

Survey_Site 1_anonym.xlsx – Data collected in a Conservancy in the Zambezi region, Namibia

- **Title:** Social Metabolism and Material Flow Analysis: Household Resource Use and Throughput in one Conservancy in the Zambezi, Namibia.
- **Description:** The data was collected in the context of the ELNAC project (Enhanced Livelihoods and Natural Resource Management under Accelerated Climate Change: A large landscape social-ecological systems approach; <https://sasscal.org/sasscal-ii-research-portfolio/>). This dataset was collected in a whole and single Conservancy in the Zambezi region, Namibia, using the Kobo Tool application (<https://www.kobotoolbox.org/>). The data were gathered to support a Material Flow Analysis (MFA), which involves tracking resource extraction, including quantities of natural resources and artifacts, as well as biomass extraction from agriculture, fisheries, and forestry. Surveys were conducted in 156 households. Four similar data collection were undertaken in the KAZA region within the year. The corresponding datasets are linked to this one.
- **Number of enumerators:** 3
- **Estimation of enumerator bias:** Potential biases could arise from the use of local enumerators recruited from the conservancy. Familiarity between enumerators and respondents may have influenced responses, particularly on sensitive issues, leading to social desirability bias. At the same time, local enumerators facilitated communication through their knowledge of local languages and context. To mitigate the bias, enumerators received standardized training and used a structured questionnaire. A supervisor validation was also introduced during data collection to detect any anomalies. Key findings were also cross-referenced with participatory mapping exercises, key informant interviews, conservancy records, and a stakeholder feedback workshop.
- **Geographic Coverage:** An entire Conservancy in Namibia
- **Temporal Coverage:** The dataset captures information on resource extraction and consumption for the entire year of 2023.
- **Data Collection Period:** 01-22.03.2024
- **Comment to temporal coverage:** Data collection took place between February and March 2024 during a period of prolonged drought that had affected the entire Zambezi Region for over two years prior to this research. The drought resulted in crop losses and reduction in fishing opportunities due to the river drying up. The drought also affected wildlife in the area, thereby intensifying incidents of human-wildlife conflict. Therefore, the interpretation of these findings should take into the account the severity of the drought and the intensity of human-wildlife interactions, as both have exerted pressure on agricultural production, thereby forcing households to find alternative survival strategies.
- **Respondents:** The survey questionnaire was administered to randomly sampled households and was not restricted to farming households alone. In most cases, the respondent was the household head. However, when the household head was unavailable, their spouse was interviewed. In a small number of cases where neither the household head nor spouse was available, another adult member of the household with knowledge of the household's economic activities participated in the survey. Data collected included both individual and household-level information on livelihoods, production, and

consumption. The findings should be interpreted as reflecting a combination of individual and household-level perspectives.

- **Sample and coverage:** The conservancy population consisted of 216 households recorded in the conservancy registry. A random sample of 156 households, representing approximately 28% of all registered households was selected and surveyed.
- **Potential sample coverage bias:** The survey initially targeted 225 households (40% of registered households) but only 156 households (28%) were successfully surveyed because some households could not be reached. Many of the unreached households belonged to conservancy members employed outside the area and were therefore unavailable during the survey period, which may have led to an under-representation of their perspectives and resource use practices. In addition, the sampling frame was based on the conservancy registry and therefore excluded households that were not registered as conservancy members. However, unregistered households were few and largely belonged to foreign nationals employed within the conservancy who do not own crop fields and have a single hut households. As a result, the potential bias arising from their exclusion is likely to be minimal.
- **Anonymity:** All survey data were anonymized prior to analysis and sharing. Direct identifiers, including phone numbers and GPS coordinates, were removed or masked, while household and respondent identifiers were replaced with coded IDs. Location names were generalized to reduce geographic specificity, and any potentially identifying information contained in free-text responses was reviewed and redacted where necessary. Enumerator identities were retained only as coded references for quality assurance purposes, and no personal names were included in the analytical dataset. The linkage between original records and coded identifiers is stored separately in a secure file.
- **Keywords:** Material and Energy Flow Analysis (MEFA), Community-Based Natural Resource Management (CBNRM), Household Survey, Rural Livelihoods, Namibia, Zambezi, , conservation, conservancy.
- **Data Format:** XLSX
- **Data Completeness:** Some missing values were identified due to non-responses, data entry errors, or technical issues during data collection. Non-responses were marked as "NA", and data entry errors were cross-checked with survey records where possible. For variables with less than 5% missing data, median or mean imputation was applied, while those with significant gaps were retained as missing to avoid bias. Observations with excessive missing values were excluded from statistical analysis but kept in the raw dataset for reference.
- **Data Collection Method:** Field surveys, Kobo toolbox application (<https://www.kobotoolbox.org/>), face-to-face questionnaires.
- **Licensing:** dataset is made available under the Creative Commons Attribution 4.0 International (CC BY SA 4.0) license. Users are free to share, distribute, and adapt the dataset, provided proper attribution is given to the original authors. Any modifications or derivative works must also include proper citation.

- **Project:** The Enhanced Livelihoods and Natural Resource Management under Accelerated Climate Change (ELNAC; <https://sasscal.org/sasscal-ii-research-portfolio/>) is implemented under the Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) 2.0 initiative and is funded by the Federal Ministry of Education and Research (BMBF), Germany. ELNAC addresses the vivid and on-going human-wildlife conflict (HWC) in the KaZa Transfrontier Conservation Area. It assumes the conflict to be caused by the current conservation paradigm, which stigmatizes local communities (LCs) as degrading agents and excludes them from managing the natural resources around them. Not only livelihoods but also conservation outcomes are jeopardized through this process. ELNAC proposes that conservation, development and food security can be synergetic goals if managed under another (agroecological) paradigm. It proposes to integrate landscape analysis with the functional resource heterogeneity and Social-Ecological Systems frameworks to improve the governance of conservation areas and increase the self-determination of LCs in the conservation and food security objectives.

JLU Subproject: Socio-metabolism of CBNRM - Resource use and livelihoods under CBNRM schemes and in cooperatives: Central to the fair use of resources for multi-purpose goals and to the integration of various sources of knowledge is the question of power and power relations. By introducing concepts of political and social ecology in the analysis of communities-conservation systems, JLU addresses the political aspect by answering the following question: Who has or attempts to access which resources, and how are livelihood and conservation land uses integrated? Furthermore, JLU explores relations between the distribution of natural resource flows, the trade-offs between livelihood and conservation, and communities' food security by comparing results across sites in Angola and Namibia. The social metabolism approach, which combines resource usage in quantity, the sustainability of resource use and the power relations revealed by the usage, will be applied to measure the biomass, food and money flows. JLU will also map property rights and access to resources, and characterize the sites from a historical political ecology perspective. Material flows will be interpreted to identify key HWCs and trade-offs.

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- **Citation Guidelines:** Fuhrmann J., Kadhikwa S., Domptail S.E. (2026) Social Metabolism and Material Flow Analysis: Household Resource Use and Throughput in one Conservancy in the Zambezi, Namibia. Justus Liebig University Giessen.
- **Double publication:** The data is published under the SASSCAL repository (http://data.sasscal.org/metadata/overview.php?global_search) as well as in the JLU repository).
- **Contact Information:** For inquiries, further details, or collaboration requests, please contact: Dr. St phanie Domptail, Justus Liebig University Giessen, Email: Stephanie.domptail@agrar.uni-giessen.de.

- **Variables and description:**

Variable	Description
start	Interview start timestamp.
end	Interview end timestamp.
GPS_Location	0.1 Enter GPS location of the household:
GPS_Manual_Backup	0.2 Enter GPS data manually in this format: S18°15.872' E023°38.206'
HH_ID	0.3 Enter Household ID:
Universities	0.4 University: JLU (Justus Liebig University Giessen, Germany) in cooperation with NUST (Namibia University of Science and Technology). Contacts:
Content_Contacts	0.5 Researcher reads research content and contacts
Data_Use	0.6 Explanation on the use of the data is read
Info_Card_Read	0.7 Was the information card read out aloud?
Consent	0.8 Do you consent to answer the questionnaire and to the use of your data?
Consent_Denied	0.9 If no, why did the participant not consent?
Contact_Results	0.10 Would you like to share your phone number or e-mail address to be invited to the presentation of the results of the research project?
group_tc7dx45	1. Demographic Data
Village_Name	1.1 Name of Village
Family_Status	1.2 What is your status in this family?
Employment_Status	1.3 What is your employment status?
Employment_Other	1.4 If other, please indicate your current status
Conserv_Member	1.5 Are you a conservancy member?
Nationality	1.6 (Silent question) Nationality
Adults_HH_No	1.7 How many adults lived permanently in this household in 2023? Mention only adults that were eating in this household.
Children_HH_No	1.8 How many children lived permanently in this household in 2023?
Ext_Employed_HH_members	1.9 Do you have any household members who work outside of the conservancy?
Ext_Employed_HH_Members_No	1.10 If yes, how many?
Mortality_HHmembers	1.11 How many family members (of those living here with you) have you lost in 2023?
Newborn	1.12 How many newborn babies have you welcomed in 2023?
New_HHmember	1.13 How many people joined the family (those living with you here) in 2023?
group_mx4od36	2. Crop Yields
Fields_No	2.1 How many crop fields do you have?
Field_Size_Ha	2.2 Can you estimate their total size in hectares?
Field_Size_Fo	2.3 Can you estimate their total size in foros?
Location	2.4 On which side of the conservancy are they located?
Fence_Construction	2.5 In 2023, did you build a new fence (or fences)?
Fence_Type	2.6 If yes, which kind of fence(s) did you build?

Fence_Repair	2.7 In 2023, did you repair any of your fields' fences?
Agri_Inputs	2.8 Have you used any of the following agricultural inputs in 2023?
Organic_Fertilizer_Bags	2.9 How many bags of organic fertilizers did you use in 2023? (Indicate number of bags)
Org_Fert_Bag_Size	2.10 What was the size of one bag? (Indicate in kilograms)
Org_Fert_Cost	2.11 How much have you paid for the organic fertilizers that you used in 2023? (Indicate total amount in Namibia Dollars)
Inorganic_Fertilizer_Bags	2.12 How many bags of inorganic fertilizers did you use in 2023? (Indicate number of bags)
Inorg_Fert_Bag_Size	2.13 What was the size of one bag? (Indicate in kilograms)
Inorg_Fert_Cost	2.14 How much money did you pay for the inorganic fertilizers that you used in 2023? (Indicate total amount in Namibia Dollars)
Tractor_Ownership	2.15 If you used a tractor, was it your own or did you rent it?
Tractor_Fuel_Cost	2.16 If you own a tractor, how much money did you pay for fuel in 2023? (Indicate in Namibia Dollars)
Tractor_Repairs_Cost	2.17 If you own a tractor, how much money did you pay for repairs in 2023? (Indicate in Namibia Dollars)
Tractor_Rent_Cost	2.18 How much money did you pay for all the tractors that you rented in 2023? (Indicate in Namibia Dollars)
Improved_Seeds_Bags	2.19 How many bags of improved seeds did you use in 2023? (Indicate number of bags)
Improv_Seeds_Bag_Size	2.20 What was the size of one bag? (Indicate in kilograms)
Improved_Seeds_Cost	2.21 How much have you paid for improved seeds in 2023? (Indicate in Namibia Dollars)
Feeds_Bales	2.22 How many bales of feeds have you used in 2023? (Indicate number of bales)
Feeds_Cost	2.23 How much money did you pay for the feeds you used in 2023? (Indicate in Namibia Dollars)
Salt_Stones_KG	2.24 How much salt stones have you used in 2023? (Indicate in kilograms)
Salt_Stones_Cost	2.25 How much money did you pay for the salt stones you used in 2023? (Indicate in Namibia Dollars)
Oxen_Ownership	2.26 From where did you get the oxen you used in 2023?
Oxen_Cost	2.27 How much money did you pay for the oxen you used in 2023? (Indicate in Namibia Dollars)
Crops_Damage_Ha	2.28 How many hectares of your crop field(s) were destroyed by wildlife in 2023?
Crops_Damage_Fo	2.29 How many foros of your crop field(s) were destroyed by wildlife in 2023?
Compensation	2.30 How much were you compensated for crop loss in 2023? (Indicate in Namibia Dollars)
Compensation_Denied	2.31 If you were not compensated, please tell us why.
Maize_Harvest_Bags	2.32 How many bags of maize did you harvest in 2023? (Indicate in number of bags)

Maize_Bag_KG	2.33 What was the size of one bag? (Indicate in kilograms)
Maize_Ext_Sale_Bags	2.34 How many bags of your maize harvest have you sold outside of the conservancy in 2023? (Indicate in bags)
Maize_Int_Sales_Bags	2.35 How many bags of your maize harvest have you sold within the conservancy in 2023? (Indicate in bags)
Maize_Income	2.36 How much money did you make from selling maize in total in 2023? (Indicate income in Namibia dollars)
Maize_Own_Cons_Bags	2.37 How many bags of your maize harvest did you keep for your own consumption in 2023? (Indicate number of bags)
Millet_Harvest_Bags	2.38 How many bags of millet did you harvest in 2023? (Indicate number of bags)
Millet_Bag_KG	2.39 What was the size of one bag? (Indicate in kilograms)
Millet_Ext_Sales_Bags	2.40 How many bags of millet did you sell outside the conservancy in 2023? (Indicate number of bags)
Millet_Int_Sales_Bags	2.41 How many bags of millet did you sell within the conservancy in 2023? (Indicate number of bags)
Millet_Income	2.42 How much money did you make from selling millet in total in 2023? (Indicate income in Namibia dollars)
Millet_Own_Cons_Bags	2.43 How many bags of your millet harvest did you keep for your own consumption in 2023? (Indicate number of bags)
Sorghum_Harvest_Bags	2.44 How many bags of sorghum did you harvest in 2023? (Indicate number of bags)
Sorghum_Bag_KG	2.45 What was the size of one bag? (Indicate in kilograms)
Sorghum_Ext_Sales_Bags	2.46 How many bags of sorghum did you sell outside the conservancy in 2023? (Indicate number of bags)
Sorghum_Int_Sales_Bags	2.47 How many bags of sorghum did you sell within the conservancy in 2023? (Indicate number of bags)
Sorghum_Income	2.48 How much money did you make from selling sorghum in total in 2023? (Indicate income in Namibia dollars)
Sorghum_Own_Cons_Bags	2.49 How many bags of your sorghum harvest did you keep for your own consumption in 2023? (Indicate number of bags)
Beans_Harvest_Bags	2.50 How many bags of beans did you harvest in 2023? (Indicate number of bags)
Beans_Bag_KG	2.51 What was the size of one bag? (Indicate in kilograms)
Beans_Ext_Sales_Bags	2.52 How many bags of beans did you sell outside the conservancy in 2023? (Indicate number of bags)
Beans_Int_Sales_Bags	2.53 How many bags of beans did you sell within the conservancy in 2023? (Indicate number of bags)
Beans_Income	2.54 How much money did you make from selling beans in total in 2023? (Indicate income in Namibia dollars)

Beans_Own_Cons_Bags	2.55 How many bags of your bean harvest did you keep for your own consumption in 2023? (Indicate number of bags)
Watermelon_Harvest_Pieces	2.56 How many water melons did you harvest in 2023? (Indicate in pieces)
Watermelon_Ext_Sales_Pieces	2.57 How many water melons did you sell outside the conservancy in 2023?
Watermelon_Int_Sales_Pieces	2.58 How many water melons did you sell within the conservancy in 2023?
Watermelon_Income	2.59 How much money did you make from selling water melons in total in 2023? (Indicate income in Namibia dollars)
Pumpkin_Harvest_Pieces	2.60 How many pumpkins did you harvest in the 2023? (Indicate in pieces)
Pumpkin_Ext_Sales_Pieces	2.61 How many pumpkins did you sell outside the conservancy in 2023?
Pumpkin_Int_Sales_Pieces	2.62 How many pumpkins did you sell within the conservancy in 2023?
Pumpkin_Income	2.63 How much money did you make from selling pumpkins in total in 2023? (Indicate income in Namibia dollars)
Groundnut_Harvest_Bags	2.64 How many bags of ground nuts did you harvest in 2023? (Indicate number of bags)
Groundnut_Bag_KG	2.65 What was the size of one bag? (Indicate in kilograms)
Groundnut_Ext_Sales_Bags	2.66 How many bags of ground nuts did you sell outside the conservancy in 2023? (Indicate number of bags)
Groundnut_Int_Sales_Bags	2.67 How many bags of ground nuts did you sell within the conservancy in 2023? (Indicate number of bags)
Groundnut_Income	2.68 How much money did you make from selling ground nuts in total in 2023? (Indicate income in Namibia dollars)
Groundnut_Own_Cons_Bags	2.69 How many bags of your ground nut harvest did you keep for your own consumption in 2023? (Indicate number of bags)
Sweetcane_Harvest_Bundles	2.70 How many bundles of sweet cane did you harvest in 2023? (Indicate number of bundles)
Sweetcane_Ext_Sales_Bundles	2.71 How many bundles of sweet cane did you sell outside the conservancy in 2023? (Indicate number of bundles)
Sweetcane_Int_Sales_Bundles	2.72 How many bundles of sweet cane did you sell within the conservancy in 2023? (Indicate number of bundles)
Sweetcane_Income	2.73 How much money did you make from selling sweet cane in 2023? (Indicate income in Namibia dollars)
Uxhoko_Harvest_Pieces	2.74 How many pieces of uxhoko did you harvest in 2023? (Indicate number of pieces)
Uxhoko_Ext_Sales_Pieces	2.75 How many pieces of uxhoko did you sell outside the conservancy in 2023? (Indicate number of pieces)

Uxhoko_Int_Sales_Pieces	2.76 How many pieces of uxhoko did you sell within the conservancy in 2023? (Indicate number of pieces)
Uxhoko_Income	2.77 How much money did you make from selling uxhoko in 2023? (Indicate income in Namibia dollars)
Muzinzila_Harvest_Bags	2.78 How many bags of Muzinzila did you harvest in 2023? (Indicate number of bags)
Muzinzila_Bag_KG	2.79 What was the size of the bag? (Indicate in kilograms)
Muzinzila_Ext_Sales_Bags	2.80 How many bags of Muzinzila did you sell outside the conservancy in 2023?
Muzinzila_Int_Sales_Bags	2.81 How many bags of Muzinzila did you sell within the conservancy in 2023?
Muzinzila_Income	2.82 How much money did you make from selling Muzinzila in total in 2023? (Indicate income in Namibia dollars)
Mango_Harvest_Pieces	2.83 How many mangos did you harvest in 2023? (Indicate number of pieces)
Mango_Ext_Sales_Pieces	2.84 How many mangos did you sell outside of the conservancy in 2023? (Indicate number of pieces)
Mango_Int_Sales_Pieces	2.85 How many mangos did you sell within the conservancy in 2023? (Indicate number of pieces)
Mango_Income	2.86 How much money did you make from selling mangos in total in 2023? (Indicate income in Namibia dollars)
Pawpaw_Harvest_Pieces	2.87 How many pawpaws did you harvest in 2023? (Indicate number of pieces)
Pawpaw_Ext_Sales_Pieces	2.88 How many pawpaws did you sell outside the conservancy in 2023?
Pawpaw_Int_Sales_Pieces	2.89 How many pawpaws did you sell within the conservancy in 2023?
Pawpaw_Income	2.90 How much money did you make from selling pawpaws in total in 2023? (Indicate income in Namibia dollars)
Banana_Harvest_Pieces	2.91 How many pieces of Banana did you harvest in 2023? (Indicate number of pieces)
Banana_Ext_Sales_Pieces	2.92 How many pieces of Banana did you sell outside the conservancy in 2023?
Banana_Int_Sales_Pieces	2.93 How many pieces of Banana did you sell within the conservancy in 2023?
Banana_Income	2.94 How much money did you make from selling Bananas in total in 2023? (Indicate income in Namibia dollars)
Guava_Harvest_Pieces	2.95 How many pieces of guava did you harvest in 2023? (Indicate number of pieces)
Guava_Ext_Sales_Pieces	2.96 How many pieces of guava did you sell outside the conservancy in 2023?
Guava_Int_Sales_Pieces	2.97 How many pieces of guava did you sell within the conservancy in 2023?
Guava_Income	2.98 How much money did you make from selling guava in total in 2023? (Indicate income in Namibia dollars)

_2_99_How_many_bags_o_t_and_number_of_bags	2.99 How many bags of your harvest (all crops) did you exchange for other goods? (Indicate type of product and number of bags)
_2_100_Was_there_anytimate_amount_in_bags	2.100 Was there anything left on your fields that you did not harvest? (Indicate type of product and estimate amount in bags)
group_of7nm69	3. Livestock Ownership
Cattle_Owned	3.1 How many cattle do you have?
Adult_Cattle_Owned	3.2 How many of them are adult cattle?
Young_Cattle_Owned	3.3 How many of them are young cattle?
Cattle_Killed_Wildlife	3.4 How many of your total cattle got killed by wildlife in 2023?
Cattle_Compensation	3.5 How much money did the conservancy compensate you for killed cattle in 2023? (Indicate in Namibia dollars)
Cattle_Slaughtered	3.6 How many of your cattle did you slaughter in 2023?
Cattle_Slaught_Ext_Sales	3.7 How many of the slaughtered cattle did you sell outside of the conservancy in 2023? (Indicate number of slaughtered animals)
Cattle_Slaught_Int_Sales	3.8 How many of the slaughtered cattle did you sell within the conservancy in 2023? (Indicate number of slaughtered animals)
Beef_Income	3.9 How much money did you make from selling cattle meat (beef) in total in 2023? (Indicate income in Namibia dollars)
Cattle_Own_Cons_001	3.11 Which parts of the slaughtered animals did you keep for home consumption? Estimate amount
Cattle_Live_Ext_Sales	3.12 How many live cattle did you sell outside the conservancy in 2023? (Indicate number of living animals)
Cattle_Live_Int_Sales	3.13 How many live cattle did you sell within the conservancy in 2023? (Indicate number of living animals)
Cattle_Live_Income	3.14 How much money did you make from selling live cattle in total in 2023? (Indicate income in Namibia dollars)
Cattle_Natural_Death	3.15 How many of your cattle died a natural death in 2023? (were not slaughtered, were not attacked by wildlife)
Milk_Collection_Months	3.16 In which months did you collect milk in 2023?
Milk_Daily_Litres	3.17 How much milk did you collect per day in 2023? (Estimate average number of litres)
Milk_Ext_Sales_Litres	3.18 How many litres of milk did you sell outside of the conservancy per month? (Estimate in litres)
Milk_Int_Sales_Litres	3.19 How many litres of milk did you sell within the conservancy per month? (Estimate in litres)
Milk_Income	3.20 How much money did you make from selling milk per month? (Indicate income in Namibia dollars)
Goats_Owned	3.21 How many goats do you have?
Adult_Goats_Owned	3.22 How many of them are adult goats?

Young_Goats_Owned	3.23 How many of them are young goats?
Goats_Slaughtered	3.24 How many goats did you slaughter in 2023?
Goat_Slaught_Ext_Sales	3.25 How many of the slaughtered goats did you sell outside of the conservancy in 2023? (Indicate number of slaughtered animals)
Goat_Slaught_Int_Sales	3.26 How many of the slaughtered goats did you sell within the conservancy in 2023? (Indicate number of slaughtered animals)
Goat_Meat_Income	3.27 How much money did you make from selling goat meat in total in 2023? (Indicate income in Namibia dollars)
Goat_Own_Cons	3.28 How many of your slaughtered goats did you keep for your own consumption in 2023? (Indicate number of slaughtered animals)
Goats_Live_Ext_Sales	3.29 How many live goats did you sell outside the conservancy in 2023? (Indicate number of living animals)
Goats_Live_Int_Sales	3.30 How many live goats did you sell within the conservancy in 2023? (Indicate number of living animals)
Goat_Live_Income	3.31 How much money did you make from selling live goats in total in 2023? (Indicate income in Namibia dollars)
Goat_Natural_Death	3.32 How many of your goats died a natural death in 2023? (were not slaughtered, were not attacked by wildlife)
Goat_Milk_Collect	3.33 Did you collect any goat milk in 2023?
Goat_Milk_Collect_Days	3.34 On how many days did you collect goat milk in 2023?
Goat_Milk_Daily_Litres	3.35 How much goat milk did you collect per day in 2023? (Estimate average number of litres)
Goat_Milk_Sales_Litres	3.36 How many litres of goat milk have you sold in 2023? (Estimate total number of litres)
Goat_Milk_Income	3.37 How much money did you make from selling goat milk in 2023? (Indicate income in Namibia dollars)
Donkey_Owned	3.38 How many donkeys do you have?
Adult_Donkey_Owned	3.39 How many of them are adult donkeys?
Young_Donkey_Owned	3.40 How many of them are young donkeys?
Donkey_Live_Ext_Sales	3.41 How many live donkeys did you sell outside the conservancy in 2023? (Indicate number of living animals)
Donkey_Live_Int_Sales	3.42 How many live donkeys did you sell within the conservancy in 2023? (Indicate number of living animals)
Donkey_Live_Income	3.43 How much money did you make from selling live donkeys in total in 2023? (Indicate income in Namibia dollars)
Sheep_Owned	3.44 How many sheep do you have?
Adult_Sheep_Owned	3.45 How many of them are adult sheep?
Young_Sheep_Owned	3.46 How many of them are young sheep?
Sheep_Slaughtered	3.47 How many sheep did you slaughter in 2023?

Sheep_Slaught_Ext_Sales	3.48 How many of the slaughtered sheep did you sell outside of the conservancy in 2023? (Indicate number of slaughtered animals)
Sheep_Slaught_Int_Sales	3.49 How many of the slaughtered sheep did you sell within the conservancy in 2023? (Indicate number of slaughtered animals)
Sheep_Meat_Income	3.50 How much money did you make from selling sheep meat in total in 2023? (Indicate income in Namibia dollars)
Sheep_Own_Cons	3.51 How many of your slaughtered sheep did you keep for your own consumption in 2023? (Indicate number of slaughtered animals)
Sheep_Live_Ext_Sales	3.52 How many live sheep did you sell outside the conservancy in 2023? (Indicate number of living animals)
Sheep_Live_Int_Sales	3.53 How many live sheep did you sell within the conservancy in 2023? (Indicate number of living animals)
Sheep_Live_Income	3.54 How much money did you make from selling live sheep in total in 2023? (Indicate income in Namibia dollars)
Pig_Owned	3.55 How many pigs do you have?
Small_Pig_Owned	3.56 How many small pigs do you have?
Big_Pig_Owned	3.57 How many big pigs do you have?
Pig_Slaughtered	3.58 How many pigs did you slaughter in 2023?
Pig_Slaught_Ext_Sales	3.59 How many of the slaughtered pigs did you sell outside of the conservancy in 2023? (Indicate number of slaughtered animals)
Pig_Slaught_Int_Sales	3.60 How many of the slaughtered pigs did you sell within the conservancy in 2023? (Indicate number of slaughtered animals)
Pork_Income	3.61 How much money did you make from selling pig meat (pork) in 2023? (Indicate income in Namibia dollars)
Pig_Own_Cons	3.62 How many of your slaughtered pigs did you keep for your own consumption in 2023? (Indicate number of slaughtered animals)
Pig_Live_Ext_Sales	3.63 How many live pigs did you sell outside the conservancy in 2023? (Indicate number of living animals)
Pig_Live_Int_Sales	3.64 How many live pigs did you sell within the conservancy in 2023? (Indicate number of living animals)
Pig_Live_Income	3.65 How much money did you make from selling live pigs in 2023? (Indicate income in Namibia dollars)
Chicken_Owned	3.66 How many chicken do you have?
Chicken_Slaughtered	3.67 How many chicken have you slaughtered in 2023?
Chicken_Slaught_Ext_Sales	3.68 How many of the slaughtered chicken did you sell outside of the conservancy in 2023? (Indicate number of slaughtered animals)

Chicken_Slaught_Int_Sales	3.69 How many of the slaughtered chicken did you sell within the conservancy in 2023? (Indicate number of slaughtered animals)
Chicken_Meat_Income	3.70 How much money did you make from selling chicken meat in total in 2023? (Indicate income in Namibia dollars)
Chicken_Own_Cons	3.71 How many of your slaughtered chicken did you keep for your own consumption in 2023? (Indicate number of slaughtered animals)
Chicken_Live_Ext_Sales	3.72 How many live chicken did you sell outside the conservancy in 2023? (Indicate number of living animals)
Chicken_Live_Int_Sales	3.73 How many live chicken did you sell within the conservancy in 2023? (Indicate number of living animals)
Chicken_Live_Income	3.74 How much money did you make from selling live chicken in total in 2023? (Indicate income in Namibia dollars)
Hens	3.75 How many hens do you have that laid eggs in 2023?
group_yr2ri03	4. Resources from the Veld (Environment)
Poles_Harvest_Pieces	4.1 How many poles did you harvest in 2023? (Indicate in pieces / number of poles)
Poles_Ext_Sales_Pieces	4.2 How many poles did you sell outside of the conservancy in 2023? (Indicate in pieces / number of poles)
Poles_Int_Sales_Pieces	4.3 How many poles did you sell within the conservancy in 2023? (Indicate in pieces / number of poles)
Poles_Income	4.4 How much money did you make from selling poles in total in 2023? (Indicate income in Namibia dollars)
Reeds_Harvest_Bundles	4.5 How many bundles of reeds did you harvest in 2023? (Indicate number of bundles)
Reeds_Ext_Sales_Bundles	4.6 How many bundles of reeds did you sell outside of the conservancy in 2023? (Indicate number of bundles)
Reeds_Int_Sales_Bundles	4.7 How many bundles of reeds did you sell within the conservancy in 2023? (Indicate number of bundles)
Reeds_Income	4.8 How much money did you make from selling reeds bundles in total in 2023? (Indicate total income in Namibia dollars)
Grass_Harvest_Bundles	4.9 How many bundles of thatch grass did you harvest in 2023?
Grass_Ext_Sales_Bundles	4.10 How many bundles of thatch grass did you sell outside of the conservancy in 2023?
Grass_Int_Sales_Bundles	4.11 How many bundles of thatch grass did you sell within the conservancy in 2023?
Grass_Income	4.12 How much money did you make from selling thatch grass in 2023? (Indicate total income in Namibia dollars)

_4_13_How_many_bundle_you_harvest_in_2023	4.13 How many bundles of palm leaves did you harvest in 2023?
Firewood_Sledge	4.14 How do you collect firewood?
Firewood_Weekly_Bundles	4.15 How much firewood did you collect in one week? (Estimate average amount of bundles. One bundle means what one person can carry)
Firewood_Weekly_Sledge	4.16 How much firewood did you collect in one week? (Indicate number of times you fill your sledge in one week)
Sledge_Size	4.17 What is the size of your sledge?
Firewood_Ext_Sales_Bundles	4.18 How many small bundles (10 NAD) of firewood did you sell outside of the conservancy in 2023?
Firewood_Int_Sales_Bundles	4.19 How many small bundles (10 NAD) of firewood did you sell within the conservancy in 2023?
Firewood_Income	4.20 How much money did you make from selling firewood in 2023? (Indicate total income in Namibia dollars)
Electricity_Cost_Monthly	4.21 How much money did you spend on electricity per month? (Estimate monthly average in 2023 in Namibia dollars)
Devils_Claw_Harvest_KG	4.22 How much devil's claw did you harvest in 2023? (Indicate in kilograms)
Fish_Monthly_Coolerbox	4.23 How much fish did you collect from the river per month? (Indicate average number of cooler boxes)
Fish_Ext_Sales_Monthly_Coolerb	4.24 How much fish did you sell outside the conservancy per month? (Indicate number of cooler boxes)
Fish_Int_Sales_Monthly_Coolerb	4.25 How much fish did you sell within the conservancy per month? (Indicate number of cooler boxes)
Fish_Income	4.26 How much money did you make from selling fish in total in 2023? (Indicate income in Namibia dollars)
Fish_Own_Cons_Monthly_Coolerbo	4.27 How much fish did you keep for your own consumption per month? (Indicate number of cooler boxes)
Waterlily_Harvest_Bowls	4.28 How many maserenge (bowls) of water lilies did you harvest in 2023? (Indicate number of bowls / maserenge)
Waterlily_Ext_Sales_Bowls	4.29 How many maserenge (bowls) of water lilies did you sell outside the conservancy in 2023? (Indicate number of bowls / maserenge)
Waterlily_Int_Sales_Bowls	4.30 How many maserenge (bowls) of water lilies did you sell within the conservancy in 2023? (Indicate number of bowls / maserenge)
Waterlily_Income	4.31 How much money did you make from selling water lilies in total in 2023? (Indicate income in Namibia dollars)
Fruits_Berries_Bags	4.32 How many plastic bags of veld fruits and berries have you collected from trees and bushes in 2023? (Indicate number of plastic bags)
Fruit_Berries_Bag_KG	4.33 Please name the size of the bag per fruit. (Estimate in kilograms per bag)

Handicraft	4.34 Did you or your family make any handicraft items in 2023?
Handicraft_Types	4.35 If yes, list all the types of handicraft items you or your family produced in 2023.
Handicraft_Ext_Sales_Items	4.36 How many handicraft items did you sell outside of the conservancy in 2023? (Indicate number of items)
Handicraft_Int_Sales_Items	4.37 How many handicraft items did you sell within the conservancy in 2023? (Indicate number of items)
Handicraft_Income	4.38 How much money did you make from selling handicraft items in 2023? (Indicate total income in Namibia dollars)
Handicraft_Own_Cons_Items	4.39 How many handicraft items did you keep for your own use in 2023? (Indicate number of items)
Other_Veld_Harvest	4.40 Have you harvested other resources from the veld in 2023?
Other_Veld_Harvest_Types	4.41 Which and how many of those other resources have you harvested in 2023? (Indicate name and amount collected per resource)
Other_Veld_Harvest_Ext_Sales	4.42 How many of those other resources have you sold outside of the conservancy in 2023? (Indicate name and amount sold per resource)
Other_Veld_Harvest_Int_Sales	4.43 How many of those other resources have you sold within the conservancy in 2023? (Indicate name and amount sold per resource)
Other_Veld_Harvest_Income	4.44 How much money did you make from selling other resources in total in 2023? (Indicate name and income in Namibia dollars per resource)
_4_45_Did_you_exchang_and_amount_exchanged	4.45 Did you exchange any goods you harvested from the veld for other goods in 2023? (Indicate type of goods and amount exchanged)
Transport_Used	4.46 Which kind of transport did you use to bring harvested resources to your home in 2023?
Transport_Other	4.47 If other, which form of transport did you use?
Fuel_Monthly_Litres	4.48 If you used your own car, how much fuel did you use per month in 2023? (Estimate amount in Liters)
Oth_Car_Payment_Form	4.49 If you used other people's car, did you pay in money or did you pay in kind?
Oth_Car_Cost	4.50 If you paid in cash, how much did you pay in 2023? (Indicate total amount in Namibian Dollars)
Oth_Sledge_Payment_Form	4.51 If you used other people's sledge, did you pay in money or did you pay in kind?
Oth_Sledge_Cost	4.52 If you paid in cash, how much did you pay in 2023? (Indicate total amount in Namibian Dollars)
Oth_Bike_Payment_Form	4.53 If you used other people's bicycle, did you pay in money or did you pay in kind?
Oth_Bike_Cost	4.54 If you paid in cash, how much did you pay in 2023? (Indicate total amount in Namibian Dollars)
group_cy7qf95	5. Conservancy Ties
Conservancy_Employed	5.1 Are you working for the conservancy?
Conservancy_Position	5.2 If yes, what is your position?

Conservancy_Last_Employment	5.3 Have you worked for the conservancy before?
Conservancy_Last_Position	5.4 If yes: What was your last position?
Conservancy_Last_Position_Year	5.5 When did you hold that position? (Indicate duration from the year it started to the year it ended)
CMC_Relationship	5.6 How are you related to members of the conservancy management committee (CMC)?
CEC_Relationship	5.7 How are you related to members of the executive committee (CEC)? (manager, book keeper, secretary, enterprise officer, field officer)
Conservancy_Employed_Relative	5.8 Do you have a relative employed by the conservancy?
Con_Employed_Relative_Position	5.9 If yes, what position do they hold?
Tourism_Employed_HHmember	5.10 Do you have a household (courtyard) member working in the lodge / tourism camp in the conservancy?
Tourism_Position_HHmember	5.11 If yes: What is their position?
Hunting_Employed_HHmember	5.12 Do you have a household member working in the hunting camp in the conservancy?
Hunting_HHmember_Position	5.13 If yes, what is their position?
Con_Sales	5.14 Have you sold anything to the conservancy in 2023?
Cons_Sales_Not	5.15 If no, why not?
Con_Sales_Type	5.16 If yes, which goods did you sell?
Con_Sales_Income	5.17 How much money did you make from selling products to the conservancy in 2023? (Indicate the total income per product in Namibia Dollars)
Con_Services	5.18 Have you offered any kind of paid services to the conservancy in 2023?
Con_Services_Type	5.19 If yes, what kind of service did you offer in 2023?
Con_Services_Income	5.20 If yes, how much money did you get for your services in 2023? (Indicate total income in Namibia dollars)
Tourism_Supply	5.21 Have you supplied any goods to the lodge / tourism camp in the conservancy in 2023?
Tourism_Supply_Type	5.22 If yes, what kind of goods did you supply in 2023?
Tourism_Supply_Amount	5.23 What was the amount of goods that you supplied to the lodge / tourism camp in 2023? (Indicate product name and amount)
Tourism_Income	5.24 How much money did you make from selling to lodge / tourism camp in 2023? (Indicate income in Namibia dollars)
Hunting_Supply	5.25 Have you supplied any goods to the hunting camp in the conservancy in 2023?
Hunting_Supply_Type	5.26 If yes, what kind of goods did you supply to the hunting camp in 2023?
Hunting_Supply_Amount	5.27 What was the amount of goods that you supplied to the hunting camp in 2023? (Indicate product name and amount)
Hunting_Income	5.28 How much money did you make from selling to the hunting camp in 2023? (Indicate income in Namibia dollars)

huts	This part of the data was not part of the survey but was collected afterwards with help of the HH_ID
huts_type	Hut type owned
huts_type/S_trad_hut	Ownership of traditional huts of small size. (0/1)
huts_type/M_trad_hut	Ownership of traditional huts of medium size. (0/1)
huts_type/L_trad_hut	Ownership of traditional huts of large size. (0/1)
huts_type/kitchen_hut	Ownership of kitchen hut. (0/1)
huts_type/S_cement_trad_hut	Ownership of small cement hut with traditional roof. (0/1)
huts_type/S_cement_zinc_hut	Ownership of small cement hut with zinc roof. (0/1)
huts_type/M_cement_trad_roof	Ownership of medium cement hut with traditional roof. (0/1)
huts_type/M_cement_zinc_roof	Ownership of medium cement hut with zinc roof. (0/1)
huts_type/L_cement_trad_roof	Ownership of large cement hut with traditional roof. (0/1)
huts_type/L_cement_zinc_roof	Ownership of large cement hut with zinc roof. (0/1)
huts_type/S_brick_tradroof	Ownership of small brick house with traditional roof. (0/1)
huts_type/S_brick_zincroof	Ownership of small brick house with zinc roof. (0/1)
huts_type/M_brick_tradroof	Ownership of medium brick house with traditional roof. (0/1)

huts_type/M_brick_zincroof	Ownership of medium brick house with zinc roof. (0/1)
huts_type/L_brick_tradroof	Ownership of large brick house with traditional roof. (0/1)
huts_type/L_brick_zincroof	Ownership of large brick house with zinc roof. (0/1)
small_trad_hut	Number of traditional huts of small size.
medium_trad_hut	Number of traditional huts of medium size.
large_trad_hut	Number of traditional huts of large size.
kitchen_hut	Number of kitchen huts
small_cement_trad_hut	Number of small cement huts with traditional roof.
small_cement_zinc_hut	Number of small cement huts with zinc roof.
medium_cement_trad_hut	Number of medium cement huts with traditional roof.
medium_cement_zinc_hut	Number of medium cement huts with zinc roof.
large_cement_trad_hut	Number of large cement huts with traditional roof.
large_cement_zinc_hut	Number of large cement huts with zinc roof.
small_brick_tradroof	Number of small brick house with traditional roof.
small_brick_zincroof	Number of small brick huts with zinc roof.
medium_brick_tradroof	Number of medium brick huts with traditional roof.
medium_brick_zincroof	Number of medium brick huts with zinc roof.
large_brick_tradroof	Number of large brick huts with traditional roof.
large_brick_zincroof	Number of small brick huts with zinc roof.

fencing_type	Fence type used
fencing_type/no_fence	No fence used (0/1)
fencing_type/reeds_fence	Reed fence used (0/1)
fencing_type/wood_and_wire_fence	Wood and wire fence used. (0/1)
fencing_type/brick_wall	Brick wall used. (0/1)
fencing_type/other	Other fencing type used (0/1)
courtyard_size	Size of the courtyard
courtyard_size/no_fence	No courtyard (0/1)
courtyard_size/small_courtyard	Homestead courtyard marked as small (0/1).
courtyard_size/medium_courtyard	Homestead courtyard marked as medium (0/1).
courtyard_size/large_courtyard	Homestead courtyard marked as large (0/1).
other_fencing_type	Types of other kind of fencing