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DEVELOPMENT AID FROM PEOPLE TO PEOPLE

DAPP Namibia : Association Not for Gain, 21/90/045 & Welfare Organisation WO.85

Tel. 061 258220 / E-mail: dappnamibia@iway.na

DAPP NAMIBIA

REPORT OF THE ASSESSMENT AND CONSULTATIONS IN THE REGIONS OF KAVANGO EAST & KAVANGO WEST

February 2020



Figure 1: Namibia

Consultation Report for the development of the ADSWAC project to be submitted to the Adaptation Fund

Compiled & completed by:

Gunther Roeber, Partnership Officer at Development Aid from People to People (DAPP) Namibia

Constituencies:

Kavango East: Mukwe, Ndiyona, Ndonga Linea, Mashare, Rundu rural (5)

Kavango West: Kapako, Musese, Tondoro, Nkurenokuru (4)

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PART I: Stakeholder Consultations' Summary

Project: "Adaptation to Drought in South-Western African Communities" (ADSWAC)

Purpose:

- Scoping and familiarisation with area, projects, development and stakeholders;
- Briefing on proposed ADSWAC project;
- Consultations and discussions with stakeholders;

Process during consultations meetings:

- Personal introduction & overview of portfolios – both parties;
- Briefing and information sharing of proposed project;
- Discussion, questions, clarity, concerns, expectations, etc.;

Meetings conducted:

- As per list (spreadsheet) attached in PART III;

Groupings of stakeholders

- Regional Government:
 - 2 Governors and 3 Regional Councillors consulted
 - *Local regional governments are represented by respective governors & constituency councils represented by councillors;*
 - *Office of president → Regional Governor → Constituency Councillors;*
- Ministry representatives and related departments:
 - 5 government ministry representatives consulted
 - *Ministries of: Health and Social Services; Environment and Tourism; Agriculture Water and Forestry; Education, Youth Sport and National Service;*
- Traditional Authorities:
 - 1 chief and 1 senior headmen consulted
 - *In Kavango: 5 chiefs, 5 senior headmen and a number of village-based headmen reporting to senior headmen;*
 - *Chief (Hompa) → Senior Headmen → village-based headmen;*
- Community agents /drivers:
 - 2 NEEN affiliated teachers & 2 NYS representatives consulted
 - *Teachers are driving environmental education clubs at schools within the NEEN project and National Youth Service supports of organised youth groups;*
- Farming communities and instructors:
 - 5 Farmer Club instructors (DAPP) and about 12 groups affiliated to community gardens consulted during informal meetings

- *20 Farmer Clubs have been established by DAPP in the Kavango region, of which some are temporarily dormant*

General findings and recommendations:

Drought and climate change: Delayed onset of rainy season observed and experienced; in the 'past' rain started in October and planting commenced; these days rains only starts in December often followed by prolonged dry periods detrimental to crop production and leading to crop losses. Wet season suitable for growth of dryland crops becomes shorter. Also, more drought years with poor to none harvests are recorded.

Women in agriculture: Historically, man left (the region) for employment in the 'developed and industrialised parts' (=mines, fishery and commercial agriculture) of the country to earn money supporting families at home. Women remained in village and took over responsibilities of field cultivation and attending to families (the young and very old). Various developments in past years (high unemployment in population increase) lead to increase of number of men and youth at village level – who have not yet regained their rightful position in agriculture (as mentioned: women work and men spend the day socialising)

Youth integration in agriculture: the number of youth (age 18-35) gradually increases in local communities without most being productively accommodated. Unemployment prevails nationally leading to youth settling at home villages without either finding employment (qualified or not) or becoming self-employed, with the latter being a challenge in a cash strapped local economy. Most stakeholders suggest to support initiatives involving youth in agricultural production, as this is in principle the only industry which can be built on locally available resources. Equally, the accommodation of youth in productive activities is of both national and political importance, and much emphasised by both political office bearers and traditional authorities. Another concern raised is that the older and traditionally committed and hard-working generation is gradually replaced by the younger generation, who seems not to be too well prepared for the task of food production at local level.

Development of the agricultural sector with irrigated crop production as a focal point: The main natural resources required for agricultural production, namely soil and water, are abundant and underutilised in the area. Required are the transfer of water from the river (or underground) to suitable soils enabling production, supported by the required infrastructure, equipment and production inputs with emphasis on seeds. Equally important is the development of the human capacity (skills and knowledge) in this sector. Produce should primarily serve to enhance local food security and to make a positive impact on the local economy by means of surplus production and value addition.

Dormant projects: in the past years many agricultural 'projects' have been initiated by government and development organisations. The implementation period appeared promising but sustainability was lacking. This can be ascribed to the premature withdrawal of support by the implementing agency and by the creation of dependency (mainly in terms of inputs). Resultantly, there are various so-called projects with the potential to be revived, especially as basic infrastructure is in place, and in many cases the required experience. The existence of dormant projects was especially a concern raised by traditional authorities.

Hampering factors of agricultural development and production: The repeated and past prolonged drought was not experienced as the main concern for stagnating and lacking development in the sector, especially as it is regarded as a natural phenomenon to be dealt with. The main constraints in this regard mentioned

is an enabling environment for production, the required knowledge and skills of potential agronomist and the attitude of communities with regard to hard work leading to surplus production. With regard to the enabling requirement its was referred to water supply to fertile soils especially along the river and the availability of farming equipment and inputs (which can be partly achieved by access to capital). Skills and knowledge transfer should be facilitated by vocational training providers (government and donor funded) on both short terms and long-term basis. In addition, strong links should be created in this regard with both existing and to be developed regional vocational training providers.

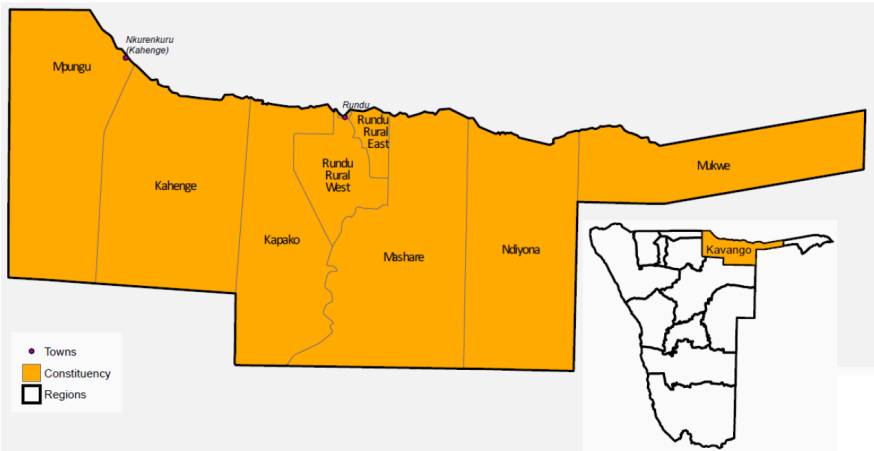
Land allocation by traditional authorities: Representatives of traditional authorities clearly stated that they are in charge of land allocation to community members within clearly stipulated regulations. They also attend to and solve all land related disputes in the region. Land in the rural area cannot be owned and is primarily allocated for food production purposes; failing to do so allows traditional authorities to transfer (certain) agricultural land to others with the convincing intention to improve and to produce food. Traditional leaders met assured the provision of small tracts of land to the project subject to commitment to sustainable contribution to development and food production.

Environmental education at school level: Various initiatives are undertaken to integrate environmental education at school levels, both through the inclusion in the curriculum as well as by initiating extra mural activities in form of environmental education clubs (EECs). The Ministry of Environment and Tourism is the main driving force supported by the Ministry of Education. Teachers volunteering with the implementation of this component are key to success. It is, although, reported that the availability of financial resources, as little as they might be, is hampering success and achievement as little to no contributions can be expected from a resource poor community. The focal point of environmental education is natural resources conservation, a clean and hygienic environment and the impact of climate change (present and future).

Health, nutrition and the economy: Climate change, community dynamics and lacking effective support structures currently have a negative impact on rural communities reflected by gradually diminishing and increasingly varying local food production. This puts strain on both the local (cash) economy and nutrition-related health status of communities. Most vulnerable are very young children (especially breastfeeding) and those on chronic medication (TB and ARV). Another issue mentioned is the toilet-based hygiene factor, posing a challenge at village and especially at school level; there seems to be an urgent need for the development and construction of suitable ablution facilities in specific areas.

Note: Additional information on the regions (Kavango East and Kavango West) was compiled and admitted below the consultations' summaries.

PART II: Documentation and Data on Kavango East and West Regions in Namibia

1.	General information in Kavango region (East and West) constituencies																				
1.1	Constituency population (% of total – Kavango/Namibia) Kavango is divided into six tribal authorities (Kwangali, Shambyu, Mbunza, Gciriku, Mbukushu and Kxoe) and nine constituencies, each represented by a Regional Councillor. The boundaries of the constituencies and tribal representatives differ in many areas. Source: Kavango region – a digest of information on key aspects (2006) Census Regional Profile – Kavango 2011 (National Statistics Agency) Total Population <table> <tr> <td>Kavango</td><td>223 352</td></tr> <tr> <td>Kahenge</td><td>29 799</td></tr> <tr> <td>Kapako</td><td>26 983</td></tr> <tr> <td>Mashare</td><td>15 688</td></tr> <tr> <td>Mpungu</td><td>20 787</td></tr> <tr> <td>Mukwe</td><td>27 690</td></tr> <tr> <td>Ndiyona</td><td>20 633</td></tr> <tr> <td>Rundu Rural West</td><td>20 953</td></tr> <tr> <td>Rundu Urban</td><td>22 538</td></tr> <tr> <td>Rundu Rural East</td><td>38 281</td></tr> </table> CONSTITUENCIES AND SELECTED TOWNS IN KAVANGO REGION 	Kavango	223 352	Kahenge	29 799	Kapako	26 983	Mashare	15 688	Mpungu	20 787	Mukwe	27 690	Ndiyona	20 633	Rundu Rural West	20 953	Rundu Urban	22 538	Rundu Rural East	38 281
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1.2	Ethnic groups																				

"Today the Kavango people consist of five individual tribes, namely the Kwangali, Mbunza, Shambyu, Gciriku and Mbukushu, each inhabiting an area of its own along the southern bank.

The languages spoken by these tribes, Rushambyu and Rugciriku, are very similar. The Mbukushu, who speak Thimbukushu and live in the eastern part of Kavango, differ socially and ethnologically from the other four tribes."

<http://www.travelnewsnamibia.com/uncategorized/people-kavango-zambezi/>

"Rukavango-speaking people constitute by far the largest language group in Kavango (79.4% of the population), and San constitute just 0.4% of the region's population (NSA 2013: 171)."

https://www.lac.org.na/projects/lead/Pdf/scraping_two_chap9.pdf

1.3

Economic activity of the population (main & supportive – off-village level income)

Rural and village based:

- Sale of surplus crop production (grain and vegetable)
- Sale of livestock (cattle, goats and chicken) – usually only if in need for cash
- Sale of natural/indigenous products (firewood and wild harvested products – for local demand and processing (and export) by established industries (referred to wild harvesting of marula, wild 'orange', nuts and seeds, roots (ex devils claw), mushrooms (truffle) = indigenous
- Sale of fish sourced from river
- Crafts and artefacts (wood carvings, clay pots, etc) – for local use and tourism
- Services – field cultivation with animal drawn implements & transport (water) with animal drawn carts and sledges
- Support to and opportunities from tourism industries (limited)
- Sale of meat (from under a tree at strategic venue) – own cattle or buy-slaughter-sell
- Micro retail outlets (groceries and beverages)

Commercial agriculture:

- Large scale irrigation schemes (referred to as Green Schemes) – not too successful at present
- A few privately owned commercial agric enterprises – often in a PPP framework (note: land is not owned but allocated based on long term lease agreements)
- Commercial livestock farming: privately managed livestock farms (mainly cattle) based inland (restraining factor – currently no viable market for cattle in the region)

'informal services'

- Transport – commuting (formal and 'opportunistic = hitch hikers)
- Transport – commodities (grain and supplies)
- Field cultivation services (by privately owned tractors)

Other:

- At urban level: urban 'industries' as in found in all major towns in Namibia – private (formal and informal) and corporate driven – a critical employment creator
- At commercial service level: construction, maintenance, supply etc. mainly based on government tenders allocated and by parastatal (ex road maintenance)
- Tourism industry: numerous upmarket lodges along the Kavango river – mainly accommodation and leisure with limited economic impact on community except 'levies' payable to traditional

	authorities. (levies primarily used for social and development purposes and managed by Traditional Authorities) - At industry level: no large-scale industries (no mining, etc) - Self-employment: various – mainly on subsistence level – micro enterprise (although there are a few advanced SMEs) – also craft production (wood carving and clay pots – tourism market) <u>Employment:</u> - Government: main employer with jobs in urban and rural setting - Formal: corporate sector – mainly urban based - Tourism sector: few specialised jobs – often held by people from other regions - NGO sector: few specialised jobs supported by local resource people formally employed - Informal sector: various opportunities – usually casual labour (including Angolans (without work permit) – as sale persons (informal sector), livestock herders and casual labour for dryland cropping (weeding and harvesting – although limited as most work done by family members) <i>Source: Gunther – observation</i>
1.4	Livelihood (agriculture, trade, fishing? Etc?) = rural livelihoods As under 1.3 and: - Subsistence farming – village and family based with occasional surplus production (mainly dryland cropping and livestock, with horticulture gradually gaining relevance) - Natural resources harvesting (wild harvesting of indigenous products) – for own use and sale (fishing, firewood, thatch grass, indigenous products (marula, devil claw, nuts and beans) - Harvesting and sale of thatch grass – sold to companies building upmarket thatch roofed structures in developed areas – mainly private homes and tourism establishments - Contribution from income earned by family members formally employed (sending money to family members as required and often ‘project’ specific (ex for field cultivation) - Pension for the older (from 60yrs onwards N\$1,200.00 per month state pension) - Social grants (vulnerable, disabled, orphans) - Sale of livestock – usually only if in need of cash (whereas livestock constitutes traditional wealth and is only sacrificed under special circumstances) <i>Source: Gunther – observation</i>
1.5	Power Supply / source of energy (cooking, school, pump water, solar) - Firewood for cooking (rural) most common – even if electricity available - Electricity sourced from home based solar systems – usually limited to charging mobile phones, radios, TV, lights - Some (a few) villages connected to national power grid – prepaid electricity applies. Limited means of payments limits optimal use of this source of energy - Rural institutions (schools, clinics, regional offices and some ‘shops’) connected to power grid - Use of charcoal not common <i>Source: Gunther – observation</i>
1.6	Water Supply (borehole, wells, river, pipeline,) River (Kavango river)

	– as a constant source of water (supplying communities at a distance of 10km (stated)) • Source of water at household level (drinking, cooking & hygiene) and livestock • Source for irrigated agriculture (only possible if infrastructure required to pump sufficient water from river to point of use (gardens)) • Water consumed unrefined/untreated (note: pollution and contamination of water not a serious concern at this stage – but might be so in future) Boreholes and wells – inland – at a distance from the river (recharge from river if close to river -to be clarified) – a constant source of water (provided water pumps are maintained and fuel for pumps is available) • main water points – primarily for ‘institutions’ such as gov. offices, schools, clinics etc. • free access to communities (sometimes fee structure applies) • some village based waterpoints (borehole and pump) managed by local waterpoint committees (installation was done by government) • distribution pipelines often supply adjacent water points (water reservoirs) • most pumps driven by combustion engines – solar systems introduced but have limitations (ref quantity of water, depth of boreholes and costs) • limited (to none) water distribution system at broad village level General: • Households carry water from source to homes (usually in 20ltr cans or smaller buckets) up to 1km?? – donkeys and carts used as well especially if distances are far (too far to carry) • Usually there are no water taps at household level (no water distribution network) • Some boreholes inland provide brackish water – often not suitable for human consumption and irrigation • Livestock gets access to drinking water at river and inland water points (herded to water point on daily basis) • Water points (borehole based) are managed by community-based water point committees unless it remains the responsibility of government (for government institutions) – communities are assigned the responsibility of maintenance and fuel supply (various success rates as reported) Source: Gunther – observation
1.7	Existence of Community health agents (ref 3.1) • Main custodian: Ministry of Health and Social Services (MoHSS)– established rural clinics at first point of contact – closely linked to hospitals • Supportive facilities at Catholic Mission stations – have basic health facilities (7 mission stations in the Kavango region) Resource people: • Staff of health facilities act as community health agents – supported by: ➤ Project HOPE (US funded) ➤ DAPP TCE (total control of epidemic) • Main focal areas: HIV/AIDS, Malaria, Tuberculosis – and supportive activities such as nutrition, hygiene, social behaviour and control of mosquitoes Source: Gunther – observation
1.8	Opinions on the proposed “Adaptation Fund” actions (ADSWAC)

Note: all stakeholders (listed below) consulted positively acknowledged and welcomed the proposed project and offered to support and cooperate. It was clearly mentioned that they all need to stay informed on proposed developments and progress, and that consent and approval is in principle required. Concerns on the sustainability, youth involvement and active participation (in decision making) was consistently mentioned. Using available key natural resources, namely water and soil, is regarded as the backbone of the only potential regional industry to be based on subsistence, small scale and commercial agric production – including dryland cropping, irrigated horticulture and cropping as well as commercially orientated livestock farming. The need for human capacity building as equally addressed.

Government Ministries – as potential partners with project implementation

- Have national programmes in place but various challenges with implementation are experienced (usually funding and resource people).
- Support with implementation welcomed but project should be aligned to national objectives and existing frameworks. Strategic integration of interventions suggested and requested

Regional Government (Constituency councils)

- Office of President ↔ Governor ↔ Constituency Councillor ↔ Community (Note: one governor per region and one Councillor per constituency)
- Responsible for coordination of various interventions and projects at constituency level (thus at community level)
- Closely cooperating with government ministries – especially on project implementation
- Need to stay informed and give approval/consent (together with traditional authorities if land is involved)
- To serve as partners, advisors and facilitators (want to be part of the process & involved)
- Can call and facilitate community meetings & address conflict and challenges
- (somehow a political agenda vs people's agenda of traditional authorities)

Traditional authorities (TA):

- Chief (Homba) ↔ Senior Headmen ↔ Headmen and village level (all have a team of advisors)
- Main responsibility: land allocation and land related disputes (they are the only custodian of land and allocation - and in this regard their authority is 'above' Government)
- Allocation of land for distinct purposes – and can cancel if not living up to expectations
- TAs granted support for land allocation for small scale community gardens (½ ha)
- Want to see active involvement of the youth, especially the jobless residents of communities

Communities (at village level)

- Welcome opportunities contributing and enabling a better life (such as food security and income generation)
- Committed to cooperate
- Challenged by active involvement of men and youth (as agric (crop) is mainly elderly women based)

Community and youth representative groups

- Support with facilitating community (village) meetings and organise groups
- Guide with selection for suitable group members
- Engage with traditional authorities and regional government (constituencies) for lobbying and support
- Note: change of attitude is required – a critical component to be integrated in proposal

Environmental 'agents'

- Government (Ministry of Environment and Tourism, Dept of Forestry (under Ministry of Agriculture Water and Forestry), NGO's (Namibia Nature Foundation, IRDNC (Integrated Rural

	Development and Nature Conservation) Zambezi Region and Kavango-Zambezi Transfrontier Conservation Area (KAZA) and OKACOM. (note: not all were part of consultations) • Objective: promote conservation of natural resources (biotic and abiotic) and various environmental concerns (such as climate change and natural resources deterioration/depletion) • focal area: nature conservation, clean environment, tree planting, subsistence agriculture, water use and conservation, and the impact of and adaptation to climate change • Responsible ministry: Min Environment and Tourism initiated programmes implemented in partnership with Ministry of Education (Environmental Education Clubs within the National Environmental Education Network) – related to schools and youth • Other MET coordinated projected: Communal Conservancies and Community Forests (=joint natural resources conservation and management for shared sustainable benefit) • Close cooperation with Namibian government ministries and joint programmes (usually funded by international donor community) • All ‘environmental agents’ perceived proposal positively and are committed to partners on common and shared components with the project Source: Gunther – observation
1.9	Private activities in the constituencies: • Small scale (micro) enterprises: shops, crafts (wood carvings and clay pots), services (field cultivation and transport), sale of agric produce (road side and markets), sale of meat (slaughtered cattle in informal market -roadside) • SME: corporate sector business ventures (consumer goods), construction and service industry, tourism industry, commercial agric production, state owned enterprises (SOE) and various joint ventures and PPP • Large scale industries: none in the region <u>Note:</u> most private (entrepreneurial) activities are urban based except agriculture and tourism
1.10	Government projects in portfolio (such as) <i>Health, education, agriculture, vocational training, job creation, training =</i> For community benefit and local development: • Green schemes (large scale irrigated agriculture (Green Schemes) • Agricultural marketing chain starting point (for marketing of agric produce) – AMTA (Agricultural Marketing and Trade Agency) • Meatco (slaughter beef cattle on commercial basis – not yet operational) • Fish farming (apparently only one operational) • Farmer support - field cultivation services & supply of farming inputs (seeds) • Water supply and distribution (for irrigation, household and livestock) • Road network maintenance (currently no new developments) • Communication network maintenance and expansion (Telecom, MTC) • Rural electricity supply Source: Gunther – observation
Add ed	NGO projects in area (NGO and core activities) • Communal Land Developemnt programme (GIZ) • Conservation Agriculture (NNF) • Community health related programmes (Project Hope & DAPP)

	• Various donor funded projects in partnership with Government (funding organisations: EU, Environmental Investment Fund, Green Climate Fund etc.) • Private initiatives (example lodges and commercial agric producers) supporting communities project specific on a small/micro scale Note: no detailed survey (assessment) on existing NGO interventions (past and present) undertaken. Source: Gunther – observation
1.11	Most vulnerable areas <i>= most vulnerable to climate change (extreme weather patterns – prolonged droughts, floods, etc)</i> • Dryland cropping: due to irregular rainfall / prolonged dry spells, drought, periodically delayed onset of rainy season, extreme high temperatures • Woodlands/forests: wild fires usually by accidental cause (no effective systems and equipment in place to controls and contain • Grazing areas: gradual deterioration observed that can be ascribed to overgrazing and overstocking (related to absent management systems and increasing herd sizes) as well as changing rainfall patterns hampering regeneration and sufficient fodder production • Irrigated agriculture: prone to unreliable water supply which is mainly due to technical & human nature (maintenance and repair of water supply infrastructure) (Note: brackish water not suitable for agriculture and human consumption) in selected areas poses another challenge) • Human wildlife conflict especially along wildlife corridors (reference is made to elephants; whereas hippos and crocodiles pose a less significant challenge) • Areas prone to natural plaques (birds, insects and pests) – not mentioned as a significant threat <u>Note:</u> Flood plains prone to seasonal flooding not mentioned as a vulnerable ‘area’ as people traditional manage these areas on a seasonal basis Source: Gunther – observation
1.12	Most vulnerable communities (vulnerable to climate change) and impact • San communities east of the Kavango river (limited access to water & by nature not agriculturalists) • Farming communities in the inland (far south of the river)– especially those have limited and locally restricted access to water. Existence depends solely on dryland cropping and livestock production – highly vulnerable to droughts • Communities in areas with brackish underground water • Communities short of the active component (youth) of the local population (I.e. where mainly the old and the very young are residing) Also: • Child-headed households • Pensioner (old people) headed households • (with above being directly related to the HIV/AIDS pandemic and migration of the ‘able bodied’ workforce (men and women) to urban area – in hope of jobs and a better life) Source: Gunther – observation

1.13	Some actions in relation to climate change? • Everybody aware of the term ‘climate change’ – but appropriate and contextual interpretation questionable – and reaction thereto not readily observable • Various awareness campaigns at government, traditional authority, community and school level • Some programmes and projects implemented at government and NGO level – mainly focussing on awareness, adaptation and building resilience • It might appear that communities are either slow to adapt or ignorant of the fact and expected implications – or that they are ‘paralysed’ by a dependency (on government and NGO) syndrome • Some initiatives – initiated by government ➤ Awareness campaigns ➤ Food bank / grain storage ➤ Seed bank / seed production and storage (note: traditionally farmers keep their own seed stock for the next season, but if no harvest of seed stock becomes exhausted) – as was the case beginning of this planting season ➤ Multiplication of suitable crop cultivars (short cycle varieties) ➤ Diversification – such as irrigated crop production ➤ Improved dryland cropping methods (conservation agriculture = CA) ➤ Developing marketing channels for field crops and vegetables (AMTA) ➤ Developing marketing channels for cattle (appears to be stagnated at the moment) Source: Gunther – observation
1.14	Climate change forecast (e.g. More rain, drought, pests, etc.) • Climate change forecasts available at international levels • Regular seasonal prospects and forecasts shared by Namibia’s Metrological Services http://www.meteona.com/ • It appears that such information is not channelled through to farming communities – and ‘translated’ within their reference framework (i.e. to understand and base strategic decisions thereon) • Traditional approach to varying rainfall patterns still seems dominating (plant after first rain – and replant with next rains if intermediate period prevent survival of first plants ...) Source: Gunther – observation
1.15	Some collaboration with neighbouring countries - water management, agricultural production system, trade, etc. • Law enforcement (wildlife crime, illegal trade, fugitives, cross border movement, livestock movement across river, etc.) • Kavango-Zambezi Transfrontier Conservation Area (KAZA): focal area is joint wildlife management • OKACOM: focal area: joint river water management • Others: ➤ Trade ➤ Bridges (movement of people and goods) ➤ Electricity supply (by Namibia to towns bordering Namibia) ➤ Exchange of seed and propagation material (informal – community level) Source: Gunther – observation
1.16	Is the water table level stable?

	River: - Seasonal variation – dependent on rainfall events in catchment area - Secured water supply – variability increases (height of water level in river) - Sufficient water throughout the year for communities Inland – boreholes and wells: - No information available at this stage (not relevant as inland areas not targeted with project proposal) - As per oral communication by developers of inland water points, Source: Gunther – observation
1.17	Some income generating activity that can be done.(= Opportunities) - Irrigated agriculture for high-value crop production (vegetable, cutting flowers, , etc) - Cultivation of plants with health and medicinal properties (ex Moringa, Arthemisia) - Irrigated agriculture – field crops and fodder - Livestock feedlots – especially for finishing slaughter cattle - Organised livestock trade & meat processing (local vs ‘national’ import from South Veterinary Cordon Fence (S-VCF) - Community involvement in mainstream tourism (eco-tourism and cultural tourism) - Timber – local value addition vs export of raw material (logs) - Support services to agric production – inputs and marketing (incl value addition aligned to existing and potential markets) – also maintenance and repair for infrastructure, equipment and machinery - Natural agric input supply (Cattle manure, compost, natural pest control remedies, seeds, etc.) - Livestock herd and flock management services –improved production with a commercial focus - Improvement of craft industry (Note: most quality crafts sold in Namibia are from Zimbabwe) - Wild harvesting and local processing (natural resource use – indigenous fruit) <u>Note:</u> income generating activities should focus on sources of income from outside the region – to enhance the local economy
1.18	Community organization and political participation - YES – community (whole community or leaders of community) calling meetings of or being called to meetings by: ➤ Traditional authorities ➤ Regional governments (Governor or constituency councillors) - Other community groupings of relevance: ➤ Parents committees of schools ➤ Political, religious, environmental or any other focal groups ➤ Project and programme related groups (often initiated by human development agents)
1.19	Another type of community involvement? Yes: ➤ Health and hygiene programmes – various – including HIV/AIDS support groups ➤ Coordination of emergency events (example drought aid distributions) ➤ Protected area management (Conservancies and Community Forests)

	➤ Water point management committees (mainly inland) ➤ Cattle herd vaccination campaigns and movement (restriction in case of disease outbreak) ➤ Land allocations – in control of Traditional Authorities ➤ Community projects – community assigned to identify beneficiaries etc. ➤ Etc.
1.20	Existence of churches, youth associations, others? <i>(target, objectives and impact?)</i> Churches: • Churches established at most villages – mainly Christian denominations • Missionary stations – church, schools, hospitals, clinics, – mostly catholic (7 in Kavango) Youth and community associations: • Various at school level; of relevance – Environmental Education Clubs (ref NEEN/MET) • National Youth Services affiliated youth groups (at regional level) • Farmer Clubs and Farmer Field Schools (including youth as well – integrated or separate) • Agriculture: • Farmer Association and Farmer Co-operatives linked to the Namibia National Farmers Union • Marketing associations (relevant for wild harvesting and thatch grass) <u>Note:</u> it seems quite popular to establish associations but a challenge to keep them active in order to achieve objectives
1.21	Other stakeholders? Other than Government Ministries, Regional Government, and NGO's • International bodies with focal area Climate Change • Conservationists and Environmentalists at international level (as above) • Tourism industry • Markets for selected products – especially in the high-end user groups (health, nutrition and cosmetics) • Suppliers of technologies etc recognising a market in developing regions • International community with commercial or other strategic interest in Namibia – and the region (the presence of the Chinese component in the rural area is observed)
1.22	Interventions that the constituencies would like to see implemented? (within the framework of proposal) <u>Government Ministries and Regional Governments:</u> ➤ Active involvement of the youth (gradually taking over from the aging generation) ➤ Capacitating the youth in hands-on agricultural practices – based on traditional practices and knowledge as well as new technologies ➤ Change of attitude of the community of large (focus: youth) – ref value systems and approach towards hard work as a prerequisite for possible achievement ➤ Reviving of dormant agricultural projects (at various levels) ➤ Establishing agriculture as a flourishing regional industry (the breadbasket of Namibia) ➤ A balance between subsistence, small scale and large-scale food production entities ➤ Sustainability at all levels – including the initiation of 'new projects'

	➤ A nation competent to deal with the impact of climate change themselves with none to limited dependency on government = resilience ➤ A flourishing local economy attracting its youth (at rural level) and providing them with a ‘local quality life’ – this requires attitude and entrepreneurship (it’s about prospects in live based on agriculture and its multipliers) <u>Traditional authorities:</u> ➤ No conflict on land issues (as custodian of land) ➤ Optimal and sustainable utilisation of all land allocated for agric purposes ➤ Commitment to objectives as stated with the application for the use of land ➤ Revival of all dormant land, especially land allocated to projects which are dormant (large small scale projects) ➤ All new project to be viable and sustainable – and ongoing after withdrawal of initiator (NGO) – and not creating a dependency syndrome (but rather capacitate to help themselves) ➤ Active involvement of the youth and the jobless in activities – on a personal reward basis (not necessarily material – can be intangible as well) – must feel worthwhile ➤ Opportunities for human capacity building that is locally relevant – preferable on a regional basis																																																																																																																																																																																							
2.	Education																																																																																																																																																																																							
	<i>* Refer to Namibia Fifteenth School Day Report 2017</i>																																																																																																																																																																																							
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2.3	No. of students per level																																																																																																																																																																																							
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	TABLE 1: Number of learners, teachers and schools by region and sex in 2017 <table><tr><th rowspan="2">REGION</th><th colspan="3">LEARNERS</th><th colspan="3">TEACHERS</th><th>SCHOOLS</th><th rowspan="2">Learners as % of National Total</th><th rowspan="2">Teachers as % of National Total</th><th rowspan="2">Schools as % of National Total</th></tr><tr><th>Female</th><th>Male</th><th>Total</th><th>Female</th><th>Male</th><th>Total</th><th>Schools</th></tr><tr><td>//Kharas</td><td>11341</td><td>10852</td><td>22193</td><td>659</td><td>282</td><td>941</td><td>53</td><td>3%</td><td>3%</td><td>3%</td></tr><tr><td>Erongo</td><td>21606</td><td>20568</td><td>42174</td><td>1231</td><td>369</td><td>1600</td><td>72</td><td>6%</td><td>5%</td><td>4%</td></tr><tr><td>Hardap</td><td>12223</td><td>12169</td><td>24392</td><td>637</td><td>347</td><td>984</td><td>59</td><td>3%</td><td>3%</td><td>3%</td></tr><tr><td>Kavango East</td><td>30251</td><td>30618</td><td>60869</td><td>957</td><td>939</td><td>1896</td><td>165</td><td>8%</td><td>7%</td><td>9%</td></tr><tr><td>Kavango West</td><td>20251</td><td>21163</td><td>41414</td><td>694</td><td>770</td><td>1464</td><td>176</td><td>6%</td><td>5%</td><td>10%</td></tr><tr><td>Khomas</td><td>45181</td><td>42303</td><td>87484</td><td>2828</td><td>874</td><td>3702</td><td>120</td><td>12%</td><td>13%</td><td>7%</td></tr><tr><td>Kunene</td><td>14257</td><td>14869</td><td>29126</td><td>604</td><td>454</td><td>1058</td><td>67</td><td>4%</td><td>4%</td><td>4%</td></tr><tr><td>Ohangwena</td><td>51042</td><td>51521</td><td>102563</td><td>2588</td><td>1394</td><td>3982</td><td>262</td><td>14%</td><td>14%</td><td>14%</td></tr><tr><td>Omaheke</td><td>11211</td><td>11255</td><td>22466</td><td>563</td><td>321</td><td>884</td><td>44</td><td>3%</td><td>3%</td><td>2%</td></tr><tr><td>Omusati</td><td>46955</td><td>47717</td><td>94672</td><td>2759</td><td>1368</td><td>4127</td><td>282</td><td>13%</td><td>14%</td><td>15%</td></tr><tr><td>Oshana</td><td>27115</td><td>26339</td><td>53454</td><td>1610</td><td>667</td><td>2277</td><td>137</td><td>7%</td><td>8%</td><td>7%</td></tr><tr><td>Oshikoto</td><td>34120</td><td>34867</td><td>68987</td><td>1930</td><td>1009</td><td>2939</td><td>220</td><td>9%</td><td>10%</td><td>12%</td></tr><tr><td>Otjozondjupa</td><td>23590</td><td>22840</td><td>46430</td><td>1154</td><td>511</td><td>1665</td><td>78</td><td>6%</td><td>6%</td><td>4%</td></tr><tr><td>Zambezi</td><td>18481</td><td>18931</td><td>37412</td><td>975</td><td>673</td><td>1648</td><td>111</td><td>5%</td><td>6%</td><td>6%</td></tr><tr><td>Total</td><td>367624</td><td>366012</td><td>733636</td><td>19189</td><td>9978</td><td>29167</td><td>1846</td><td></td><td></td><td></td></tr></table>	REGION	LEARNERS			TEACHERS			SCHOOLS	Learners as % of National Total	Teachers as % of National Total	Schools as % of National Total	Female	Male	Total	Female	Male	Total	Schools	//Kharas	11341	10852	22193	659	282	941	53	3%	3%	3%	Erongo	21606	20568	42174	1231	369	1600	72	6%	5%	4%	Hardap	12223	12169	24392	637	347	984	59	3%	3%	3%	Kavango East	30251	30618	60869	957	939	1896	165	8%	7%	9%	Kavango West	20251	21163	41414	694	770	1464	176	6%	5%	10%	Khomas	45181	42303	87484	2828	874	3702	120	12%	13%	7%	Kunene	14257	14869	29126	604	454	1058	67	4%	4%	4%	Ohangwena	51042	51521	102563	2588	1394	3982	262	14%	14%	14%	Omaheke	11211	11255	22466	563	321	884	44	3%	3%	2%	Omusati	46955	47717	94672	2759	1368	4127	282	13%	14%	15%	Oshana	27115	26339	53454	1610	667	2277	137	7%	8%	7%	Oshikoto	34120	34867	68987	1930	1009	2939	220	9%	10%	12%	Otjozondjupa	23590	22840	46430	1154	511	1665	78	6%	6%	4%	Zambezi	18481	18931	37412	975	673	1648	111	5%	6%	6%	Total	367624	366012	733636	19189	9978	29167	1846			
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Omaheke	11211	11255	22466	563	321	884	44	3%	3%	2%																																																																																																																																																																														
Omusati	46955	47717	94672	2759	1368	4127	282	13%	14%	15%																																																																																																																																																																														
Oshana	27115	26339	53454	1610	667	2277	137	7%	8%	7%																																																																																																																																																																														
Oshikoto	34120	34867	68987	1930	1009	2939	220	9%	10%	12%																																																																																																																																																																														
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	Table 1 shows the number of female and male learners and teachers and the number of schools by region in Namibia in 2017. There is near parity in the number of school-going girls and boys, with a slightly higher number of girls, and there are nearly twice as many female teachers compared to male teachers. Ohangwena Region has the highest number of learners in 2017, while Omusati has the highest numbers of schools and teachers.																																																																																																																																																																																							

TABLE 2: Number of learners by region, grade and sex in 2017

REGION	Gender	Pre-primary	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Special	Other	TOTAL
//Kharas	Male	817	1180	1154	984	1098	1039	942	750	918	747	672	283	240	28	0	10852
	Female	802	1191	1152	1017	1059	1033	923	812	1021	871	748	348	342	22	0	11341
	Total	1619	2371	2306	2001	2157	2072	1865	1562	1939	1618	1420	631	582	50	0	22193
Erongo	Male	945	2489	2118	2100	2097	1756	1735	1456	1626	1478	1388	692	584	103	1	20568
	Female	926	2338	2213	2031	2151	1840	1826	1546	1754	1650	1558	927	792	53	1	21606
	Total	1871	4827	4331	4131	4248	3596	3561	3002	3380	3128	2946	1619	1376	156	2	42174
Hardap	Male	801	1384	1175	1184	1335	1121	1080	935	988	787	726	230	231	153	39	12169
	Female	819	1268	1177	1171	1246	1113	1102	1026	1058	812	735	305	297	80	14	12223
	Total	1620	2652	2352	2355	2581	2234	2182	1961	2046	1599	1461	535	528	233	53	24392
Kavango East	Male	1453	4095	3579	3259	3366	2718	2270	1932	2560	2129	1392	924	860	56	25	30618
	Female	1423	3794	3338	3154	3189	2783	2410	2036	2569	2228	1547	876	836	51	17	30251
	Total	2876	7889	6917	6413	6555	5501	4680	3968	5129	4357	2939	1800	1696	107	42	60869
Kavango West	Male	1320	3405	2682	2388	2414	1907	1571	1244	1540	1295	680	348	321	48	0	21163
	Female	1311	3005	2409	2292	2209	1841	1736	1274	1537	1340	739	310	233	15	0	20251
	Total	2631	6410	5091	4680	4623	3748	3307	2518	3077	2635	1419	658	554	63	0	41414
Khomas	Male	2518	4337	4328	4190	4064	3633	3530	3221	3343	3136	2640	1554	1434	190	185	42303
	Female	2688	4447	4271	4199	4120	3844	3632	3481	3635	3449	3181	2057	1990	187	0	45181
	Total	5206	8784	8599	8389	8184	7477	7162	6702	6978	6585	5821	3611	3424	377	185	87484
Kunene	Male	933	2179	1919	1643	1829	1244	1180	992	1173	854	494	285	136	8	0	14869
	Female	988	2047	1797	1624	1607	1309	1141	970	1057	859	499	196	158	5	0	14257
	Total	1921	4226	3716	3267	3436	2553	2321	1962	2230	1713	993	481	294	13	0	29126
Ohangwena	Male	2443	6058	5254	4955	5671	5006	4336	3669	4358	4031	2991	1505	1244	0	0	51521
	Female	2645	5519	4767	4699	5066	4722	4294	3719	4525	4359	3465	1862	1400	0	0	51042
	Total	5088	11577	10021	9654	10737	9728	8630	7388	8883	8390	6456	3367	2644	0	0	102563
Omaheke	Male	625	1445	1330	1162	1303	1201	902	700	1002	723	492	217	131	22	0	11255
	Female	625	1312	1199	1175	1249	1122	1020	766	1097	691	574	211	166	4	0	11211
	Total	1250	2757	2529	2337	2552	2323	1922	1466	2099	1414	1066	428	297	26	0	22466
Omusati	Male	2314	5858	4891	4509	4944	4370	3978	3414	4129	3648	2461	1581	1620	0	0	47717
	Female	2496	5228	4472	4190	4384	4140	3813	3375	4164	3822	3048	1956	1867	0	0	46955
	Total	4810	11086	9363	8699	9328	8510	7791	6789	8293	7470	5509	3537	3487	0	0	94672
Oshana	Male	1548	2732	2417	2278	2439	2200	2205	1915	2474	2114	1627	1261	1129	0	0	26339
	Female	1547	2566	2340	2327	2323	2116	2140	1986	2510	2352	1862	1488	1558	0	0	27115
	Total	3095	5298	4757	4605	4762	4316	4345	3901	4984	4466	3489	2749	2687	0	0	53454
Oshikoto	Male	2117	3867	3522	3267	3885	3204	3062	2334	2925	2637	1609	1259	1179	0	0	34867
	Female	2170	3434	3148	3038	3300	2856	2865	2340	3108	3004	1892	1578	1387	0	0	34120
	Total	4287	7301	6670	6305	7185	6060	5927	4674	6033	5641	3501	2837	2566	0	0	68987
Otjozondjupa	Male	1276	3005	2545	2384	2611	2105	1906	1574	1978	1449	995	466	408	121	17	22840
	Female	1317	2771	2585	2363	2564	2158	1981	1765	2058	1674	1165	546	564	71	8	23590
	Total	2593	5776	5130	4747	5175	4263	3887	3339	4036	3123	2160	1012	972	192	25	46430
Zambezi	Male	1395	2145	1851	1702	1688	1492	1416	1270	1560	1668	1255	818	664	7	0	18931
	Female	1345	1989	1654	1618	1636	1531	1433	1225	1530	1647	1409	769	693	2	0	18481
	Total	2740	4134	3505	3320	3324	3023	2849	2495	3090	3315	2664	1587	1357	9	0	37412
National	Male	20505	44179	38765	36005	38744	32996	30113	25406	30574	26696	19422	11423	10181	736	267	366012
	Female	21102	40909	36522	34898	36103	32408	30316	26321	31623	28758	22422	13429	12283	490	40	367624
	Total	41607	85088	75287	70903	74847	65404	60429	51727	62197	55454	41844	24852	22464	1226	307	733636

TABLE 3: Number of learners, teachers and schools by region, from 2015 to 2017

REGION	LEARNERS			TEACHERS			SCHOOLS		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
//Kharas	21501	22085	22193	893	922	941	50	52	53
Erongo	37869	40204	42174	1459	1512	1600	65	66	72
Hardap	23885	24110	24392	949	917	984	57	57	59
Kavango East	55069	58387	60869	1729	1840	1896	156	162	165
Kavango West	38388	38835	41414	1265	1354	1464	176	172	176
Khomas	81928	83119	87484	3396	3372	3702	106	104	120
Kunene	26892	28163	29126	1068	1078	1058	67	68	67
Ohangwena	98028	99156	102563	3703	3853	3982	253	256	262
Omaheke	21457	22111	22466	796	833	884	42	43	44
Omusati	89803	91231	94672	3812	3914	4127	276	276	282
Oshana	52285	52524	53454	2274	2290	2277	137	135	137
Oshikoto	65527	67544	68987	2670	2816	2939	212	219	220
Otjozondjupa	43113	44542	46430	1482	1607	1665	75	77	78
Zambezi	34873	35867	37412	1546	1578	1648	107	109	111
NATIONAL	690618	707878	733636	27042	27886	29167	1779	1796	1846

From the figures presented in Table 3, we can observe a continued trend of increase in the numbers of learners (by 3.6%), teachers (by 4.6%) and schools (by 2.8%) from 2016 to 2017.

2.5 Distance children to school

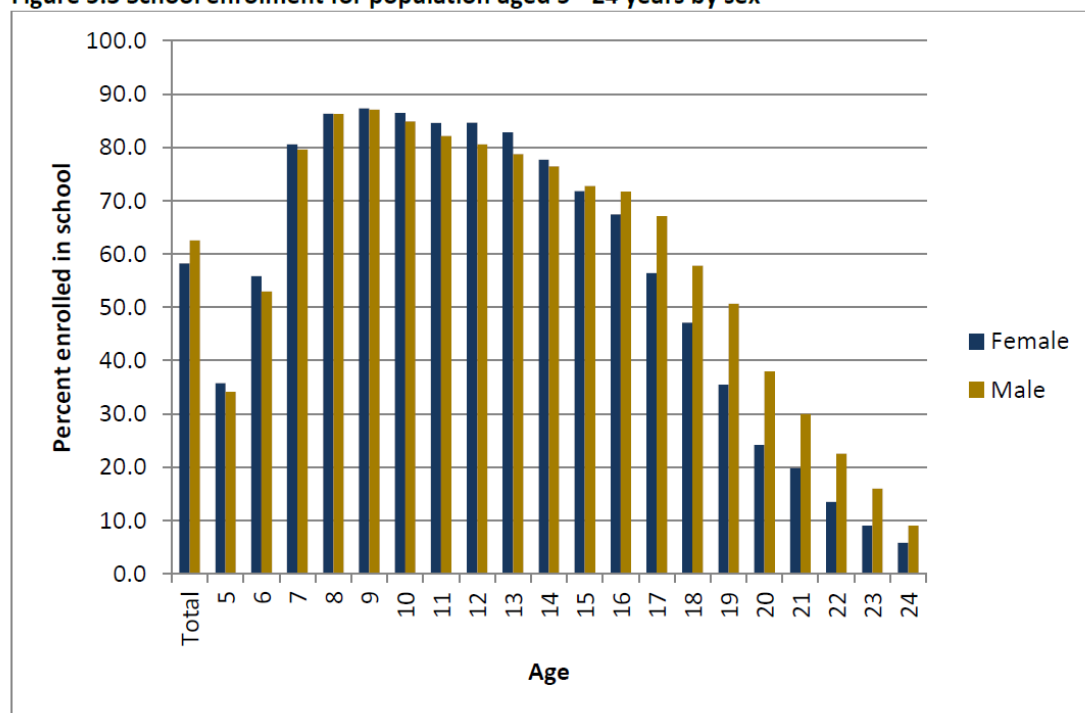
- No detailed information available – indicated that they walk in extreme cases to schools 10km away from home – it can be assumed that the average is about 5km (distance to school)
- Some schools have hostels (boarding school) – children staying far away from schools are accommodated (as reported)
- Note: no detailed and reliable information available

2.6 No. of school children outside the school system. Why?

Table 5.5 Distribution of the population aged 15 years and above who left school by highest level of educational attainment and sex

Educational Attainment	Population aged 15 years and above			Percent		
	Total	Female	Male	Total	Female	Male
Total	86 945	46 509	40 436	100.0	100.0	100.0
No Formal education	1 529	913	616	1.8	2.0	1.5
Incomplete Primary	30 227	16 938	13 289	34.8	36.4	32.9
Primary education	41 977	22 813	19 164	48.3	49.1	47.4
Secondary education	10 580	4707	5 873	12.2	10.1	14.5
Tertiary education	2 621	1 131	1 490	3.0	2.4	3.7
Others	11	7	4	0.0	0.0	0.0

Figure 5.3 School enrolment for population aged 5 - 24 years by sex



Census Regional Profile – Kavango 2011 (National Statistics Agency)

2.7

Existence of school meals

- Not applicable – only applies to learners residing in hostels (boarding school)

3.

Health

Note: detailed information and data is available and can be sourced

3.1

Clinics or posts (ref 1.7)

Kavango East and West Regional Health Directorate has the following facilities

- Hospitals = 1
- Health Centers = 2
- Primary Health Care Clinics = 26

In addition:

- 1 private hospital in Rundu
- Numerous private medical practitioners based in Rundu
- *Service primarily used by people benefitting from private medical aid schemes (and gov med aid schemes)*

3.2

Number of doctors

- Info not available

3.3	No. of nurses • Info not available
3.4	Most common diseases • Malaria, TB and HIV/AIDS
3.5	Institutional / home births • Mainly controlled/observed births at health facilities – while homebirths are still taking place at small scale (as reported). No detailed information available
3.6	HIV situation? • Community at large is sensitised – seems becoming under ‘reasonable control’ – resulting from many years of targeted interventions
3.7	Malaria Situation? • Seasonal – but remains a challenge (close cooperation with Angola (close to river) is required and needs to be maintained
3.8	Tuberculosis situation? • Mostly co-infection with HIV/AIDS
3.9	Sanitation – situation • Lack of water sanitation and ablution facilities – a major challenge in densely populated areas and areas with temporary concentration of people (meetings, gathering and community activities) – same applies to schools
3.10	Nutrition situation • A challenge in both rural and urban areas (apparently more in the urban areas) • Malnutrition amongst babies and young children critical in certain areas • Availability of food with medication intake another challenge to some communities and individuals (TB and ARVs)
4.	Agriculture / Livestock / Aquaculture / Beekeeping / Dryland cropping / horticulture
4.1	In the region, each rural household can be defined as a ‘farmer’: • Engaged in dryland cropping • Some irrigated crop production (horticulture) if water is available • Keeps some livestock with occasional sales (if in need of cash) – cattle, goats and chicken In addition: • A number of individuals engaging in farming activities on commercial basis • Some medium to large scale farming operation – owned by individuals or ‘groups = investors, partners, company) – operation based on employed resource people • = job creator

	No detailed figures available
4.2	Existing 'farmers' associations: - Farmers' association and cooperatives affiliated to the Namibia National Farmers Union (NNFU) - Farmer Clubs (following the concept of farmer field schools) affiliated to NNF/DAPP - Farmer groupings affiliated to Green Scheme irrigation farms - Individual farmers sharing resources but produce independently (no details available) - It is equally reported on some other joint ventures currently established Detailed information not available at this stage – but can be sourced
4.3	Farmer Field Schools There are (and have been) various farmer capacity building activities and interventions organised by various role players in agric development. These are usually short-term interventions (such as information days and demonstrations) targeting only a selected segment of the agric community. For example, these include: - Mentoring and coaching (long term but reaching only a few progressive farmers) - Field days organised by MAWF/Directorate of Extension and Engineering Services (DAPEES) - Promotional educational activities by suppliers or agricultural inputs - NGO project specific human capacity interventions - Formal and informal information sharing at community levels (such as within Farmer Clubs) - Commercial training events – high fees apply - Occasional exposure tours – most to neighbouring countries (Zambia, Zimbabwe)
4.4	Type of agriculture <u>Traditional:</u> - Dryland cropping (pearl millet, sorghum, maize and beans) - Vegetable production in dry season if water is available for this purpose (Tomato, onion, green pepper and spinach) - Cattle and goats – traditional wealth and status, sales only if in need of cash - Pigs and chicken more sporadic (require external fodder resources for optimal production) – Note: this excludes traditional chicken 'farming' <u>Commercial:</u> - Large scale irrigation schemes along river (referred to as Green Schemes) – mainly for commercial grain production (infrastructure set up but various challenges with maintained profitable production – thus partly dormant or not optimally productive) - Emerging horticulture production units – mainly small to medium scale – it is reported on various rates of success – from high to low. These units are mainly initiated and driven by local people - Satellite privately managed production units (from small to large) - usually successful with good rates of returns – this can be greatly ascribed to substantial private investments based on detailed feasibility studies, as well as business and production plans (for example: potato, blue berry for export (newly established). These units are mainly drive by agriculturalists from other regions who realise the local production potential. - Feedlots for finishing cattle for slaughter market – no longer operational due to 'collapse' of local market for cattle (various reasons)

	Development of commercial livestock farms in the inland – partly successful (this is part of a government programme aiming at development of the livestock sector in the region).
4.5	Crops to be grown: <u>Dryland:</u> - Millet, sorghum, maize and beans – traditional - Improved cultivars and production methods together with the use of fertiliser (organic and conventional) in nutrient-poor sandy soils can substantially improve yields – but at small and large scale - Potentially, other crops can be piloted – expert suggestion are required in this matter <u>Irrigated cropping:</u> - Higher (traditionally dry land) crops yields due to denser plant population and reliable water supply/moisture content - High yield crops requiring more water than average rainfall (various crops) – some even for export (example black carrots for European market) - Traditional winter crops can be grown (example wheat, etc) - Fodder production to supply feedlots – and alternatively, drought feeds (at national level) <u>Horticulture:</u> - Unlimited potential in consideration of climate, soils, plaques and markets (demand) - As the region is greatly frost free, it holds the advantage of producing frost sensitive crops in winter (which a in demand and benefit from off-season premiums) - Soils suitable for large scale potato and sweet potato production – it is reported (and already produced by some farmers) <u>With regard to crop production the following needs to be considered:</u> - Land tenure - Self-sufficiency vs commercial surplus production (small and large scale) - Access to capital (required to start-up) and affordability - Affordability and availability of production inputs (low input production delivers low returns!) - Access to water for irrigation and limitations (natural, financial and technical) - Knowledge and skills - Attitude and motivations (the human drivers) - Entrepreneurship mindset - Viable markets
4.5	Constraints <i>with regard to crop production</i> <i>(CC, wildlife, pests, water supply, soil (degradation), weeds, labour (migration to rural, HIV, youth, men) ploughing services, access to land (traditional and institutional)</i> - Rainfall patterns and quantities (late onset of rainy season, prolonged dry spells, limited quantities, extreme variations from year to year) make dryland crop production a risky and unreliable production practice - Water for irrigation sourced from river and underground: ➤ Limited and potentially regulated access (will become more important with increasing number of irrigation projects)

	➤ Cost of water supply (initial investment, running costs (fuel or electricity), maintenance, repair and replacement) ➤ Secured supply during critical production periods (discontinuation of water for a short period can destroy harvest) – usually of technical nature ➤ Quality of water: not always suitable for crop production (example brackish water) • Human wildlife conflict: free roaming elephants pose a challenge in certain areas – this is especially related to so-called wildlife corridors along natural migration routes • Weed control: poses a challenge especially if manual weeding is required while local resource people (family members) are either not available or not willing to do so and/or if casual labour is not available or not affordable (too expensive or no cash available) • Availability, affordability and timing of field cultivation services (ploughing services): Note – this service is rendered by MAWF and private service providers at a fee which is not affordable by many small-scale farmers. Furthermore, does the limited number of tractors do not allow to serve all farmers in a timely manner. Only a few farmers manage to prepare their fields using animal draft power – and offer these services to other farmers. • Occasional pests (such as insects, army worm, locust and birds) can destroy crops without farmers having the means to protect their crops
4.6	Irrigation systems: <u>At micro scale/subsistence level:</u> • Common are flood irrigation – by water pipe, hose pipe and water can (manual activity) – which is not a water efficient approach • The introduction of water smart technologies (microjets and drippers) would improve efficient water use – and require less water for same production. Technology might be costly (install, maintain and repair) and requires appropriate expertise and an effective back-up service <u>At small scale level:</u> • Based on observation, there are numerous irrigation systems installed (in open and in green houses) – refining technologies might increase water efficiency • The introduction of aquaculture is another option (currently promoted in Namibia, but not yet observed in region) – viability is questionable in local setup <u>At large scale (commercial) level:</u> • Numerus pivots established being fed by river water (direct and indirect) (=Green Schemes) • Some appear fully operational while others are dormant
Added	Wild harvesting of indigenous fruit Refers to veld fruit (fruit, berries, nuts, roots and leaves – based on traditional practices) • Own use – consumption at household level – a traditional practice • Informal marketing - roadside and markets – to urban population with a traditional connection • Formal marketing – established enterprises focussing on high-end export market source raw products locally – for processing, value addition and export (private entrepreneurs and NGO's involved) (example, Africrops http://africrops.de/en/namibia-2/ , Nambib Desert Jojoba https://namibdesertjojoba.com/ • For info on natural oils in Namibia: http://www.nbri.org.na/sections/economic-botany/INP/sectors/Marula • for info on devils claw: http://www.nbri.org.na/sections/economic-botany/INP/sectors/Devils-claw

4.7	External interventions - ref agriculture <u>Government:</u> • Extension services (information, advise and support) • Projects (intro new technologies, medium to large scale commercial developments) • Services (mechanical field cultivation, bulk storage and markets, disease and pest control) • Crisis management; (Plaques and animal disease) • Research (seed, cultivars, breeding stock) – and distribution • Rural water supply – supporting agriculture (livestock and irrigated crops, and settlement in areas prior without water) <u>Donor community (direct and with Gov)</u> • Various ‘small scale interventions’ focussing on poverty alleviation and resource conservation through improved agric production practices and management • Various ‘large impact interventions’ implemented in partnership with Government (mainly EU funded) <u>Suppliers of technologies</u> • Focal area – developing a market for technologies (farming inputs, implements, infrastructure and services) <u>Market forces and marketing opportunities:</u> • Meat Corporation of Namibia – Meatco – developing and maintaining (at least partially) a formal market for cattle (in large numbers) – dormant at this stage in the area! • Grain storage (buying from farmers) • Agricultural Marketing and Trade Agency (AMTA) – developing a market for horticulture produce (fresh produce business hubs) including grain storage <u>Private interactions and developments:</u> • Establishment of private farming enterprises – initiated and ‘owned’ by farmers from other parts of the country making use of the local potential • Various types of partnerships and joint ventures between private entities and local communities reported on • Piloting and setting examples – usually support adjacent communities <u>Education and training – Vocational Training</u> • Rundu Vocational Training Centre – National Vocational Certificate: Horticulture and Crop Production • Mashare Agricultural Development Institute (MADI) – – National Vocational Certificate: Horticulture and Crop Production
4.8	Existence of family / school gardens = vegetable production – irrigated = seasonal • Family gardens – limited – mainly as water is limited at village level (supply) and vegetable production not a traditional practice. Despite this it is reported that more and more farmers establish small-scale vegetable gardens at household levels • Micro and small scale ‘commercial gardens with new technologies: seems to be a new development gaining momentum – driven by entrepreneurs • NGO/development agent driven community gardens: various initiatives undertaken with various rates of success – but always a valuable learning experience and critical exposure. Main aim is household food security, improved health and income generation • School gardens – have been established at selected school – but no success stories reported or observed. Constraints mentioned are lack of cash required, committed teachers and long holidays without anybody attending to gardens

4.9	Community kitchens • Non existent
4.10	What kind of fishing? • Fishing is a traditional activity – mainly for own consumption and sale at small scale on informal basis • No ‘commercial’ fishing activities observed or reported on • Fishing using traditional practices is approved • Fishing with ‘unapproved nets’ such as mosquito nets prohibited (penalties apply) • Ministry of Fisheries employs inspectors to control and inform – resource limitation prevents optimal performance and control • Fish farming not taking place – reported on various initiatives (projects) which failed to make it – except for one which is apparently functional
4.11	Coal production (<i>charcoal production and purpose</i>) • Not a common practice – thus not relevant • Commercial charcoal product illegal / not allowed in the region (and on communal land in general)
4.12	How many fishing families • No fishing families as such • Family members attend to fishing – for household consumption and sale of surplus • As reported, only a few individuals specialise on fishing as the only income generating activity – more on subsistence level ... • Fishing is a seasonal activity
4.13	Beekeeping Existence • Not popular in the region – no beekeeping activities reported on (except occasional wild harvesting of honey) • Some years ago, this initiative was promoted by Gov. – it was reported that a storeroom full of beehives does exist ‘somewhere’
4.14	Other agricultural activities – relevant to CC • Wild harvesting of indigenous products – as reported under (between 4.6 and 4.7) • Thatch grass harvesting
4.15	Existence of rural extension workers? • Ministry of Agriculture (MAWF) – Directorate of Agricultural Production, Extension & Engineering Services (DAPEES) (DAPEES) – for agric extension and services • Mentoring services – currently facilitated by Agribank of Namibia and Project: Communal Land Development Programme (CLDP) • Farming Instructors assisting and guiding Farmer Club member in vegetable cultivation and cryand cropping (based on principles of Conservation Agriculture) – By DAPP and DAPP • Various other informal extension and advisory services in place • Note: farmers search for advice from experts in area (sometime appropriate and sometimes misleading information provided)

5.	Environment
5.1	Environmental problems? – relevant to CC • Wild fires • Rangeland degradation (caused by overgrazing & overstocking (increase in livestock numbers) • Human-wildlife conflict – mainly referred to elephants • Control and prevention of over-fishing (not mentioned as a concern) • Occasional plaques (army worm in the current year) • Clearing of forests for field cultivation along river – now prohibited within 100 on side of river
5.2	Tree felling / Deforestation - reasons? • Strictly controlled by Directorate of Forestry (DoF) • Community involvement through management of Community Forests • Some controversial activities reported on in media recently (linked to Chinese ...) • Legal tree felling and logging currently attended to
5.3	Burns - reasons and size? • Usually accidental cause • Not 'controlled' burning allowed = illegal (no slash burning in Namibia) • DoF responsible to control wild fires – system in place (but might not be too effective)
5.4	Pollution rivers • Not a major concern – but to be considered are: • Garbage (plastic bags and containers – especially from urban areas) • Human waste (human excreta) – especially close to densely populated area washed into river • Chemical used for the control of mosquitoes (malaria control programmes) • No polluting industries along river
5.5	Significant changes - frequency of rain, water quantity, pests etc. As experienced and reported by farmers: • Rain starts much later these days (December vs October in the old days) • Dry spells between rain events become longer • Rainfall patterns gradually change • Droughts more occasional / more often – • More years without a satisfactory harvest Trends as documented by Namibia Metrological Services • To be sourced

PART III: Stakeholders consulted and key issues

Date	Organisation	Representative	Contact	Key issues from meetings
Mon 24 Feb 11:00 – 12:00	OKACOM – MAWF (MAWF head office) Rundu	Stefanus K Sikongo Basin Support Officer	081 232 7084	OKACOM – Kavango river water extraction licenses required CRIDF – large scale water extraction project for agric – close to Mayana FC EU/GEF demo project: Control fish harvesting & Tourism Kaudum OKACOM has public resource centre (PC based) at MWAFF HO in Rundu = Swedish funded Okavango Basin Management Committee (OKBMC) – Charlie Paxton is a contact person Water point committees exists – inland only – borehole based (partly brackish) – 70-100m deep Fishing activities fall under Ministry of Fisheries – inspectors to control, household and traditional methods of fishing approved but NOT with mosquito nets not approved Fish farming not too successful in general – one good project at Pungu, NNF supports – demo projects by Min Fisheries and MET
Mon 24 Feb 14:15 – 15:00	MET / Environmental Education (EE) (MET head office) – Rundu	Karel Ndumba – Chief Warden CBNRM & EE Jacobs P Ntsamba – Ranger & EE	081 255 7559 081 334 6662	MET attends to Environmental Education – Namibia Environmental Education Network (NEEN) EduVenture trained 30 teachers (5 days) Sep 19 to establish environmental education clubs (EEC) at schools – no funds to follow up (list of participants provided) Community Based Natural Resource Management (CBNRM) – Conservancies = Community Forest, focus on natural resources mngt – mainly inland (5 Community Forests in Kav E and W) Human Wildlife conflict & poaching = cross border issue but only Nam has structure in place – not Angola KAZA transfrontier conservation area – Kavango and Zambezi – incl Namibia, Angola, Zambia, Botswana and Zimbabwe KAZA = focus on wildlife OKACOM = focus on water Target groups for EE interventions: communal conservancies (community forests), EE clubs at school and out-of-school youth groups, other community groupings

				Maria Mwengure Youth and Environmental Centre in Rundu – is dormant – transferred to Min Edu. – option to revive No to limited cooperation with private tourism industry (has potential although) NB: MET a potential partner in AF project – focus on EE clubs at schools (related to GSP)
Mon 24 Feb 15:40 – 16:45	MAWF / Directorate of Forestry (DoF) (MAWF head office) Rundu	John Niipale - Chief Forester	081 159 9403	Management of community forests (aligned to conservancies) & regulate resource utilisation – community forest not close to river Dept nurseries – support tree planting initiatives and can train community on propagation, provide trees to public Permit required for forest clearing – not allowed next to river (100m from river line) Control thatch grass collection/harvesting Wild fire a big problem – mainly accidental causes Charcoal production not allowed (for commercial purposes) DoF involved in community outreach – limited resources Cross border reference – DoF part of OKACOM
Tue 25 Feb 10:00 – 11:00	Reg Gov – Governor's Office – Nkurenkuru	Heikki Ausiku – Special Advisor to the Governor (rep Sirkka Aushiku – Governor)	066 264 950 081 292 4111	Knowledge and skills dissemination (traditional knowledge and new technologies) amongst youth important – as they are gradually replacing the old(er) generation Reason for food insecurity is NOT ONLY climate change but also lack of equipment, trained draught animals, tractors, implements, inputs (seed) and pest control (birds and insects etc.) Private garden scheme initiated by Mr Winnie Metzger = 11 x 12 ha plots as a PPP Old army base used for seed production (MAWF) Many dormant gardens (private initiatives with PTO) potential to integrate in AF project – needs to be negotiated with Regional Council and Traditional Authorities Marema: community garden established with support of Governors's office Gov suggested formal meeting together with regional council representatives for support with implementation of project Structure: Office of president → Governor → Regional Council

Tue 25 Feb 11:30 – 12:45	Reg Gov – Regional Council – Kavango West – Nkurenkuru	Fransiska Hamutenya – Deputy Director: Rural Services (focus on CRAVE) <i>Note:</i> <i>Counterpart in Kavango East: Albertina Kauluma, Director Regional Services (no meeting)</i>	081 153 3370 081 152 5126 081 143 3782	CRAVE = Climate Resilient Agriculture in three (3) vulnerable northern crop growing areas CRAVE within MAWF – supports with ploughing services and horticulture projects (individual and group based) CRAVE works through Regional Council CRAVE based at Kahenge DAPEES agric office (and other regional venues) Ncuncuni – spring (surface underground water) – various flourishing community gardens CRAVE – 17 demo plots @12.5ha (dryland cropping) CRAVE contact persons: Vicky Hango (could not meet) Agric Liaison officer 081 286 2572 and Zeppi Havarua, Achief Agric Scientist (not met) Note: regional council has 1 community liaison officers and is member of Constituency Development Committee – with both having a focus on human capacity development 'wish list' includes: teamwork and sharing resources, focus on what is in existence and revive & strengthen (incl dormant projects) – example Oyster mushroom project started but now dormant
Tue 25 Feb 13:30	Chief Council: Okangwali Traditional Authority	Mr Christian Simuketa	081 246 3261	<i>Meeting did not realise despite continued follow up – continued to keep us waiting until team gave up and moved on</i>
Tue 25 Feb 15:45 – 16:23	National Youth Council of Namibia (NYC) — Kahenge Youth Office - Kahenge	Kupembona Augustinus Linyundo - NYC Regional Youth Coordinator - Kavango West, Constituency Youth Forum (Kahenge), under Ministry of Sport, Youth and National Service <i>Note:</i> <i>Counterpart: Amselm Marunga (meeting took place on Friday)</i>		Youth group associations include: Environment, health, sport, developmental (incl SME and entrepreneurship) religion and political – suggested to add agric youth clubs Capitalising on existing agric producer groups – improve quality, quantity and marketing channels Lack of skills and knowledge in agric – suggest that vocational training initiatives are improved, expanded and reach target communities (incl short courses) Establish agric as a recognised formal qualification (job) similar to teachers, nurses , office administrators etc. Challenge with land allocations – reported on 'clashes' (push-pull) with Traditional Authorities and Regional Councils Memo Office of the President – establish 121 registered youth business in 121 Constituencies (5 of 8 in the constituency based businesses focus on agric) – large scale commercial

		28 th – see below)		(which is not in line with DAPP) Issues hampering (agric) development: electricity and transfer of water from river to agric sites and access to water along established pipelines (to communities) NB statement: change of mindset of people required – with regard to various aspects – including the perception on agric production and agric entrepreneurship
Wed 26 Feb 09:00 – 09:30	Ministry of Health / Rundu State Hospital / ART Clinic / Centre for Disease Control (CDC) - Rundu I Hospital	Martha Laurens (in charge) Registered Nurse Represent Dr Margreth	081 634 2326 066 265500 081 759 1765	Food availability critical with intake of medication a challenge (ARV & TB) Food availability a bigger challenge in urban (Rundu) than in rural areas Reason for food shortage: Urban – loss of land due to development (not replaced) and rural – drought and limited water availability CAC = community adherence clubs – joint collection of medication by group representative (rural based groups), 6 – 12 members – need to qualify to join based on viral count etc. CAC, TCE and Farmer Clubs (FC) partially overlapping At village/rural level – APT (ART?) = antiretroviral therapy clinics General challenges (health): hygiene (ref garbage) & toilets Malnutrition in region reported with related mortalities (usually babies left with resource-poor relatives) Cross border relevance: CAC as many patients reside across river in Angola Outreach (community training) facilitated by Min Health through clinics (in partnership with DAPP)
Wed 26 Feb 10:00 – 11:15	Office of the Governor, Kavango East Region Rundu	Amb. Samuel K Mbambo – Governor Winfried Shikusho – Special Advisor to Gov Ms Sophia Muyenga – Private Secretary	081 144 4330	Communities ‘unable’ to address and solve challenges faced with – need external support Harambe Prosperity Plan – 5 pillars: effective governance, economic advancement, social progression, infrastructure development, international relations and cooperation; social progression includes hunger and poverty alleviation with emphasis on food production Office of the Governor sporadically (if funding available) assists with agric projects – could include DAPP initiative

		<i>Note: Contact person: Bonnie Kahere, Administrator – Office of the Governor</i>		Role of AMTA (agric marketing and trade agency) should include small scale farmers in marketing channel and relax stringent grading systems Mashare a suitable venue for establishing demo plots (and base for CCAC) Youth = future – with emphasis on food production, entrepreneurship and a multiplier thereof. Governor will support and harmonise access to land as required by DAPP AF project (with TAs) Reference to Zimbabwe cooperation (Mashonaland) ref seed supply & experts Conclusive remarks: every village should be food self-sufficient and produce surplus for marketing
Wed 26 Feb 12:10 – 13:50	Traditional Authority – Mbunza Traditional Palace Village 25km west Rundu	Alfons Kaunda – Homba (= Chief) (speaks Afrikaans)	081 777 7447	Impressed by DAPP TCE initiative Question by Chief (and answers in (...)) 1 how to go about to find gardens (Chief to assist) 2 where to market farmers produce (mainly for own consumption) 3 how long until trained farmers stand on own legs (asap – encourage to establish own gardens in parallel at home/village level) 4 where do they get water from (the river with solar pumps provided by project and from existing water infrastructure if sufficient water available) Where do they get equipment and infrastructure from (starter pack by DAPP (AF project)) In principle no problem with providing soccer field size gardens (100m x 50m) for agric community projects Chief explains in details process of land allocation to project (FCs) and addressing disputes (as currently experienced) Critical consideration for establishment of 40 FC community gardens: dormant gardens, water availability, need for food security at household level, ripple and multiplier effect on broader community How to ensure that project do not become dormant (fail) as there are so many examples of this (dormancy and failure) ... was mentioned as concern Conclusive remarks: no problem with land allocation of soccer field size – support granted
Wed 26 Feb	St Boniface College (30km east of R)	Zweubawzi Zotile Maseko (teacher & NEEN	085 718 7793	NEEN = Namibia Environmental Education Network (an association) – linked to Min Environment and Tourism – and connected to EEASA (environmental

15:00 – 16:21	Meet DAPP in Rundu	coordinator – Kavango East)		education association of southern Africa) – with focus on SDGs (UN) Responsible for established and new enviro education clubs (EEC) at school level – poses somehow a challenge in Kavango East EECs reps participated in annual NEEN conference in Rundu in 2019 MET & Min Edu → NEEN → schools St Boniface EEC grade 8-12, 100 members (school has 450 learners) – activities = cleaning, recycling, cropping & horticulture EduVenture – facilitated trip to Gobabeb Enviro Edu Centre Main constraint of activities = availability of funding (parents are in general resource poor)
Thu 27 Feb 11:00 – 12:00	Hambukushu Traditional Authority – Kangongo	Disho Erwin – Senior Headmen Moroshu Oswald – (assistant title?)	081 321 8991 081 340 1392	Comments and feedback: Gardens seasonally dormant – women working in field Involve youth – they are not doing anything – need something for them to do (reinstate pride and dignity) Kongonga garden A + B – one allocated to youth but can't get active as there is no water supply Question by Chief 1 who will be recruited at community level (local resource people with required capacity if available; Note; TA want to be involved in recruitment process) 2 why not school leavers (they do not have experience, capacity and authority) 3 how will farmers be trained (facilitation – learning by doing supported by applicable knowledge) 4 are all gardens only next to river or also inland (focus is on areas close to river due to water availability – but if there are viable opportunities (water or dormant gardens in inland) this will be equally considered)
Thu 27 Feb 15:00 – 16:00	Kavango East Regional Council Mukwe Constituency Office – Divundu	Hon John Thighuru – Regional Councillor Mr Ulanda Jacob – Senior Admin Officer	081 150 2951 081 257 7111	Council will assist together with TA to call and facilitate community meetings There are community gardens in area – some working and some dormant with potential to be revived Suggest to involve youth and not leaving everything to elders

		Mr Makando Francis – Control Administrative Officer	081 339 3432	Water transfer from the river to land-based agric activities poses a challenge and is regarded as a hampering factor Most vulnerable communities are east of the Kavango river (where river crosses Namibia to Botswana) – as there is no to limited water availability and main occupants are San communities Some support by private lodges (tourism) to communities – there is potential to expand this ‘partnership in development’
Thu 27 Feb 17:00 – 17:30	Kavango East Regional Council Ndiyona Constituency Office – Ndiyona	Hon Likuna Eugen – Regional Councillor	081 486 6247 066 258261	Some agric programmes and projects in place in the community (including women-based support groups) – but support urgently needed to re-vitalise them (support in cash, kind and especially human resources (process facilitators) – thus a focal person or organisation needed
Fri 28 Feb 09:00 – 09:45	Kavango East Regional Council – head quarter Rundu	Ludwig Thikusho - Chief Regional Officer (CRO) Ambrosius T Makongwa – Director of Planning Ludgela Nangura – Director of Finance	081 128 0561 081 149 7117 081 152 0940	Suggested to contact and involve the Namibia National Farmers Union (NNFU – with chairperson Adolf Maremi 081 154 7775 or 081 251 6671 (formally employed at school level to attend to HIV/AIDS programmes) Also contact Fanuel Kaparero (Director at School) 081 150 0522 Inform ‘people and leaders’ on what Climate Change is, the impact thereof (agric) and what leadership and communities can do to deal with and adapt to Joblessness a main challenge – encourage youth etc to become self-employed using soil and water to produce food – and develop activities along value chain NYS agric educational facilities (Berg Aukas and Frans Dimbare) to be involved – for training and can provide trainers (for short courses) People need - next to soil and water - equipment, infrastructure, production inputs, skills and knowledge – and the right attitude & motivation (=dignity) Reg Council has ‘food-for-work’ programme – mainly in support of gov driven developments (such as digging trenches for pipelines etc.) There are monthly regular and council meetings – DAPP (project) invited to make a presentation on project once funding granted (prior to start-up)

Fri 28 Feb 11:20 – 12:30	National Youth Council Rundu (meet Tambuti Lodge)	Anselm Marungu – Chairperson National Youth Council (and SPYL Regional Head) <i>(Note: counterpart to Kupembona Augustinus Linyundo - NYC Regional Youth Coordinator - Kavango West, Constituency Youth Forum (Kahenge), see above</i>	081 441 7401	Youth – ‘the ticking time bomb’ – need to engage them in local agric production initiatives – focus on food self-sufficiency and income generations (self-employment) Agriculture is regional strength of Kavango region – if every household has a productive backyard garden many challenges are addressed: = food, health and cash Suitable venues (youth projects) can be identified where DAPP/AF project can be integrated – water supply (for horticulture) a challenge – needs to be addressed – ref reviving and expanding/diversifying gardens Preferred to support and work with groups rather than individuals (<i>Comment GR: DAPP encourages individuals to establish their home gardens as a (parallel) exit strategy</i>) NYC will assist in organising youth groups to become engaged NYC affiliated agric training centres Berg Aukas and Frans Dimbare to avail trainers to capacitate youth groups to become engaged in agriculture
Friday 28 Feb 15:15 – 16:00	NEEN Kavango West Rundu – (meet Tambuti Lodge)	Johannes Nyandu – NET REP (=NEEN representative) & Teacher at AT Katjinakadi Sec School (on Trans Caprivi Highway) = this is a voluntary position!	081 231 4980	5 schools with Env Edu Clubs (EEC), 4 close to river, 1 inland. Inland garden challenged by brackish water (human and horticulture) = Johannes schools. Suggest to establish crops tolerant to brackish water like salt bush etc. EEC activities include gardens, tree planting, cleaning of environment, waste mngt and recycling, deforestation (ref Chinese induced logging and impact) etc. Participated in annual NEEN conference in Sept 2019 in Rundu, ESD (Educational Sustainable Development) to be integrated in school curriculum Sensitise on veld fires, conservation and protection, poaching and deforestation Talks on radio programmes on environmental issues with and educational angle (define target and listeners = impact) Reference made to Community Lead Total Sanitation Programme (CLTS) resorting under the MAWF (Min Agric) focussing on maintaining school hygiene with emphasis on toilets at schools