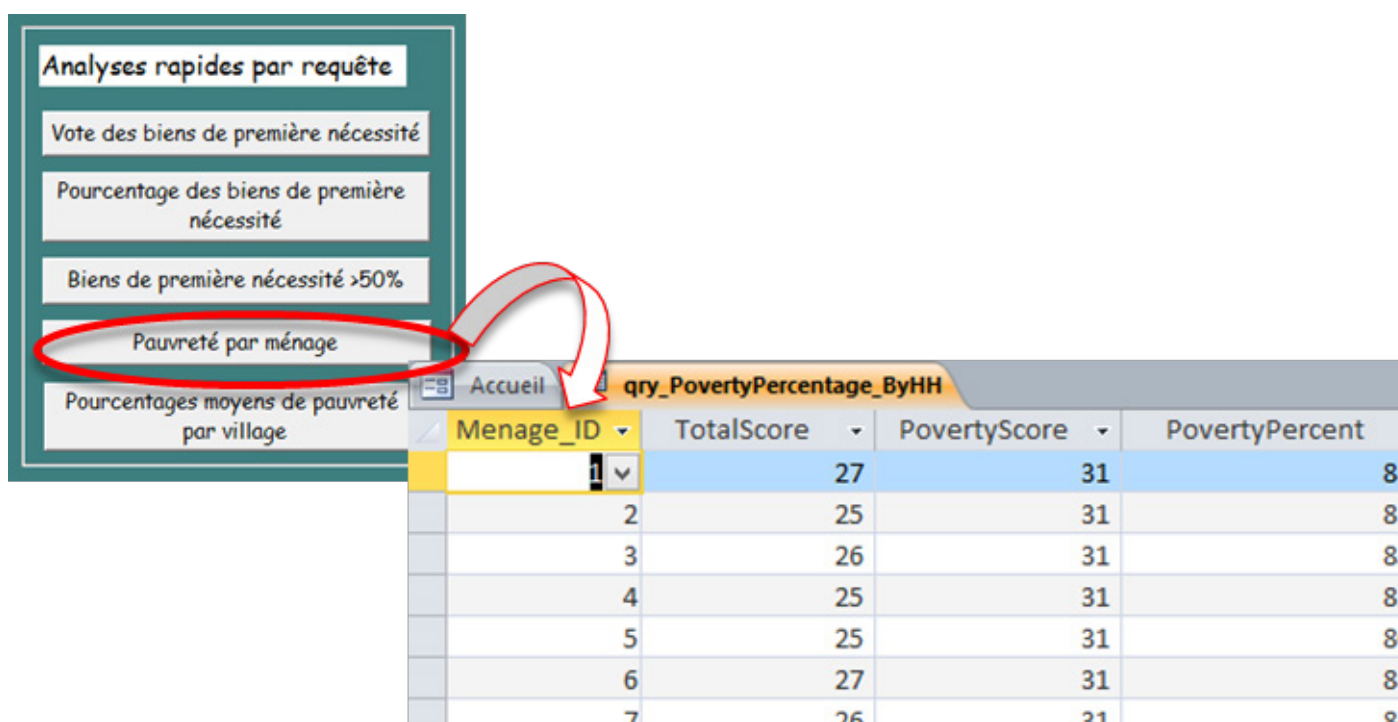
Figure 33: Calculation of the well-being index per household; the higher the percentage, the better off the household.

5. Presenting the average well-being index per village in a graphic

Finally, with the last button you can create a graphic with the average well-being percentages within each village. Remember, the lower the score, the poorer the households (e.g., an average score of 80% suggests that on average households are below the well-being because they lack 20% of the goods and services considered as life's basic necessities).

Average well-being per household per village
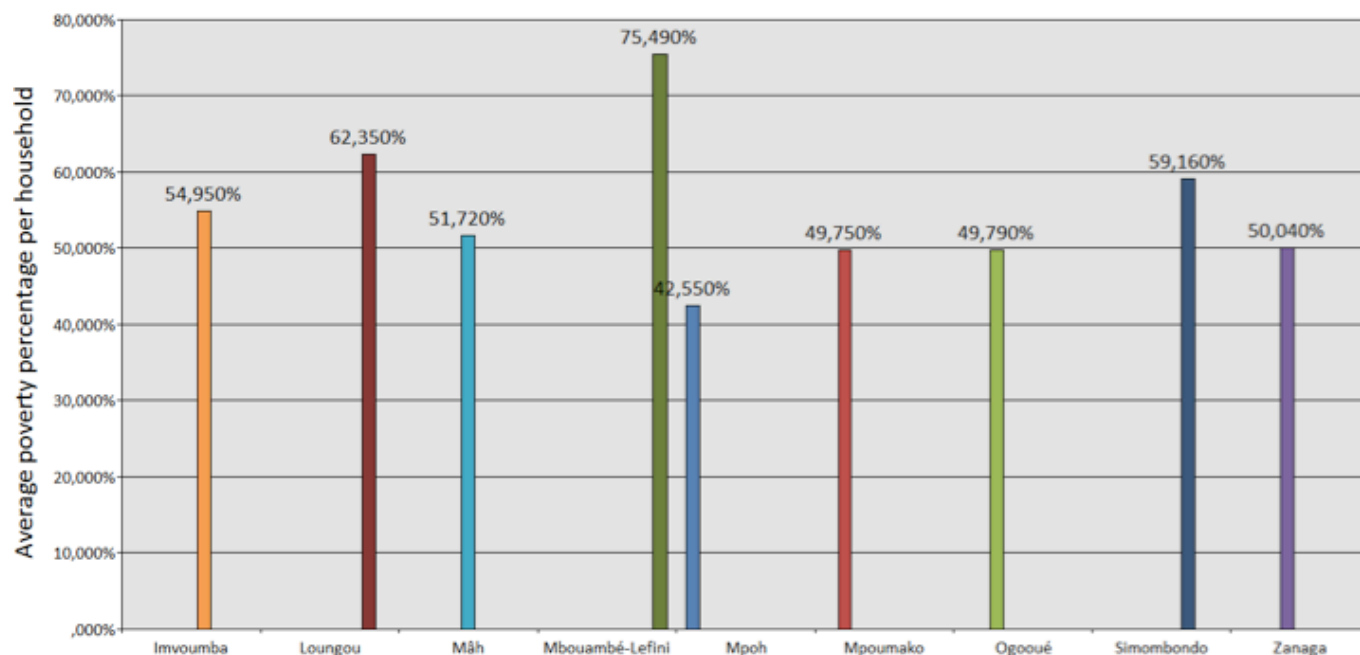
Figure 34: Example of the average well-being level per village, calculated by averaging out scores from each household in the village. In this graph, Mpoh is the poorest whereas households in Mbouambe-Lefini are the closest to achieving their basic needs.

III. The wealth indicator

Finally we can calculate the total value of assets owned by the family to generate a Wealth Index. Remember that this is not all assets owned by the family, nor is it just those assets considered locally to be basic necessities, it is all assets within the final list that are owned by the family. The Wealth Index allows you to differentiate amongst wealthier families, i.e., those that scored near 100% on the Well-being Index.

Enter the prices of the goods that you recorded in each village, and the Access database will automatically calculate a wealth index per household.
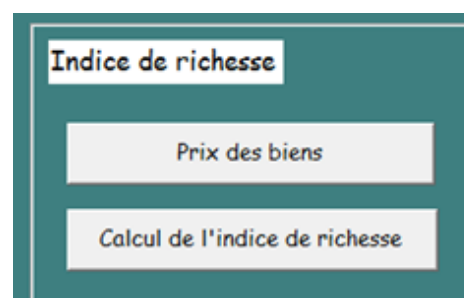
Figure 35: Button to calculate the wealth indicator

About the wealth indicator

Note it is unlikely that most households will own 100% of the goods and services, even if they are 'wealthy'. These households may choose not to have some of the more basic items. Therefore use both the well-being index and wealth indicator for analysis.

IV. Deeper analyses

This BNS database not only allows you to do a basic analysis of household's well-being. It also allows you to do a lot of different analyses, for example:
- Determine the poorest households in a village;
- Determine which villages are poorest;
- Examine differences between ethnicities, male vs. female headed households, natural resource indicators;
- Link wealth level to natural resource use level (data developed from other surveys), for example using BNS results vs. bushmeat consumption results;
- Compare different landscapes by using a standard list;
- Compare observed changes over time;
- Compare projects beneficiaries vs. non beneficiaries to examine your impact.

You can also export the results into a GIS to have an overview of the indicators across villages, landscapes, countries or regions.

All these different analyses can be incorporated into your database, and with a simple press button, create nice graphs and maps.

BNS Follow-up

The BNS is a monitoring tool for your interventions, either for specific households who are beneficiaries of a livelihood project, or amongst an entire village that has received support from your organization. This means surveys should be done at regular intervals with the same villages, and if possible, the same households. We suggest conducting the survey with the same households every 2-3 years; initiating surveys with new beneficiaries as relevant.

The question to ask yourself before conducting the BNS is, are the goods and services that community described 2 years before still relevant to them? Or are there new items that should be added to the list? The BNS must be both able to adapt to new needs (e.g. cell phone services), yet maintain the baseline list of goods and services.

When your team is ready to conduct future rounds of BNS, first conduct focus groups similar to those outlined in the chapters above. Talk to them about the original list—are there new goods and services that are now important? Although you cannot delete items from the BNS, you can add (in moderation) a few items as necessary.

Once you have any new items, go through the process highlighted in this document, particularly Chapter 9 in which you need to create a new BNS series list for the villages.

RECAP PROCESS

1
- Select villages to be surveyed
- Identify sample villages and control villages that have not received your assistance

2
- Conduct interviews to generate a candidate list of goods and services. This could be as many as 50-70 items

3
- From the candidate list pick 30-35 goods and services.
- If you want, add a few services that you or your donor are particularly interested in following over time or across villages, such as "able to each bushmeat at least once a week" or "I can find work at the community sawmill"

4
- Create a BNS data entry sheet on paper or using an electronic tablet

5
- Select households to be surveyed. If there are only a few households in the village you may decide to survey all households. If there are too many household to survey everyone, then you will need to select a random sample of households to survey

6
- Talk with people to determine if there is a day of the week and time during the day when people would prefer to be surveyed
- Visit and conduct the BNS interview at all households to be surveyed
  - Determine if male or female head of household is available for an interview
  - Inform interviewee of purpose of the survey, anonymity, and consent to be interviewed
  - Conduct the BNS interview

7
- Once you have collected BNS data, enter data from the paper datasheet information into the BNS database

8
- Analyze the data to generate wellbeing scores for each surveyed household

9
- Take the results and visualize them using line graphs or bar charts, then share the results with your colleagues and with surveyed villages

APPENDICES

I. BNS data collection sheet – An example from Kahuzi-Biega, DR Congo

II. Village price of good datasheet – An example from Kahuzi-Biega, DR Congo

III. Explanation of the Well-being Index calculation

1. BNS Kahuzi-Biega - Data sheet

Date: [____] Village: [____] Interviewer: [____]
Participant name: [____] H F / B P Brith year: [____]
Year since living in the village [____] Household number [____]

Survey explanation: We are here to learn more about the economy of households around the area. We selected your household to be part of this study because you are a member of WCS project. The information you will provide will not be revealed, and your name will not be made public.

Household profile:

GPS N			GPS E		
Gender	Education (Number of years in school)		Year of birth	Subject BNS?	Head of household? (tick)

Household livelihoods *(agriculture, farming, hunting, etc)*

4 most important livelihood activities (1st is more important)	Who is doing it?
1.	
2.	
3.	
4.	

5. Have you been beneficiary of a project yet? Yes No Explain if yes _____
   _____

6. Do you know the Kahuzi-Biega National Park? Yes No Not sure

7. Is the park providing you some Socio-Economic benefits? How? _____
   _____

8. How many times last month did someone in your household go collect natural resources in the forest?

No	Resource	Number of times collected	Observations
1	Firewood		
2	Fish		
3	Liana		
4	Bushmeat		
5	Medicinal herb		
6	Stick		
8	Fruit		
9	Honey		
10	Other		

9. How many times last month did you suffer from crop damages linked to wildlife?
   _____

		List of goods and services	Do you have it?	Is it really necessary?	How many do you have?
1		Access to credit (500 $ minimum)			╳
2		Goat			
3		House in metal sheet plus bricks			
4		Access to secondary school			╳
5		Sewing machine			
6		A ½-hectare crop for agriculture			
7		Have the finance to pay for public transport			╳
8		Access to improved seeds			╳
9		Access to basic health care in the village			╳
10		Hoe			
11		Television			
12		Motorbike			
13		Machete			
14		Access to adult learning			╳
15		Have the finance to buy bio fertilizer			╳
16		6 wood chairs			
17		Live chicken			
18		Meal twice a day			╳
19		Pan			
20		Trident			
21		Phone			
22		Solar panel			
23		Access to a land for bamboo field			╳
24		Access to potable water within 15 minutes walk			╳
25		Axe			
27		20-Liters jerry can			
28		Basket			
29		Arrow			
BNS +					
A		Women participate in decision making in the village			╳
B		Access to natural resources within 15 minutes walk			╳
C		Make a living without discrimination			╳
D		Women medics available to care for women in health clinics			╳
E		Access to animal protein 3 times a week			╳
F		Absence of armed groups in the village			╳
G		Improved woodstoves			
H		Access to veterinary products	Availability	Finance	
			How many times last year did you use this service?		

II. BNS Kahuzi-Biega - Price of goods

	Village	
	Date	
	Liste des Actifs et Services	Prix
1	Accès au crédit consistant (500 $ au moins)	✕
2	Chèvre	
3	Maison en planches + tôles	
4	Accès à l'éducation secondaire (au moins 1 diplômé dans la famille)	✕
5	Machine à coudre	
6	Champ de 1/2 ha pour agriculture	
7	Avoir la possibilité de payer le transport en commun	✕
8	Accès aux semences ameliorées	✕
9	Accès aux soins de santé de base dans le village	✕
10	Houe	
11	Television	
12	Moto	
13	Machette	
14	Accès au développement des compétences des adultes	✕
15	Avoir la possibilité d'acheter des engrais organiques	✕
16	Salon complet (Fauteuils garnis en velours)	
17	6 chaîses en bois pour salle à manger	
18	Poulet vivant	
19	Repas 2 fois par jour	✕
20	Casseroles pour cuisine domestique	
21	Trident	
22	Téléphone	
23	Panneau solaire	
24	Accès à la terre pour un champ de bambou	✕
25	Accès à l'eau potable à moins de 15 minutes de marche	✕
26	Hache	
27	Pulverisateur (Agriculture et elevage)	
28	Bidon de 20 litres	
29	Gibecière/panier	
30	Flèche	

III. Example of wellbeing score data for a household from a BNS

Basic Necessities	Have now Yes=1, No=0	Weighting (% of necessity votes)	V. Well-being score (own it * weighting)
1 sμo of land per person	0	0.995	0.000
Electric light	1	0.995	0.995
Bicycle	1	0.995	0.995
Concrete rice drying yard	1	0.988	0.988
Wooden rice chest	1	0.986	0.986
3 meals a day	1	0.983	0.983
Buffalo or cow	0	0.981	0.000
All children studying up to level 2	0	0.981	0.000
Well with well head	0	0.979	0.000
Stone built house	0	0.976	0.000
Thick cotton blanket	1	0.971	0.971
Doctor visiting the house when sick	1	0.950	0.950
Electric fan	0	0.931	0.000
A new set of clothes each year	1	0.924	0.924
Livestock vaccination	0	0.919	0.000
Meat once a week	0	0.833	0.000
Pesticide pump	0	0.800	0.000
Watch	0	0.774	0.000
Access to loans	0	0.767	0.000
Radio	0	0.743	0.000
			7.793

Maximum score	18	=Sum(C2:C21)
Household's Well-being score	7.793	=Sum(D2:D21)
Household's Well-being index	43.29%	= $\frac{\text{Household's Score}}{\text{Maximum Score}}$

NB: Maximum score = sum of the weighting of all assets
and services considered by local families to be necessities

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