The effectiveness of health provision for women and girls in the context of gender inequalities and climate change

A case study of Misungwi District, Tanzania
Executive summary

Summary of main findings

- Climate-related risks to agriculture dependent and other poor households will continue to increase. Inter-seasonal and inter-annual variability of rainfall and temperatures will increase.
- Socio-cultural issues influence gender-based violence, including control over agricultural incomes. Both climate vulnerability (exposure and sensitivity) and the coping strategies available put women and girls at a disadvantage.
- Both exposure to and sensitivity of women and girls to gender-based violence increase with increased climatic variability. However, climate variability and climate change are not the main drivers of the violence suffered by women and girls. Women and girls face different types of violence when the climate conditions allow good harvests and market conditions enable good prices for harvests, and they face other types of violence when climate conditions lead to poor harvests and resource scarcity.
- Socio-cultural and economic factors are more important drivers of gender-based violence. But climate change will act as an exacerbating factor of gender-based violence. This cycle is likely to increase the need for health service provision for women and girls. Socio-economic development in Misungwi district without a gender responsive climate adaptive approach will increase risk burden for women & girls.

Kwa muhtasari utafiti umeonesha kwamba:

- Uchanganuzi wa taarifa na uchunguzi na utabiri wa hali ya hewa unaonesha kwamba madhara yanayohusiana na hali ya hewa kwa kaya zinazotegemea kilimo na kaya nyingine maskini yataongezeza, kama ilivyo kwa kuenea kwa mgonjwa ya mlipuko kutokana na mabadiliko ya tabianchi. Uchanganuzi wa taarifa za kihistoria za mazao unaonesha kwa ziada na uhaba wa mazao wilayani Misungwi (uchanganuzi wa madhara ya ubadilikaji wa hali ya hewa unafafanua kwa kina zaidi sababu za hali hii). Makadirio ya mabadiliko ya tabianchi yanaonesha kwamba madhara ya utabiri wa hali nyingine, wanaonekana na mabadiliko ya tabia nchini Misungwi.
- Utafiti unathibitisha kuwa yapo masuala ya kijamii na kiutamaduni ambayo yanasaabisha unyanyasaji wa kijinsia, ukiwemo usimamizi na udhibiti, usio sawa, wa mapato yatokanayo na shughuli za kilimo. Kuna ukosefu mkubwa wa usawa kwenye mabadiliko ya tabianchi na mabadiliko ya utabiri wa hali ya hewa. Wanawake na wasichana ndani ya kaya kuhusiana na matumizi ya mapato yatokanayo na kilimo na ufugaji. Wanawake na wasichana wana kauli ndogo au hawana kauli kabisa kwenye mabadiliko ya tabianchi. Aidha, ushahidi unadhihirisha kuwa madhara ya tabianchi wanaonekana na mabadiliko ya tabianchi. Uwezo mdogo wa kuhimili athari zitokanaza na mabadiliko ya tabianchi, wanaonekana na mabadiliko ya tabianchi na mikakati iliyo inawafanya wanawake na wasichana kwamba mabadiliko ya tabianchi.
- Kwa hiyo, swali muhimu la kujiuliza ni kama uhusiano kati uwezo wa kuhadhirika kwa athari za mabadiliko ya tabianchi na viwango vya matukio ya ukatili wa kijinsia? Ubaguzi wa kijamii na kiutamaduni dhidi ya wanawake na wasichana nchini nchini yanavyoongeza. Hata hiyo, utafiti unaonesha kwamba madhara ya tabianchi na hali ya hewa sio sababu pekee ambazo husababisha unyanyasaji unaowakabili wanawake na wasichana. Wanawake na wasichana hakubilia na aina.
tofauti za unyanyasaji kulingana na wakati uliopo. Unyanyasaji unaofanywa wakati wa mavuno au wakati jamii ina kipato cha kutosha ni tofauti na unyanyasaji unaofanywa wakati wa njaa au wakati jamii haina kipato.

- Sababu za kijamii, kiutamaduni na kiuchumi ndizo sababu kuu zinazababisha unyanyasaji wa kijinsia. Mabadiliko ya tabianchi na hali ya hewa yanachagiza na kuongeza matukio ya unyanyasaji wa kijinsia. Hali hii inapelekea wanawake na wasichana kuhitaji zaidi huduma za afya. Maendeleo ya kijamii na kiuchumi wilayani Misungwi bila kuwa na njia mbadala ya kuhusisha usawa wa kijinsia katika kukabili madhara ya mabadiliko ya tabianchi yatazidisha mzigo wa udhia kwa wanawake na wasichana.

**Recommendations**

A. Development and implementation of a monitoring, evaluation and learning (MEL) framework that can be used to track and assess the effects of these risks. **ACTION:** Proposal for a health service and climate risk MEL framework to be discussed with key stakeholders of the CHW intervention.

B. Hands-on training for district and regional level government agency decision makers in climate change risk management linked to the development of a district plan for integrating the relevant parts of the Tanzania health national adaptation plan into district development planning processes. **ACTION:** Embassy of Ireland and the Irish Aid Learning Platform to support development of training materials and the coordination of training & planning process with district and regional stakeholders.

C. A review of planned and autonomous adaptation actions within the agricultural sector to assess how adaptation can include gender responsive elements that contribute to the reduction of GBV related to the agricultural cycle. **ACTION:** Irish Embassy and the Irish Aid Learning Platform to support agricultural adaptation gender responsiveness review.

D. Awareness raising material developed for CHW on the links between climate change risks and health care service effectiveness and links to GBV incidence. **ACTION:** Irish Aid Learning Platform to develop the terms of reference for the development of the awareness raising material.

**Narrative**

This case study was financed under the Climate Change and Development Learning Platform. It seeks to contribute to the commitment made in Ireland’s new policy for international development “A Better World” to deepen understanding of the gendered impacts of poverty, inequality, climate change and conflict ... to include the furthest behind first, especially women and girls.

The case study was requested by the Embassy of Ireland in Tanzania to provide an analysis of the relative importance of contextual factors – gender inequalities (incl. gender-based violence) and climate change – to the effectiveness of health provision for women and girls. This report presents an analysis of the evidence gathered on current and future climate risks to community health and the effective delivery of health services for women and girls in Misungwi, and how these risks interact with gender inequalities (incl. gender-based violence) and other factors constraining access to health services.

The case study set out to address the following research questions: 1) How effective is health care provision for women and girls in Misungwi district and to what extent does the incidence of gender-
based violence affect their need for and access to health care provision? 2) How will climate risks challenge the effectiveness of healthcare provision for women and girls? 3) To what extent will the interactions between climate risks and gender inequalities affect health care effectiveness for women and girls?

Primary and secondary information was gathered to generate evidence on the following themes: institutional and policy framework; trends, seasonal variation and drivers of gender inequalities (including gender-based violence and violence against women and children); trends and seasonality in climate sensitive diseases and food security and gender equity of access to and effectiveness of health care; and, climate change scenarios for Misungwi.

The secondary information examined included: the policy framework for health, gender-based violence and climate change; socio-economic situation of women; access to health care services for women and girls; gender-based violence; and, gender differentiated climate risks.

The district level case study gathered primary information through a series of key informant interviews including with a sample of community health workers and staff of public services. Single-gender focus group discussions were held in different villages across the district.

A climate risks analysis was conducted focusing on the agriculture sector.

In summary the case study finds that:

- The various forms of gender-based violence\(^1\) are both increasing the need for, and constraining access to health services by women and girls.
- Climate related hazards affect women and girls’ needs for and access to health services in both drought and flood situations.
- Mainstreaming of climate change risk management into district plans is inadequate given the prevalence of climate sensitive diseases. There is little use of climate information and integration in planning.
- Strengthening the capability and coverage of community health workers can improve access to and quality of health services provision for women and girls.
- Analysis of weather observation data and climate projections indicate that climate-related risks to agriculture dependent and other poor households will increase, as will factors driving prevalence of climate sensitive diseases. Analysis of historic crop data shows the boom and bust nature of crop production in the district. Climate change projections indicate that this inter-seasonal and inter-annual variability will increase.
- Marginalisation of poorer members of society, including women and girls, will mean that the brunt of these effects will fall on them.

The case study provides robust evidence on the socio-cultural issues influencing gender inequality including gender-based violence. Inequalities range from exclusion from decision making, imbalances in control over resources and power imbalances at household level largely influenced by cultural value systems and beliefs. These issues also relate to how decisions for accessing health services are made. Socio-cultural and economic factors are major drivers of gender-based violence, and all cultures have

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\(^1\) For purposes of this study, we looked at sexual, physical, psychological and economic forms of violence which are further explained in the body of report
systems of health beliefs, attitudes and practices related to the causes of illness, how it can be cured or treated, and who should be involved in the process\(^2\). The study found that community members have traditional mechanisms of managing illness, as well as other cultural beliefs that reduce health service seeking behaviours. Largely men decided which health services a household can access determined by availability of resources and power to make decisions. The health centres are engaging men in antenatal services but face challenges in incentivising prolonged engagement.

There are large inequalities in household power relations over how crop and livestock income is managed and/or invested. Women and girls have little or no say in these decisions. In addition, the case study evidence demonstrates the significance of gender differentiation of climate risks. This is influenced by the role’s women and men, boys and girls perform and the resources they can use, and how these are affected by climate change risks. Gendered impacts were largely reported in agriculture productivity, access to fuel wood for cooking and to water in times of droughts. The socio-cultural discrimination against women and girls is a precursor of their relative climate vulnerability. Both climate vulnerability (exposure and sensitivity) and the coping strategies available put women and girls at a disadvantage.

There is emerging evidence that both exposure to and vulnerability of women and girls to gender-based violence increases with climatic variability. However, the case study indicates that climate variability and climate change are not the main drivers of the violence suffered by women and girls, but can exacerbate the levels of violence. Notable examples are when women walk long distances to collect fuel wood which will be scarce for every household and men sale it for personal gain, resulting in physical and/or psychological violence; or, if the harvests are bad and food is scarce, loss of income causes psychological violence on women who still have to feed their families. Climate change impacts will continue to exacerbate gender-based violence for both women and men, boys and girls, largely as a result of resource-based conflicts. The cycles of GBV are likely to increase the need for health service provision for women and girls. Socio-economic development in Misungwi district without a gender responsive (or better transformative) climate adaptive approach will increase risk burden for women & girls.

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2. Case study background and purpose

This case study was financed under the Climate Change and Development Learning Platform. It seeks to contribute to the commitment made in Ireland’s new policy for international development “A Better World” to deepen understanding of the gendered impacts of poverty, inequality, climate change and conflict ... to include the furthest behind first, especially women and girls.

The Embassy of Ireland in Tanzania is supporting AMREF Health Africa and Benjamin Mkapa Foundation (BMF) to establish a network of community health workers in Misungwi District. The principle objective is to improve the provision of health services for women and girls. The intervention is being implemented in collaboration with the Ministry of Health, Community Development, Gender, Elderly and Children. The Embassy has also partnered with Femina Hip and Kivulini to support work with adolescent girls on reproductive health and rights and action against gender-based violence in Misungwi District.

The community health workers are recruited from the local population; thus they know the behavioural profiles of the communities in the district and have the capacity to influence change with regard to demand for and access to health services by women and girls. The community health workers link community members to health facilities and, using an integrated approach, address the underlying causes that hinder access to health services to increase health service delivery.

To date, institutionalisation of the community health workers has been slow and turnover can be high for reasons including migration (mainly for those from pastoralist backgrounds), or to get better jobs and move on. The difficulties of remoteness of the areas where community health workers work is worsened by poor roads and scattered households. Local cultural factors and traditions can cause reticence to access health care services. Attendance at health meetings is affected by cultural beliefs that restrict women attending meetings.

The case study reported here was requested by the Embassy to provide an analysis of the relative importance of the contextual factors – gender inequalities (incl. gender-based violence) and climate change – to the effectiveness of health provision for women and girls, and to generate a baseline (and an evaluative framework) against which the intervention’s impact can be assessed.

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3 See: https://www.climatelearningplatform.org/
4 This background information was gleaned for secondary sources and from discussions with Irish Aid partners in the region including NGOs, government health agencies etc.
5 According to Irish Aid Tanzania approximately 95,000 people in Mwanza have received advice on combatting gender based violence. This has helped increase the number of rape cases seeking treatment at health facilities and the reporting of cases to the police. Cases reported to the Police “Gender Desks” increased from 274 in 2016 to 507 in 2017
The case study report presents an analysis of the evidence gathered on current and future climate risks to community health and the effective delivery of health services for women and girls in Misungwi, and how these risks interact with gender inequalities (incl. gender-based violence) and other factors constraining access to health services.

A scoping visit was made to the District to inform the finalisation of the case study design and terms of reference (ToR). The contextual factors identified are illustrated in the Figure below.

The effective delivery of health services in Misungwi district is determined by, among other factors, socio-cultural, environmental and climatic and gender inequalities (including gender-based violence). The socio-cultural factors include the traditional attitudes to health care, the preference for traditional healers, and the ability/willingness of women and girls to allocate time to attending health services. Climate-related factors include impacts of drought and flood periods on staple crop production and yields leading to reduced household income and staple food insecurity, and water quality effects on sanitation and diseases. The gender inequality factors analysed in this report are also seen to be important both in terms of the violence suffered by women and girls, and the way men dominate household decision making to the detriment of other members of the household, principally women and girls.

The community based health programme, specifically the community health workers, faces challenges due to the pace of institutionalisation and community health workers drop-out rates, poor communications including the remoteness of communities and dispersed distribution of homesteads, and the prevalence of negative attitudes to health care.

Observations from the scoping visit.

The scoping visit and subsequent discussions with colleagues in the Irish Mission enabled the elaboration of a conceptual framework to guide the design of the case study approach and methodology. In the full recognition of the huge complexity of determinants (socio-cultural and climate related to name but a few) and mechanisms (policies, strategies and stakeholders’ beliefs, attitudes, reactions and behaviours) that drive outcomes related to the effectiveness of health care
provision for women and girls, the diagram below represents at a high level the inter-relations that the case study examines.

At the apex of the triangular conceptual framework is the effectiveness of health services for women and girls as the main outcome area. A domain of factors determining the nature of outcome is gender inequalities. Understanding how gender inequality interacts with health care effectiveness provides a basis for the community health workers intervention to address gender-based violence. Another domain of interest in the case study is climate change risks to livelihoods. Secondary information indicates that climate risks can affect both the need for and the access to health care services. Both domains of determining factors affect the outcome area and the interactions between these domains is an area for exploration where greater context specific understanding is required.

Initial conceptual framework for the case study.

3. Case study approach and methodology

3.1 Research questions

The case study set out to address the following research questions:

- How effective is health care provision for women and girls in Misungwi district and to what extent does the incidence of gender-based violence affect their need for and access to health care provision?
- How will climate risks challenge the effectiveness of healthcare provision for women and girls?

In the scoping and development of the case study another research question was added:

- To what extent will the interactions between climate risks and gender inequalities affect health care effectiveness for women and girls?
These research questions are illustrated in the diagram below.

**Research questions**

- **Effectiveness of health services for women and girls**
  - How will climate risks challenge the effectiveness of health care provision for women and girls?
  - How effective is health care provision for women and girls in Misungwi district and to what extent does the incidence of GBV affect their need for and access to health care provision?

- **Climate risks to livelihoods**
  - To what extent will the interactions between climate risks and gender inequalities affect health care effectiveness for women and girls?

- **Gender inequalities incl. GBV**

**3.2 Information gathered and timeline**

During the case study primary and secondary information was gathered to generate evidence on the following themes: institutional and policy framework; trends, seasonal variation and drivers of gender inequalities (inc. gender-based violence); trends and seasonality in climate sensitive diseases and food security and gender equity of access to and effectiveness of health care; and, climate change scenarios for Misungwi. The table below describes these themes, the main information sources and how the information gathered was triangulated to analyse and generate valid evidence.

Primary and secondary information was collected as indicated in the table below.

**Information domains, themes and triangulation**

<table>
<thead>
<tr>
<th>Information domain</th>
<th>Main information sources</th>
<th>Triangulation</th>
</tr>
</thead>
</table>
| Institutional and policy framework                           | • Review of secondary information  
• Key informant interviews                                                                 | The institutional and policy framework as stated in documents was compared to the ground-realities described by the key informants.                                                                                 |
| Trends, seasonal variation and drivers of gender inequalities (inc. gender-based violence and VAW) | • Review of secondary information – project reports etc.  
• FGD with respondents in different communities  
• Key informant interviews                                                                 | The key information from the different primary information sources were compared and contrasted and then coherence with secondary sources assessed.                                                          |
Trends and seasonality in climate sensitive diseases and food security and gender equity of access to and effectiveness of health care

- Review of secondary information – project reports etc.
- FGD with respondents in different communities
- Key informant interviews

The key information from the different primary information sources were compared and contrasted and then coherence with secondary sources assessed. However, the disease surveillance reports were not accessed which affects the comparability of the results in terms of primary information and what is reported to the ministry of health.

Climate change scenarios for Misungwi

- Review of secondary information on climate projections
- Climate risk assessment focusing on agriculture sector was conducted.

The information sources were compared and a synthesis developed.

### 3.3 Methodology of the Misungwi case study

The purpose of the case study was discussed at Mwanza RAS and Misungwi DC Management. The Department of Community Development and Kivulini staff were also involved in the process.

Data and information were collected from PORALG, MOHCDGEC, Mwanza RAS and Misungwi DC. Policy, institutional and legal frameworks relevant to gender equality and health, as well as gender differentiated climate risks and impacts on women and girls were assessed.

Semi-structured interviews were conducted with different key stakeholders, including Government officials from departments of health, community development, education, agriculture, environment, planning; local government leaders, community health workers and civil society organisations. The main intention was to understand the institutional, operational and policy frameworks in relation to gender equality and access to health services for women and girls.

The table below describes which key informants were interviewed according to the main topics of the case study.

<table>
<thead>
<tr>
<th>Case study topic</th>
<th>Key informants interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy and institutional framework</strong></td>
<td>- Misungwi District Council-District Medical Officer- MDC DMO;</td>
</tr>
<tr>
<td></td>
<td>- Misungwi District Council –District Planning Office</td>
</tr>
<tr>
<td></td>
<td>- District Community Development Officer- CDO;</td>
</tr>
<tr>
<td></td>
<td>- District Education Officer (Primary) DEO (P);</td>
</tr>
<tr>
<td></td>
<td>- District Education Officer (Secondary) DEO (S);</td>
</tr>
<tr>
<td></td>
<td>- District Environmental Management Officer DEMO;</td>
</tr>
<tr>
<td></td>
<td>- Misungwi District Council- District Agriculture, Irrigation and Cooperative Officer MDC-DAICO;</td>
</tr>
<tr>
<td></td>
<td>- District Nutrition Officer- DNO;</td>
</tr>
<tr>
<td></td>
<td>- District Land Officer - DLO</td>
</tr>
<tr>
<td><strong>Gender equality and gender-based violence</strong></td>
<td>- Misungwi District Council- District Planning Officer;</td>
</tr>
<tr>
<td></td>
<td>- Village Executive Officer- VEO-Mwamanga,Fella,Igokelo, Ng’ombe,Misasi,Mabuki and Bukumbi</td>
</tr>
</tbody>
</table>
Focus group discussions were conducted with women and girls, and men and boys in selected communities in Misungwi to draw out the narratives of women and men as well as youth on gender inequalities, including access to livelihood resources and wellbeing. Discussions were also on the incidence of gender-based violence and linkages with climate variability and change to assess if impacts of changes in climate contributory factor for GBV. Deeper analysis was done to understand how the community deals with climate risks and how they affect health and wellbeing as well as livelihood resources.

Sixteen focus group discussions were conducted in eight villages from eight different wards. There were eight groups for women and eight groups for men, who were interviewed separately to give both groups space to express themselves. The discussion questions also included wider impacts on households, school children and the community at large. After discussions groups were brought together and were provided feedback on what has been discussed.

Focus group discussions and key informant interviews were conducted in the following villages across Misungwi district: Mwamanga, Bukumbi, Misasi, Fella, Ng’ombe, Mabuki and Busungo. The district map below shows the villages where focus group discussions and key informant interviews were conducted.
The semi-structured interviews with key informants and the focus group discussions were to gather evidence for a gender analysis of the situation of women and men in Misungwi. Assigned gender roles in relation to socio-economic positions, needs, participation rates, access to resources (including effective health services), control of assets, decision making power, coping mechanisms in times of climate risks, individual freedoms and rights in relation to gender based violence, and gender-differentiated climate change risks and impacts were explored.
4. Findings from the secondary information review

4.1 National policy and institutional framework for gender equality, and climate change

Tanzania’s Development Vision 2025 aims to attain high quality livelihood for its people and to develop a strong and competitive economy. Health is one of the key strategies, focusing on reductions in infant and maternal mortality rates. Other strategies include: ensuring food self-sufficiency and security; universal access to safe water; absence of abject poverty; economic growth rate of 8% per annum or more; attainment of macroeconomic stability; and an adequate level of physical infrastructure.

**Gender equality**

Gender Equality and Empowerment of women and girls remain a priority enshrined in the laws, policies and frameworks of Government. Tanzania and Zanzibar Visions 2020 and 2025 stipulates equality between men and women as laid down in the Constitution and recognizes gender equality and the empowerment of women in all socio-economic and political relations and cultures as one of the strategies to attain the vision.

Key national policy frameworks such as the Strategy for Growth and Reduction of Poverty (MKUKUTA I and MKUZA II in Tanzania Mainland and Zanzibar respectively) have identified gender equality and women’s empowerment as among the major development issues which require multi-sectoral approaches. Tanzania’s Five-Year Development Plan (FYDP II 2016/7-2020/1) emphasizes women’s economic empowerment as a means of bringing about equality in economic empowerment. The Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) is charged with coordinating and providing guidance for mainstreaming gender equality in all development processes. This is supported by the Women and Gender Development Policy and Strategy and an Implementation Plan on Gender. The Government has also introduced Gender Responsive Budgeting (GRB), led by the Ministry of Finance (MoF), for improved allocation and tracking of financial allocations in support of gender equality and women’s empowerment. Also, Tanzania has ratified a number of international and regional gender equality instruments.

Significant achievements towards gender equality include an increase in the number of women members of parliament, amendments of the Land Act to ensure equal rights for men and women, and in primary and secondary schools, the enrolment of boys and girls has become more balanced as a result of a conducive policy environment.

Tanzania has also mainstreamed gender into a number of its policies and development frameworks. The Zanzibar Gender Policy (2016), the Tanzania Mainland, Women and Gender Development Policy (2000) under review aim to ensure that gender equality aspects are mainstreamed in all policies, programmes and strategies. The MoHCDGEC established gender focal points in government ministries, departments and agencies, regional secretariats and local governments. These focal points are responsible for gender mainstreaming in their respective plans and programmes in collaboration with the MoHCDGEC.

**Gender based violence**

The Government of Tanzania has developed a number of policy instruments to address gender-based violence and violence against women and children including: the National Plan of Action for Prevention and Eradication of Violence against Women and Children (2001-2015); the National Plan...
of Action to Combat Female Genital Mutilation (2001-2015); the National Community Sensitization to Prevent and Respond to Gender-Based Violence (2012-2016); and, the Gender Based Violence Medical Management Guideline (2013). Also, the Government has developed a Multisector National Plan of Action to prevent Violence against Children (2013-2016); the National Costed Plan of Action for Most Vulnerable Children NCPAII (2013-2017); and, the Action Plan for Gender and Children Desks (2013-2016). The current National Plan of Action to End Violence Against Women and Children (NPA VAWC) 2017/18 – 2021/22 Tanzania mainland and Zanzibar National Plan of Action to End Violence Against Women and Children (2017 – 2022)

Despite the policies and guidelines to redress gender-based violence and violence against women and children, legislation to support implementation is limited. The penal code, Cap 16 (1945), had provisions prohibiting different types of violence including “cruelty to children” but the provisions were not known by many service providers and were overarching, lacking sufficient specifications and relevant details for enforcement. In 1998, the Government added the amendment of Sexual Offence Special Provision Act that included crimes of sexual offence into the law. This Act provides for stiff punishment of up to 30 years imprisonment for perpetrators of rape, and the right of compensation for gender-based violence victims. In 2011, the Government passed the Female Genital Mutilation law aimed at protecting women and girls. Implementation of both laws has been constrained by social norms and cultural practices. There is under-reporting of gender-based violence cases by gender-based violence survivors. Weak institutional linkages between the police, health facilities and judicial system and limited funding to facilitate effective downscaling from national to local level and limited forensic capabilities at all levels of the system limit the efficacy of these reforms.

The Government also passed the Marriage Act in 1971, which mandates equality in marriage. Marital rape is not included in this law and has not been made illegal in Tanzania. Section 13 (1) of the Law of Marriage Act, 1971, allows marriage of girls as young as 14 years at the consent of the court and boys at 18. Similarly, laws on inheritance are blatantly patriarchal. The Customary Law Declaration Order of 1963, as well as laws that govern probate and inheritance matters discriminates against women from ownership of productive resources.

**GBV related statistics from Mwanza region and Misungwi district**

Despite the high enrolment registered, completion of schooling for girls is not guaranteed. There is a high drop-out rate due to different reasons. A major reason is teenage pregnancy that is rampant in Misungwi schools. A report from the education officer on prevalence of pregnancies reported that girls are prone to pregnancies occurring during the longer holidays of higher primary or secondary school. During the harvest period girls are vulnerable when men use crop incomes to entice girls to be with them and pregnancies result. Below is a summary of the numbers obtained for three years (2017, 2018 and 2019) that show the numbers of recorded teenage pregnancies.

The numbers are a microcosm of a bigger problem that needs to be addressed to keep girls in school, ensure that they complete their education and that their rights to education is respected.
Cases of school age pregnancies in Misungwi district reported by the police and children to the education officer

The information was obtained from Kivulini, a non-government organisation working on gender-based violence, indicates that there is little uniformity in data collection, as different variables have been used at different time. Data is aggregated on a quarterly basis, sometimes the focus is on cases that are resolved, pending or unresolved, and at other times the prevalence of GBV across districts of Mwanza is available.

Much of the data are not GBV specific, but refer to general conflicts reportable to the police. The cases reported include land issues, matrimonial cases, inheritance, criminal cases, child maintenance, civil cases, GBV, abuse, VAW, rape, defilement, FGM and “other cases”. Some of the cases mentioned may fall under GBV though not recorded as GBV and some of the issues reported may not qualify as GBV.

Despite the inconsistency in the data, a descriptive analysis was done for the cases clustered under GBV and VAWC to ascertain the trends and patterns. These data are useful to triangulate with primary data from Misungwi.

Key observations from the descriptive analysis of the available data include:

- GBV across Mwanza is widespread. Misungwi has high GBV rates, but some districts have higher rates.
- Violence is higher for women and girls, but there are considerable numbers of men reporting cases of violence to them.
- Incidence of violence reports is highest from July-September, followed by April-June, with fewer cases reported January-March.
- Reported cases of matrimonial/marriage violence/abuse are most common in July-September.
Better consistency in data recording would enable better GBV tracking. It would be useful to disaggregate the data further for children – boys and girls – to understand who is being affected.

Information was accessed from the Police records on GBV for 2018 and part of 2019. Types of violence and the number of cases reported is available. From these descriptive data the following is observed:

- High incidence of teenage pregnancy reported. Reporting of cases is highest April-June and September-December.
- Rape case incidence is high particularly June-December
- Cases of child care issues are also high.
- Child marriages increase in the months of April-June
There remain many challenges in implementing gender equality and gender-based violence policies to protect vulnerable women and men, boys and girls. While gender constraints are identified by a number of policies, the policy solutions are often not well aligned with these issues. Clearer strategies would allow policy makers to move past the simple recognition that climate change will affect men and women differently and push for policy solutions that substantially close gender gaps.

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Health

Health is one of the key sectors and a priority in Tanzania as stipulated in the Tanzania Vision 2025. There are three policy and legal documents that support implementation of health sector activities: the National Health Policy (2007) (NHP); the Health Sector Strategic Plan IV (HSSP IV, 2015-2020); and, the Tanzania Public Health Act (2009). The NHP guides the improvement and sustainability of health services for the people of Tanzania by reducing mortality, morbidity and disability; nutritional improvement; and increased life expectancy. The HSSP IV supports the reduction of child and maternal mortality rates, prevention of infectious diseases and improvement of the environment and access to clean safe water. On the other hand, the Tanzania Public Health Act (2009) is an important enforcement mechanism which defines roles and responsibility of the health ministry and other stakeholders in addressing prevention and management of communicable and non-communicable diseases, hygiene and waste management. It also addresses reporting requirements. The Act notes the role of the Health Ministry as overseer of health issues including ensuring that issues related to climate change are addressed by developing appropriate programmes and facilities.

In terms of addressing climate change, MoHCDGEC has developed a health sector national adaptation plan 2018–2023, with the overall objective of giving strategic guidance to the Tanzanian health sector to establish a climate-resilient health system.

The United Republic of Tanzania Ministry of Health, Community Development, Gender, Elderly and Children has developed a Health – National Adaptation Plan (HNAP) to Climate Change 2018 – 2023 to guide the country towards a health system that is more resilient to climate change and a sustainable and healthy future for the Tanzanian people. Focus will be on addressing key health adaptation priorities for the country that include:

- Vector-borne diseases: malaria, dengue, plague, rift valley fever, lymphatic filariasis, human Africa trypanosomiasis, onchocerciasis
- Nutrition: stunting, wasting
- Water-related diseases: diarrhoea, dysentery, cholera, schistosomiasis, typhoid and trachoma
- Disasters: floods and droughts frequency

### Key strategic objectives of the Health NAP

- Reduce vulnerability & building adaptive capacity and resilience in the health sector
- Integration of climate change adaptation, into new and existing policies, programmes and activities within the health sector
- Guide health practitioners developing and operationalising a climate sensitive early warning system for diseases outbreaks;
- Mobilization and allocation of resources for adaptation to climate change in health sector
- Facilitate the integration of health priorities into the National Adaptation Plan (NAP) and support the NDC implementation process.

The HNAP is a good step towards linking health and climate change. However, the coordination and reporting are mainly focused on health staff with less integration of other sectors in implementation of the plan despite mention of collaboration with other agencies. It is not clear how this will be
translated to the lower local governments in practice and engagement of other sectors including gender, education, agriculture etc would strengthen addressing the social determinants of health and the drivers of climate change vulnerability.

**Climate change**

Tanzania ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1996 and has developed policies and guidelines that provide guidance on how to reduce vulnerability to climate change and promote low carbon growth pathways. These include: the Development Vision 2025 and its Long-Term Perspective Plans; Tanzania National Development plan (2016/17- 2020/21); the Nationally Determined Contribution (2015); the National Climate Change Strategy (2012); the national energy policy (2015); the Agriculture Climate Resilient Plan (ACRP) 2014-2019; and Guidelines for Mainstreaming Gender into Climate Change (2014). These policy instruments take into account extreme weather events as main threats to Tanzania’s sustainable economic development that require integrated planning across sectors and levels.

In 2014 the then Ministry for Community Development developed the National Guideline for Mainstreaming Climate Change adaptation in policies, plans strategies, programmes and budgets for MDAs, LGAs, CSOs, and private sector to strengthen gender equality in addressing climate change. The guideline provided a systematic approach to mainstreaming gender in related policies. Despite the existence of the above frameworks, the process of coordinating climate change actions across sectors and levels of government remains a challenge. Technical capacity on climate change is low in several sectors, and this is compounded by the meagre financial resources allocated to climate portfolios. Climate change has not been adequately mainstreamed or integrated in sector specific plans and strategies and at local government level, there is limited capacity as well as funding gaps to respond to climate change.7

A 2016 policy review on gender equality and climate change in the agriculture sector of Tanzania8 concludes that there needs to be better harmonization and coordination of gender equality integration in policies and sectoral plans. That policies and strategies relegate achieving gender equality to the NGO sector, while there needs to be enhanced institutional mainstreaming of gender equality across the agricultural sector.

In addition, proposed gender policy interventions do not yet address current gender gaps. Opportunities to redress this situation include three key national policies i.e. the National Environment Policy, the National Forest Policy the Land Policy, and the Gender and Development policy currently under review.

**4.2 Socio-economic situation and women’s wellbeing**

Efforts to empower women in Tanzania have focused on improving their status through awareness creation, education, training and access to health and family planning services and legal support and counselling. The Government in collaboration with development partners have programmes and

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7 Irish Aid 2018, Country climate risk assessment for Tanzania
projects on women empowerment focusing on increasing access to income, participation in decision making and control over assets and resources (Jeckoniah, 2015).

At current growth rates, Tanzania’s population is projected to reach 70 million by 2025⁹. Women and youth are among the most marginalized and underutilized Tanzanian citizens¹⁰. This scenario requires meaningful efforts to address women and youth issues and ensure that they are engaged in economically productive sectors as well as addressing the underlying factors that affect their participation. A World Bank 2015 report notes sustained macro-economic growth has not been inclusive and this perpetuates poverty, which in turn affects access to health services.

The Tanzania Demographic Health Survey (TDHS 2015-2016) findings note no significant gender differences in household cash control. However, the magnitude of woman’s earnings relative to her husband’s might affect the degree of control over the women’s earnings. A UN Women gender equality report in 2015 noted that women, as compared to men, experience higher incidences of poverty because of their biological and sociocultural vulnerability, which further creates gender inequality in access and control over resources. Over time, the incidence of poverty among women is increasing compared to that of men, and women’s reproductive roles affect their health more than men¹¹.

Negative masculinities and stereotyped gender roles hinder women in fully engaging in economic activities. Social norms mean time-consuming family burdens keep women in poverty. Starting at a very young age, females undertake many household chores. In addition, many get married and start families too early, reducing their education and employment options for the future and contributing to the demographic pressure on the labour market and social service system. In Tanzania, teenage pregnancy stands at 27% an increase of 4% from 2010 (TDHS 2016). All these disadvantages will limit the opportunities woman and girls have to benefit from further transformation¹².

The National Agricultural Policy (2013) recognises that gender relations are among several obstacles that hamper agricultural development in Tanzania. Women are disproportionately affected by gender-related challenges which include inadequate skills and knowledge, inequitable access to productive

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¹⁰ USAID, 2018. Gender and Youth fact sheet, Tanzania
¹¹ Tanzania facts and figures report 2018
resources – especially land, inappropriate technologies, and restrictive social-cultural practices and beliefs\textsuperscript{13}.

Women contribute 70 percent of staple food production. But in doing so they face challenges such as lack of access to credit and skills development, control of productive resources and high rates of domestic violence. The plots of women farmers are on average 40 percent smaller than those of men and have lower yields. Women have fewer hours to devote to farming and are less likely to hire labour or invest in high value crops due to limited financial resources\textsuperscript{14}. These factors exacerbate women and the household they lead exposure to poverty\textsuperscript{15}.

Land ownership and tenure is a challenge affecting women. The Land Act No. 4 of 1999 and the Village Land Act No. 5 of 1999 (amended 2004) provide for ownership of land for women and men (individually and jointly occupancy). And other sections provide guidance on equitable distribution of and access to land by all citizens, as well as decision making on matters pertaining to their occupation or use of land. Lack of secure land ownership for women contributes to the lack of identity as household owners, leaving women less able to effectively engage in agricultural extension services and in decision-making in the household and in the community at large.

\textit{Education}

There are strong links between education and health, related to access to income and to the skills and opportunities that people have to lead healthy lives in their communities\textsuperscript{16}. Low income and lack of assets associated with less education can make individuals and families more vulnerable during difficult times which can lead to poor nutrition, and failure to access effective health services (see the diagram below).

Tanzania’s 2014 Education and Training policy aims to increase access to primary and secondary education, and to improve the quality of education. Progress in increasing the quality and access to education has been made. In 2000, only 53\% of primary school-age children attended school (although there was gender parity in this abysmal number). Today, over 80\% are in school, with a higher percentage of female children than male, and Tanzania’s record on primary education is better than the average for low-income countries\textsuperscript{17}. Whereas females are more likely to complete primary school (80\% compared with 72\% for males), they are less likely to progress to secondary school (54\% compared with 59\%), they are also less likely to enter post-secondary education. The earlier analysis of pregnancy and early marriage for girls correlates with reducing numbers of girls continuing with their education.

\textsuperscript{13} Country Gender Profile  
\textsuperscript{14} United Republic of Tanzania, 2018. Women and Men, facts and figures  
\textsuperscript{15} FAO, 2011  
\textsuperscript{16} Center on society and health, 2015  
\textsuperscript{17} World Bank 2014
Pregnancy is the second most important reason for female student dropout rate from secondary school. It is also believed that pregnancy cases go unreported because when girls discover that they are pregnant, they do not go to school for fear of compulsory pregnancy tests which will eventually lead to expulsion from school.

Social and cultural factors such as early marriage and polygamy also negatively affect girls’ secondary education opportunities. Early marriage for girls/women is common in Tanzania and men are usually older than women at first marriage. The 2015-16 Demographic and Health Survey and Malaria Indicator Survey found that four in ten women aged 20-49 years were married before their 18th birthday, and 62 per cent married before they reached 20 years of age. In contrast, only one in 20 men are married before their 18th birthday, and 14 per cent married before the age of 20. Age at first marriage is an important determinant of gender relations. For girls/young women, early marriage is negatively associated with educational attainment, reproductive health, property ownership and decision making.

The Tanzania Gender Indicators Report (2010) notes that childbearing has a profound impact on women’s opportunities to seize social and economic opportunities. In addition to social and economic constraints, early childbearing can be extremely detrimental to the health, education and overall well-being of adolescent girls and young women, particularly if a girl falls pregnant out of wedlock or when in school.

4.3 Access to effective health services for women and girls
Gender mainstreaming in Tanzania is a priority for the health-related sectors. There is a focus on understanding gender equity in relation to family life improvements by multi-sectoral agencies operating at community and household levels.

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18 Tanzania Commission for AIDS, et al., 2008
Gender equity and equal opportunities to access health services for all people is promoted. The emphasis is on female empowerment in decision-making on health issues and to insure male involvement in the care of the family health. National plans such as the Five Year Development Plan II and Mmakati na Kukuza Umchumi na Kupunguza Umaskini Tanzania (MKUKUTA II) emphasize health in relation to gender related issues.

| Total population (2016) = 55,572,000 |
| Life Expectancy at birth M/F (2016) = 62/66 |
| Total Expenditure on health per capita (int'l $, 2014) = 137 |

USAIN 2015

However, gender barriers and negative norms impair women’s decision-making power when it comes to their health. They are not free to decide when, where and how to access health services. In traditional family hierarchies, the wife needs approval from a husband to get help for a sick child or for herself. If the wife acts on her own or decides to sell something to afford health services for herself, she can be beaten or face divorce. The majority of adolescents living in rural areas and not in school engage in income-generating activities. Those from households with a low socioeconomic status find it difficult to reach health facilities due to the long distances and the transport costs involved. This is coupled with long waiting times on arrival, owing to high demand at geographically dispersed health facilities.

A study by Bintabara et al (2018) identified four major hindrances that affect women’s access to health services. These include obtaining permission, obtaining money, distance to the health facility, and not wanting to go alone (lack of spouse or family member escort). The study also indicates that age, education, residence, possession of health insurance, socioeconomic status and occupation are strongly linked to access to healthcare. The study indicated a strong association between being in the poorest class of the wealth index and accumulation of multiple problems in accessing healthcare among women in Tanzania.

4.4 Gender based violence and violence against women and girls
The United Nations defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of..."

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such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life.”

Gender-based violence against women is the most prevalent human rights violation in the world. In a review of evidence of the effectiveness of gender-based violence prevention programming it was found that in low-income and middle-income countries, group training for women and men, community mobilisation interventions, and combined livelihood and training interventions for women render positive outcomes. Effective prevention programmes are commonly participatory, engage multiple stakeholders, support critical discussion about gender relationships and the acceptability of violence, and support greater communication and shared decision making among family members, as well as non-violent behaviour. But the prevention of gender-based violence faces entrenched beliefs as this quote from a husband in Mlali-iyegu village Tanzania makes clear: “...Before my wife started to attend maternity clinic she was very obedient to me; she listened to me and followed my instructions. We lived in peace and harmony according to our traditions. We believed that men are born to control women and women should obey orders from their husbands. Since my wife started to attend those stupid campaigns offered by LAS providers in clinic, she started challenging me and ignores our traditions by saying that men and women are equal. This is nonsense and lack of respect; it does not sound in my mind....”

The Government of Tanzania has ratified legal instruments on the rights of women including: the Convention for the Elimination of All forms of Discrimination Against Women (CEDAW), Beijing Platform for Action the Sexual Offences Special Provision Act of 1998, the Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa (Maputo Protocol the Southern African Development Community Protocol (SADCC), Legal Aid Services have been established to enhance women’s awareness of human legal rights including all forms of gender-based violence. Tanzania achieved the MDG indicator focused on gender equality and women’s empowerment and has related policies and strategies to reduce gender-based violence.

27 Share of women in wage employment in the non-agricultural sector and the proportion of seats held by women in national parliament.
Despite these policy level commitments gendered discrimination and violence against women and girls are widespread in Tanzania. Currently the country ranks 154 out of 188 countries with a rating of 0.538 in the Gender Inequality Index\textsuperscript{28}. Root causes for gender inequalities include historical and structural power imbalances between women and men and pervasive gender stereotypes. Gender-based violence is are fuelled by patriarchal norms and traditions and impunity before the law, and have far-reaching consequences not only felt in terms of the psychosocial and physical well-being of entire families and communities, but also undermine Tanzania’s overall economic development\textsuperscript{29}.

There are different forms of violence against women and children, either in the form of physical, sexual, psychological and economic. The most common forms of gender-based violence against women and girls in Tanzania take different forms throughout women and children's lives, particularly in rural areas of Tanzania. These include, wife beating and sexual violence such as marital rape, deprivation of necessities, early marriage, abuse of the elderly, and cultural practices like FGM\textsuperscript{30}.

A study conducted on the costs of delivering services for gender-based violence at health facilities in Tanzania\textsuperscript{31} found that emotional gender-based violence was the most commonly assessed type (68 percent of gender-based violence client encounters), followed by physical gender-based violence at 45 percent, sexual gender-based violence at 29 percent, and neglect at 3 percent.

\textbf{4.5 Climate change risks and gender differentiation}

\textit{Current and projected climate risks}

Average temperatures have increased by 1°C between 1960 and 2006. Yearly rainfall shows little change over the same period, but there is evidence of seasonal change in that the main rainy season March to June has recorded less rainfall. Sea levels have risen at 4–20 cm per decade in the second half of the 20\textsuperscript{th} century for mainland Tanzania\textsuperscript{32}.

\begin{itemize}
  \item Four in ten women have experienced physical violence
  \item Five women report experiencing sexual violence in their lifetime (from the age of 15).
  \item Spousal abuse, both sexual and physical, is even higher (44 percent for married women).
  \item 40 percent of women age 15-49 have ever experienced physical violence since age 15.
\end{itemize}

\textit{Tanzania Demographic Health Survey, 2015}

\textsuperscript{28} Accessed 20\textsuperscript{th} August 2019 \url{http://hdr.undp.org/en/countries/profiles/TZA}

\textsuperscript{29} See: \url{http://www.tz.undp.org/content/tanzania/en/home/ourwork/genderequality/overview.html}


\textsuperscript{32} USAID Fact Sheet. Climate change in Tanzania: country risk profile. \url{https://www.climatelinks.org/countries/tanzania}
Severe droughts, floods, livestock deaths, crop failures and outbreak of disease such as cholera, malaria episodes and deaths have been experienced in the last decades. Impacts on food shortage, poverty, deforestation and forest degradation, poor livelihoods and prevalence of infectious diseases have been analysed. Poor and rural communities are especially climate vulnerable, as their livelihoods depend upon climate sensitive resources and activities e.g. subsistence agriculture and forest resources\(^{33}\).

Climate system models have been used to estimate projected climate change impacts to 2050. These include increased average annual temperature of 1.4 to 2.3°C with greatest warming likely in the west and southwest of the country. The duration of heat waves is likely to increase by a week to three weeks and dry spells periods by up to a week. Probable changes to average annual rainfall vary according to location. Heavy rainfall events will increase in frequency by 7 to 40 percent, and intensity by 2 to 11 percent. Mainland Tanzania coastal areas will see sea levels rise by 16 to 42 cm. And finally, it is probable that the glaciers on Mount Kilimanjaro will disappear by 2050\(^{32}\).

In the absence of effective climate adaptation measures these projected climate change impacts could lead to increased risks of vector-borne diseases (e.g., malaria) and waterborne diseases. Flooding incidences also increase risks drowning and displacement. Heat waves will increase mortality and morbidity. And increased malnutrition will further weaken wellbeing if staple crop production does not find adaptive measures related to increasingly erratic rainfall, increased evapotranspiration due to higher temperatures\(^{32}\).

**Gender differentiation**

The IPCC Fifth Assessment Report recognized that the differentiation of climate change impacts is due to discrimination based on gender, class, ethnicity, age and (dis)ability (among other factors)\(^{34}\).

This was followed up by a synthesis report by the UNFCCC Secretariat into differentiated impacts of climate change on women and men\(^{35}\). The synthesis report found evidence that differentiated impacts of climate change on women and men increased vulnerability, especially of women. root causes are gender inequalities related to unequal power relations, discriminatory laws and customs, and unequal access to and control of resources. The synthesis report called attention to the importance of taking the differentiated impacts of climate change into account in climate policies, plans and action, including through the use of gender analysis and sex-disaggregated data.


Gender-differentiated vulnerabilities to the impacts of climate change are the cumulative result of a complex array of sociocultural, structural and institutional inequities, and affect the resource base of women worsening the vulnerabilities and unequal power dynamics.

Although a number of studies have been conducted on gender and climate change, information on gender inequality and adaptation strategies, particularly in Tanzania, is still limited. However, strong existing gender imbalances in agriculture have been identified showing that women are potentially at a comparative disadvantage in terms of participating in and benefiting from climate actions on the ground.

**Climate change and gender-based violence**

Health consequences of climate change have direct and indirect routes. They interact with other environmental and social factors. Extreme weather events might increase violence – including gender-based violence and violence against women and children, due to stress and powerlessness brought on by bereavement, loss of property and loss of livelihoods, post-traumatic stress, scarcity of basic provisions, social network breakdown, poor law enforcement, disruptions to local economies and markets.

Violence against women and children is a public health and human rights issue prevalent in many countries. A literature review of climate change and violence against women and children found that despite generally voiced concern there is a lack of relevant studies. The evidence available shows that women and girls face difficult conditions during and after extreme weather events. Exposure to climate related events seems to exacerbate women and girls’ exposure to all types of violence. Age and socioeconomic conditions shape how women and girls experience climate change risks and the knock-on effects of those risks.

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36 Venosa A. Mushi, Adolf F. Makauki, 2017. Climate Change Adaptation Strategies and Gender Inequality Among Pastoralists in Tanzania

37 WHO (2002). World Report on Violence and Health

38 Gaby Ortiz-Barreda (no date) Violence against women and climate change: What does the evidence say? Presentation at Conference on Human side of climate change.
5. Findings from the Misungwi case study

5.1 Population, land and climate

Misungwi district has a total population of 351,607 of which 177,610 are female and 173,997 are male – more than half of females are below the age of 18. There are 54,093 households of average size 6.5. Population growth is 2.8% per annum (NBS 2012).

Misungwi is one of the poorest districts in the region. According to statistics of 2000-2001, 40 percent of the population live below the poverty line with per capita income of TZS 90,000/-. There is high illiteracy rate in the communities.

The main economic activities in Misungwi are subsistence farming of food and cash crops and keeping of livestock, fishing and small-scale mining. Main cash crops include cotton, paddy, chickpeas and yellow gram and food crops include maize, millet, cassava, cowpeas and green grams. Livestock kept majority are cattle. The major ethnic group in Misungwi is Sukuma. (Ndulu 2004)

The district covers an area of 2553 km², of which dry land covers 2,378 km² and wetland 175 km². The district lies at an altitude ranging from 1000-1500 m above sea level. The soil types are predominantly sand and clay soils. The sandy soils in upper areas are of poor fertility and low water retention. Black cotton soils are found in lower plains and are normally fertile. The main vegetation in Misungwi district is grassland with scattered bushes and acacia trees. Patches of natural forests in state conserved areas characterize Misungwi although these are also under threat of encroachment.

5.2 Health care provision in the district

Misungwi District Council is responsible for delivery of decentralised public services including the delivery of primary healthcare services. The Administrative structure for provision of health care services in Misungwi District Council is embedded in the Health Sector Strategic Plan (HSSP) IV 2015-2020, the guiding document for the health sector.

Misungwi District Council has mandate to oversee delivery of social services including health care. Mwanza Regional Secretariats and the PORALG are mandated to coordinate, supervise and monitor health care provision at the local level. This is in line with the ‘decentralization by devolution’ approach that focuses on improvement of governance and improving management at facility level.

The roles and responsibilities of local government are stipulated in the Local Government (District Authorities) Act of 1982. The law gives local government authorities responsibility to promote the social welfare and economic wellbeing of all persons within its area of jurisdiction. The law specifically assigns the local government authorities the authority to build, equip and maintain district hospitals, health centres, maternity clinics and dispensaries.

The most senior local officer in the health sector is District Medical Officer (DMO). The Council Health Management Team (CHMT) is comprised of the DMO and senior local health care administrators who support the DMO.

The Comprehensive Council Health Plan (CCHP) is an annual health and social welfare local health service planning, budgeting, implementation and reporting mechanism. CCHPs translate the overall health policy and the health sector strategic plan into annual plans at the local level. It includes objectives, strategies, interventions and activities to address health priorities, and indicators to measure progress based on the Health Management Information System (HIMS) indicators.

All districts are required to prepare the CCHP on an annual basis using PlanRep, a Planning and Reporting database system. The planning process happen at two levels; health facility level and district
level whereby plans from the two levels are later consolidated to a CCHP. Ministry of Health and President’s Office Regional Administration and Local Government (PORALG) assess and prepare a consolidated summary analysis, which serves as a tool for comparing performance between Councils. It also helps Councils to address areas of improvement to meet national targets.

Map of Misungwi District showing locations of health facilities.

Misungwi District Council has 49 health facilities for providing services to the citizens and operates 44 dispensaries, four health centres and one hospital. Five dispensaries are operated by private sector and a hospital is operated by a faith-based organization. They rely on local health facilities such as dispensaries, health centres that are operated by Misungwi District Council. These facilities provide basic health services.

According to the Misungwi DMO, the most common diseases are malaria and worm infestation in adults, and children most commonly suffer pneumonia, upper respiratory tract infections and anaemia. Other prevalent diseases are HIV/AIDS and tuberculosis. Bilharzia affects communities living on the shores of Lake Victoria.

There are seven hundred and eighty volunteer community health workers and fifty-four paid community health workers in Misungwi district that operate at the village level. These workers have undergone short-term training of about three weeks.

Health care in Misungwi is constrained by a number of challenges including the limited numbers of health facilities and health staff, and insufficient budget for adequate provision. A number of non-state actor and development partners are supporting health care delivery in the District. Irish Aid is providing comprehensive support to improve health of women and girls by providing budget support to the district and to local organizations. Irish support includes working with local organizations AMREF Health Africa and Benjamin Mkapa Foundation to train, recruit and pay salaries of community health workers who provide health education and support to families. They also provide counselling services on a number of health issues such pre and post-natal care, care of children, nutrition and diet related illnesses, good hygiene practices, use of mosquito nets, supporting HIV and AIDS patients and dispensing medication for malaria and pneumonia for children. The community health workers are also at forefront in responding to health emergencies such as cholera and Ebola preparedness.
5.3 Misungwi climate

The figure below describes the agroecologies identified in Misungwi district (climate, vegetation and soils).

Figure: Agroecology in Misungwi district – climate, vegetation and soils.

As shown in the graphs below of rainfall observation data from the Mwanza weather station rainfall ranges from 500mm to 1,200mm per annum in a unimodal rainfall with short rains starting in October to December and main rains from March to April. The rainfall is erratic and poorly distributed with high variability within and between seasons. The rainy season is characterized by short dry spells that are detrimental to crop production. The mean and maximum temperatures are around 18°C and 30°C respectively.
The two climate types identified in the district are described in the table below.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Somewhat humid domain</th>
<th>Semi-humid domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative stations</td>
<td>Mwanza</td>
<td>TZ-rfmz1</td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>27 – 30 °C</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>15 – 18 °C</td>
<td></td>
</tr>
<tr>
<td>Annual rainfall</td>
<td>1,319 mm (± 55)</td>
<td>997 mm (± 36)</td>
</tr>
<tr>
<td>Annual evapotranspiration (ETo)</td>
<td>1,668 mm (± 9)</td>
<td>1,737 mm (± 21)</td>
</tr>
<tr>
<td>Aridity Index</td>
<td>79%</td>
<td>57%</td>
</tr>
<tr>
<td>Season onset date</td>
<td>23 Sep (± 7 days)</td>
<td>31 Oct (± 4 days)</td>
</tr>
<tr>
<td>Growing period (LGP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td>257 – 311 (± 8 days)</td>
<td>208 – 268 (± 8 days)</td>
</tr>
<tr>
<td>Sep-Jan</td>
<td>147 – 165 (± 8 days)</td>
<td>100 – 109 (±8 days)</td>
</tr>
<tr>
<td>Feb-Jun</td>
<td>87 – 141 (± 7 days)</td>
<td>97 – 157 (± 6 days)</td>
</tr>
<tr>
<td>Dry season</td>
<td>50 – 104 (± 10 days)</td>
<td>92 – 153 (± 5 days)</td>
</tr>
</tbody>
</table>

5.4 Health, gender and climate policy implementation in Misungwi

A review of the institutional framework for health, climate change and gender reveals that there are linkages that can be explored to coordinate responses and reduce the impact of climate risks on health delivery and gender inequality.

Gender and health both fall under one Ministry, the Ministry of Health, Community Development, Gender, Elderly and Children, and the Ministry of State – President’s Office Local Government, as the implementer of all health policies at district level where coordination of the institutional operating mechanisms can be explored. On the side of climate change, Tanzania has developed a Health National Adaptation plan (HNAP) which links health and climate change and can be a starting point to work on the health/climate linkages. There are also the traditional coordination mechanisms for health and environment which are useful at local level.

The coordination mechanism for the comprehensive implementation of the HNAP is based on existing mechanisms within the health sector. However, to enhance coordination, the health and climate change working group was created with members from all relevant stakeholders in the health sector. While coordination for the HNAP implementation is within the Health Ministry and climate focal points are designated, there is no clear linkage with other key sectors, though the coordination is all through the Vice President’s Office (VPO).

In view of gender being a cross cutting issue, Gender Focal Points have been established and institutionalized in Government Ministries, Departments and Local Government Authorities. The gender strategy is executed through Community Development Workers located in all Regional Secretariats and the Local Government Authorities. There is also close collaboration with NGOs and CBOs. Despite the good linkages, there are challenges that remain in the area of Institutional

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39 Mean annual
40 Average over 1998 – 2012 period; number in brackets refers to the standard error of the mean
41 Average annual ETo over 1998 – 2012 period, calculated from the daily weather data for Mwanza and Tz-rfmz1 propagated by GYGA using the Penman-Monteith method as set out in Allen et al. (1998) and EWRI-ASCE (2002)
42 Proportion of annual rainfall that satisfies annual ETo: Annual rainfall / ETo
43 Length of the growing period, in days, defined as the period during which there is a positive balance between rainfall and half ETo, taking account of the soil’s available water storage capacity (AWC)
44 Lower values refer to soils with AWC =30mm/m and higher values to soils with AWC = 150mm/m
45 Length of period in days between end of Feb-Jun and start of Sep-Dec growing seasons
Framework. These include inadequate capacity for gender mainstreaming into policies, strategies, programmes and plans and inadequate reporting and monitoring mechanism among different actors to facilitate proper recording and reporting.

The secondary information review indicates the favourable policy environment in Tanzania needs to operationalise responses for effective health service delivery, address gender inequality including gender-based violence and violence against women and children, and to respond to the risks of climate change. Interviews were conducted with district health and other local officials to understand how the institutional framework and the policies are supporting implementation of interventions, projects and programmes (refer to the table of respondents).

The response from most of the key respondents recognised that a national gender policy is in place, others did not know of it. Some made references to how the policy is reflected in sector implementation plans and operations. Of those familiar with the policy, some knew of the sections on support to women’s health, children’s wellbeing and women’s representation in decision making. However, most of those interviewed did not know the components of the policy.

Informants were not clear on which position at the district level has responsibility for gender mainstreaming, though most respondents identified the Social Welfare Officer (SWO) and/or the Community Development Officer (CDO) as the focal points and recognised that some cases are handled by the Police Gender Desk.

Regarding climate change integration in development plans, respondents were not well informed if and if so how this is happening. Responses are seen as sectorial and mainstreaming is seen as a separate intervention. There was no evidence of mainstreaming climate risk management into district processes. However, specific sectors e.g. agriculture had relevant interventions identified, but not linked to the district plans.

Most respondents recognised the role of the Tanzania Meteorology Agency in providing (zonal) forecasts. Access is through radio stations with no structured access mechanisms to the district. The forecasts are used in the agriculture sector, but not in the health or any of the other sectors. Only very few respondents recognised that climate information is used in planning and those that did mention it referred to the agricultural sector especially managing the effects of droughts on crops.

In terms of reporting on health and disease surveillance, quarterly reports are prepared by the district and can be accessed as hard copies. More frequent surveillance is done in times of disease outbreaks. Other reports prepared include disaster reports prepared by the Environmental Management department and food security monitoring reports done by the Agriculture department. No mechanism is in place to support early warning of climate risks.

5.5 Trends and seasonality in climate hazards, climate sensitive diseases and gender-based violence

Focus Group Discussions (FGD) were conducted with groups of women and men in the villages across Misungwii district to understand local perceptions of the differentiated climate change impacts on

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46 Most = more than half of interviewees; some = less than half; few = one or two of interviewees.
women and men. At each session summary results were shared with both groups in plenary for discussion and comparison.

**Climate-related hazards and vulnerability**

Common climate-related hazards to livelihoods and resources were identified through a series of FGD with local people. Participants were able to map the linkages and rank and score them in order of intensity and impact.

Table. Composite assessment of the relative level of impact of climate-related hazards on livelihoods and resources.

<table>
<thead>
<tr>
<th>Key resources livelihoods</th>
<th>Drought</th>
<th>Flash floods</th>
<th>Prolonged sunshine</th>
<th>Strong winds</th>
<th>Hailstorms</th>
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<td>Land</td>
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<td>Small-scale enterprises</td>
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The male and female FGDs agreed that climate-related hazards have negative impacts on communities and their resources. The male groups particularly noted that drought severely affects all livelihoods and resources, including mining. The women identified micro enterprises as one of livelihoods affected by climate-related hazards in terms of reducing the means of production and access to markets.

In terms of vulnerability, the FGDs indicated that women and children were more at risk than other groups. It was noted that women are not homogeneous, pregnant women, those that are lactating, and the elderly are even more vulnerable. Children’s vulnerability was related most to access to education and maintaining health. Cases of floods affecting infrastructure and leading to poor school attendance was also mentioned. Food insecurity was believed to affect school attendance and performance, as well as being a cause of students dropping out to engage in child labour. For pre-school age children, the impacts are mostly on nutrition and health.

Through the FGDs the trends in hazards frequency and magnitude were identified. Both the women and men’s groups recorded that climate-related are happening more frequently with more severe impacts. Local people theorised that deforestation (a recent practice) is the major cause of changes in climate-related hazard trends. Droughts are perceived as more pronounced now than in the past, and there is greater uncertainty in weather seasonality, characterised by more dry spells and reduced rainfall. Changes in livelihood activities was identified as increasing the pressure on natural resources e.g. increased livestock holding is reducing the forested areas degrading pastures.

47 The scoring system used was as follows: 3 = significant impact 2 = medium impact 1 = low impact, 0 = no impact
48 The term ‘prolonged sunshine’ translated from Swahili was commonly used locally to refer to periods of clear skies and high temperatures associated with low rainfall.
**Climate-related hazards impacts on health, livelihoods and gender relations**

The table below lists some of the impacts of climate-related hazards identified during the FGDs and key informant interviews in villages across Misungwi.

**Table: Climate-related hazards impacts on health, livelihoods and gender relations**

<table>
<thead>
<tr>
<th>Impacts of climate-related hazards on health</th>
<th>Impacts of climate-related hazards on agriculture and livelihoods</th>
<th>Impacts of climate related hazards on gender relations and gender-based violence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much rain and floods coupled with poor hygiene and sanitation leads to cholera incidences which increase costs for health centres.</td>
<td>Loss of crops resulting in food insecurity and loss of household income.</td>
<td>Women’s vulnerability was related to their gender roles including increased distances looking for water and firewood during droughts, or for food in food scarcity situations. This adds to their workload and is related to increased gender-based violence by their husbands when women seen not to comply with expectations of their roles.</td>
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<td>Loss of income affects access to health services where community members have to pay as a result many people go to the traditional healers.</td>
<td>Increased soil erosion as a result of flash floods</td>
<td>Some men abandon their families during difficult times which increases stress for women and children.</td>
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<td>Reported case of women and young girls exchanging sex for money during difficult times were reported, which sometimes leads to acquiring HIV/AIDS (Misasi).</td>
<td>Droughts impacts felt more due to the low soil and low water retention rates in Misungwi.</td>
<td>Girls are sometimes raped and become pregnant as they travel long distances to fetch water. Earlier cases of teenage pregnancy correlate with this observation.</td>
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<td>Low income seasons affect attendance of antenatal appointments and some women give birth at home which is dangerous for them and the unborn babies.</td>
<td>Lack of pasture leading to death of livestock.</td>
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<td>Increased poor health for the elderly due to poor feeding and inability to access health services.</td>
<td>Drought dries all the water sources, such as dams and water streams, this impacts agriculture, household water use and mining activities.</td>
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<td>During rainy seasons, health outreach services are affected due to bad roads. This is worse where distances to hospital are long.</td>
<td>Resorting to unsustainable practices due to climate hazards, especially charcoal burning.</td>
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<td>Eye infections during dry and windy seasons.</td>
<td>Increased diseases and pests affecting animals and crops</td>
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</table>

In the FGDs, community members mapped the seasonality of activities across a year and identified different events including times of hazards, times of food scarcity, income increase and periods of high gender-based violence cases. This allowed discussion of the linkages between seasonal activities and gender-based violence, but also to determine cropping times and climate impacts in different seasons. The seasonal calendar below focuses on information gathered on hazards to women and children. It
is drawn from information gathered during FDG in the villages of Mabuki, Bukumbi, Misasi and Ngombe.

It was reported that during the planting seasons, women and children provide labour. This affects attendance at health services for pregnant women, lactating mothers and children due for immunisation. This was also confirmed by the nutrition advisor at Misungwi health center, she noted that during planting seasons the number of women and children coming to the health centre reduces significantly.

Seasons of food scarcity present high numbers of malnourished children due to poor feeding for both the mothers and the children.

Composite seasonal calendar focusing on hazards to women and children.

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The data analysed show that there are lower cases of physical violence reported in January to March season for 2019. From police data, only 2% of the cases were related to physical violence compared to 4% and 6% in the next quarters. This correlates with the seasonal calendar developed from FGD where it was reported that between January and April, women provide labour and incidence of physical violence are less. It is also a period where incomes are is low and focus is on replanting.

Contrary to other scenarios where conflict is higher during resource scarcity, in Misungwi, it was reported that scarcity is characterised by reduced physical violence and men stay home after spending all income, treating women and children well so they can provide the needed labour.

While physical violence is low, sexual violence is high in that period, there are segments of wealthy males in the community who take advantage of the situation to abuse girls and get them pregnant because they can provide the much-needed income. It was reported in the FGDs that for the men who have money, this is the time to marry since the dowry payment is low and its easy getting women, including young girls being pushed into early marriage. Young women and girls, including those of school age, are being exploited sexually by men who have resources to engage in early marriages or
taking second wives when the dowry price is low. Economic hardships for girls were reported to push them into sexual activity in order to gain money to be able to attend school.

Climate risks related to increase in rains and flooding intersect with malaria, cholera and diarrhoea ailments increasing care roles for women. It was reported that workload for women and girls is high in this season due to labour in the fields, food scarcity in some households increasing demands on women to look for food.

In the data on reported GBV cases to police for 2018, there is high incidence of sexual violence in Misungwi and generally in Mwanza region, with higher rates for women than men. The police data correlates with that from the FGDs on the high and seasonal incidence of teenage pregnancy cases. In 2018 and 2019 mid-year period July to September was characterised by high cases of teenage pregnancy. The FGDs reported that sexual violence leading to teenage pregnancies and physical violence cases related to conflict of resources and income increase during harvesting period. This trend was confirmed by the District Social welfare Officer who handles gender-based violence cases. Festive seasons following harvests where men have higher levels of disposable income are related to higher exposure of women and girls to sexual activity and to sexually transmitted diseases.

In terms of climate impacts, it was reported that this mid-year season is characterised by prolonged sunshine leading to drought and strong winds. These result in coughs, colds, eye infections, urinary and urinary tract infections. We did not however access systematic data on disease prevalence to be able to triangulate this. In both rainy seasons and dry spells significant infection risks include cholera, dysentery, eye infections, urinary tract infections, colds, malaria and worms. These are related to increases in temperatures, winds, drying-up of water sources. Flooding is correlated with increases in malaria cases.

In both women and men’s FGD, the informants demonstrated understanding of how food insecurity and nutrition-related diseases particularly affect children and pregnant women. The women’s groups noted that food shortages affect the nutritional status of all groups leading to poor health.

The men’s FGDs noted the importance of having adequate numbers of health facilities within reasonable distances. They also recognised the work done by community health workers in supporting the provision of health services especially when disease prevalence if high.

The effects are different for women and men, boys and girls. For example, UTIs are common among women and girls. Both men and women groups discussed and agreed that weather seasonality has changed. They noted that the frequency and magnitude of climate-related hazards has increased over the past decade. The information from the FGDs indicated the diverse gender roles in local households.

The nature of gender roles affects access to key services. The women and child labour affect children’s education due to absenteeism and affects women in terms of accessing health services. This is related to work burden and to women having less freedom to make their own decisions on service access.

The increase in gender-based violence cases during harvest seasons is reportedly due to conflict on use of resources in the household. Women’s groups noted that men abandon them and their children to go and spend the harvest income (earned by the household but controlled by the men). Control over household resources and decision making are both sources of conflict and can lead to psychological and physical violence for women and children at the hands of men. Power relations are at play. Men use economic resources to exert their power on women and children to the detriment of the families.
Male FGDs reported that ignorance, culture and traditions are major causes of gender-based violence and domestic violence. Women FGDs also noted unequal distribution of resources as the major cause of gender-based violence and domestic violence. Both groups noted that creating awareness and women’s empowerment will be useful to reduce GBV cases. While reporting is useful, it does not stop the violence unless the root causes are addressed.

Table. Local ways that women and men cope with hazards.

<table>
<thead>
<tr>
<th>Events</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food scarcity and loss of income</td>
<td>• Buying food from local markets</td>
<td>• Selling animals to get money for food.</td>
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<td>• Borrowing from neighbours and friends.</td>
<td>• Sell of labour.</td>
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<td>• Engage in small businesses to be able to buy food for the family.</td>
<td>• Charcoal production for sale.</td>
</tr>
<tr>
<td></td>
<td>• Sell of labour.</td>
<td>• Mining.</td>
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<tr>
<td>Gender based violence against women and men</td>
<td>• Involve family members, religious leaders and tradition leaders</td>
<td>• Create awareness against gender-based violence.</td>
</tr>
<tr>
<td></td>
<td>• Reporting gender-based violence cases to village authorities and police.</td>
<td>• Difficulty in reporting gender-based violence cases due to masculine expectations of defending oneself and some commit suicide for fear of shame</td>
</tr>
<tr>
<td></td>
<td>• Report to district Community Development Office.</td>
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<tr>
<td>Poor health</td>
<td>• Save money secretly to pay for medical services particularly for children.</td>
<td>• Men usually seek medical attention when it is already late.</td>
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<td>• Use community saving groups to obtain money for health care</td>
<td>• Consult traditional healers first before going to a health facility.</td>
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<tr>
<td></td>
<td>• Use of mosquito nets, boiling drinking water and observing good hygiene practices.</td>
<td>• Few men mentioned attending at health centres on time.</td>
</tr>
</tbody>
</table>

5.6 Climate risks analysis for agriculture in Misungwi

Alongside the case study activities in Misungwi a climate risk analysis for agriculture in the district was conducted. The full risks analysis is provided in Annex 2. Here, the main findings are summarised.

The aims of the climate risk assessment were to assess the importance of climate related hazards the communities are facing, households’ vulnerability to those hazards, as well as people’s ability to cope, with a view to identifying interventions that have the potential to improve their overall resilience to climate variability and long-term trends.

The approach to climate risk assessment is based on the risk equation where climate risks are determined by not only the scale of the climate hazard (e.g. flood, drought, etc.), but also and especially by the exposure and sensitivity of livelihood systems to these hazards, as well as ability to cope and adapt.

The climate risk analysis considered two time-horizons: short term, current risks associated with naturally fluctuating climate drivers; and, long-term risks associated with climate change. While this study provides some insights on where climate is potentially headed, it has not considered long-term changes to socio-economic vulnerability and adaptive capacity which are likely to also affect future climate risk.

Agroecological characterisation identified two main zones in Misungwi district (see subsection 6.3 above) – differentiated as somewhat humid (most northerly quarter of the land area) and the semi-
humid (the rest of the district to the south). The somewhat humid domain is conducive to most crops, including the more water-demanding crops such as maize and rice. The main soil types in the region are Planosols, with inclusions of Vertisols in the depressions and some with alkaline/sodic properties.

The climatic conditions of the semi-humid domain are less conducive for the more water-demanding crops such as maize and rice, as well as for crops that require a longer growing season, such as Cassava and Sweet Potatoes. While rainfall in some years might be adequate, it will be insufficient in others, potentially causing crop failure. As a rule, the further South, the worse it gets and the lower the elevations (benefiting from rainfall run-off), the better a crop will be able to cope.

**Current climate risks to crop-based agriculture**

The annual growing season in the somewhat humid climatic zone starts sooner, lasts longer and is distinctly more bimodal than in the semi-humid zone. There is a noticeable difference also between the two domains in terms of the progression of the season:

- The **somewhat humid** zone (Mwanza) starts with a fairly long rainy season, usually longer than 150 days, followed by a short dry spell, followed by a shorter second season of between 90 – 120 days
- The **semi-humid** zone (RFMZ1) starts with a shorter season of between 90 and 120 days, followed by a very short dry spell, followed by a second season of about the same duration. In many years, though, both seasons merge into each other, giving farmers more options to make the best use of the rainfall they may get

The lengths of the growing seasons depend very much on soil type.

- The higher soil moisture storage of the deeper soils gives on average 20 – 25 more days growing time overall, mainly in the second growing season, which will benefit from residual moisture stored during the first season
- The *light over heavy textured, shallow Planosols* in the lowlands have on average 20 – 25 fewer growing days than the upland soils, also mainly in the second growing season when the LGP becomes marginal for most crops
- The *heavy textured, deep Vertisols* benefit from a high water-holding capacity and will extend the growing season by 35 – 40 days compared to the upland soils.

Within-season dry periods are a significant hazard to crop production. The first rainy season has a higher probability of dry spells than the second, and the risk of significant within-season dry spells is also somewhat higher in the Somewhat Humid compared to Sub-humid climatic zones. This is probably caused by the longer potential growing season for that region from September – January.

Closer examination of historic data on soil moisture profiles revealed two years with very serious moisture deficits in the first growing season, namely: 1998/99 and 2010/11 (both strong La Niña years) in the somewhat humid zone and three years in the semi-humid zone, namely: 1998/99, 2005/06 and 2010/11 (two strong and one weak La Niña years).

**Current climate change risks**

The table below shows an analysis of climate change trends for the period 1998 to 2012. These data are derived from a mixture of ground and satellite observations.
Table: Recent climate change trends affecting agriculture across two agroecological domains in Misungwi

<table>
<thead>
<tr>
<th>Period</th>
<th>Somewhat humid domain</th>
<th>Semi-humid domain</th>
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<tbody>
<tr>
<td><strong>September – January</strong></td>
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<tr>
<td>Onset of rains</td>
<td>Starting somewhat earlier</td>
<td>No change</td>
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<tr>
<td>End of rainy season</td>
<td>Ending somewhat later</td>
<td>No change</td>
</tr>
<tr>
<td>Length of growing period</td>
<td>Somewhat longer</td>
<td>No change</td>
</tr>
<tr>
<td><strong>February – June</strong></td>
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<tr>
<td>Onset of rains</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td>End of rainy season</td>
<td>Ending somewhat later</td>
<td>Ending somewhat later</td>
</tr>
<tr>
<td>Length of growing period</td>
<td>Somewhat longer</td>
<td>Somewhat longer</td>
</tr>
<tr>
<td><strong>Dry season</strong></td>
<td>Significantly shorter</td>
<td>Significantly shorter</td>
</tr>
</tbody>
</table>

The fact that crops depend on rains to arrive after a long dry season in order to germinate and grow represents a big challenge to farming in this part of the world, especially as it is never certain when rains will fall and whether the first rains will be sufficient to cover the crops’ early requirements. And because soils do not benefit from water reserves stored during the year’s dormant season, crops grown during the first rainy season will find it hard to overcome even short dry spells.

Continued rains at the end of the first season and the start of the next will cause problems at harvest of the first crops. This too is largely unpredictable and farmers often have very little means of dealing with such situations. While the second season will benefit from moisture held over from the first season, the second season will often be too short for a fully successful crop.

The very limited ability of the soils across the district to hold excess rainfall means that flooding will be a recurrent issue.

Crops are at constant risk of failure. The 15 years of data analysed shows that the first growing season failed twice in the northern and thrice in the southern parts of the District. The risk of flooding is ever-present and the region was at serious risk of flooding twice over the 15 years period analysed, i.e. 2002 and 2006.

**Projected climate change risks (2040-60)**

The analysis takes up data from an assembly of climate system models. It shows consistent pattern of likely temperature increases for Misungwi, ranging from slightly less than 1 to slightly more than 2 °C, especially during the dry season. There is wider spread of rainfall projections, with some months exhibiting consistent rainfall increases, some others fairly consistent decreases, and some months with no discernible trend at all. What does tend to appear, though, is a fairly consistent pattern of more models predicting decreasing rainfalls in the dry season and slightly more models predicting increased rainfall during the rainy seasons.

By putting the climate projection data through soil/crop models, the likely impacts on agriculture can be assessed. Main rainy season onset dates remain largely unchanged. The length of the full rainy season will become somewhat shorter for the Somewhat Humid domain, but a more significant
change of about 10 – 15 days shorter will be experienced in the Sub-Humid zone. The gap between the first and second rainy seasons remains largely unchanged, as does the LGP of the first, Sep-Jan rainy season. The main changes are found during the second rainy season, with a decrease in LGP of 5 days for the Somewhat Humid zone and 10 – 16 days for the Sub-humid zone. The dry season in both zones is also projected to get longer by 1 – 5 days for the Somewhat Humid zone and 8 – 14 days in the Sub-humid zone.

The implication of these projections is that crop yields, particularly in the second rainy season will be more unpredictable. Though the modelling does not allow estimates of change to inter-annual variability, increasingly variable rainfall year on year is consistent with observed changes up until now.

Table: Main climatic characteristics of both climatic zones under climate change scenario. (Values between brackets refer to changes compared to the current climate.)

<table>
<thead>
<tr>
<th>Soils</th>
<th>Somewhat humid domain</th>
<th>Semi-humid domain</th>
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<tbody>
<tr>
<td>ETo</td>
<td>1,804 mm (+136)</td>
<td>1,906 mm (+169)</td>
</tr>
<tr>
<td>Aridity index</td>
<td>73% (-6)</td>
<td>52% (-5)</td>
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<tr>
<td>Onset date</td>
<td>266 (-)</td>
<td>304 (-)</td>
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<tr>
<td>LGP annual</td>
<td>263-283 (-3)</td>
<td>256 (-1)</td>
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<td>306 (-5)</td>
<td>210-233 (-9)</td>
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<tr>
<td></td>
<td>199 (-9)</td>
<td>254 (-14)</td>
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<tr>
<td>Season gap</td>
<td>10 – 15 (-)</td>
<td>24 (-)</td>
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<tr>
<td></td>
<td>5 (-1)</td>
<td>2.4 (-)</td>
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<td>10 (-1)</td>
<td>1 (-1)</td>
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<tr>
<td>LGP sep-jan</td>
<td>154-160 (-1)</td>
<td>145 (-2)</td>
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<tr>
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<td>164 (-1)</td>
<td>106-109 (-1)</td>
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<tr>
<td></td>
<td>99 (-1)</td>
<td>109 (0)</td>
</tr>
<tr>
<td>LGP feb-jun</td>
<td>90-110 (-5)</td>
<td>82 (-5)</td>
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<tr>
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<td>141 (0)</td>
<td>96-119 (-12)</td>
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<tr>
<td></td>
<td>85 (-12)</td>
<td>141 (-16)</td>
</tr>
<tr>
<td>Dry season</td>
<td>78-98 (+3)</td>
<td>105 (+1)</td>
</tr>
<tr>
<td></td>
<td>55 (+5)</td>
<td>128-150 (+10)</td>
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<tr>
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<td>161 (+8)</td>
<td>106 (+14)</td>
</tr>
</tbody>
</table>

Current trends derived from the analysis of the datasets we used show an increase in LGP in the North, possibly due to increased rainfall and a slightly lower temperature increase in that part of the District. This trend is much less obvious in the southern part of the District. The data also show a surprising but clear shortening of the main dry season across the region.

Climate projections to 2040/60 show definite increases in temperature across the region, especially during the dry season. There is some indication of a potential decrease in rainfall during the dry season and an increase during the rainy season, which would be compatible with the observed trends.

Projections indicate a potential reduction of rainfall over evapotranspiration and a reduction by two weeks in the LGP of the second season of the sub-humid climatic zone especially. These results indicate where and when increased demand for water will be most acute in case predicted increases in rainfall do not materialize.

There is a very significant adaptation deficit in the region: soil fertility is probably still a crucial determinant of crop yield and much could still be done to assist the farming community in better water management and addressing the risk of crop failure due to drought or floods. However, addressing the current adaptation deficit will not be sufficient to assist the farming community deal with longer-term climate change. But addressing this immediate need could have a major impact on both current well-being and long-term resilience.
Finally, the study’s description of the various challenges faced by the agricultural community also indicates that any changes in their vulnerability context could greatly affect the resilience of their livelihood strategies. Access to land and the type of land farmers have access to are key to success. Any changes in this regard will potentially have large impacts on livelihood outcomes. Crop type and cropping sequence will also affect success, and any changes in this, as fueled, for instance, by a gradually increasing demand for the land to produce cash rather than food for household consumption, could also have a significant impact on the resilience of farmers’ livelihood systems.

It will be crucial to assess changes in cropping calendars as affected by trends in access to land and in economic demands on agriculture to get a full picture of how evolving cropping calendars might influence gender-based violence.

5.7 Gender analysis of livelihoods and health

FGDs were conducted in different villages to better understand aspects of gender equality and specific gender-based violence issues, and to explore if there is a relationship between access to health services and impacts of climate change hazards.

The gender analysis mapped out the most important livelihood resources in the community and FGDs were used to discuss who has access and control over these resources, and how this contributes to or affects access to health services. Analysis of decision making, including health service access, was conducted to understand how power relations affect decisions. Challenges in accessing health services for women and men were also analysed.

An access and control profile\(^\text{49}\) was used to discuss the balance of decisions between women and men in relation to household and community resources. The results from the FGDs for men and women indicate that:

- All villages identified land, cash crops, food crops and livestock as the main sources of livelihood.
- Most male FGDs identified the presence of trees/forests as their source of livelihood.
- Women FGDs identified farm tools, means of transport including bicycles and motorcycles, stocks of firewood as key resources for them.
- There was consensus that while both men and women had access to all resources, women had no control over any resources and could not make any decision without the husband’s consent.

**Intra household conflicts over access and control over resources**

All FGD groups indicated that control over resources is a major source of conflict at household level. Most conflicts arise when men decide to sell crop harvests, livestock, and property without involving women and using the money obtained for personal gain. Few men in the FGDs reported that conflict will arise when women sell crop produce without their husband’s permission, even when they use the money for family needs. Women are also coerced into selling their own personal property to meet family needs, and if they refuse it ends in violence.

Female FGDs noted that women are denied control of income due to the perception that they will become arrogant. Some men restrict women to participate in village savings and loan schemes,

\(^{49}\) It differentiates between access to a resource and control over decisions regarding its allocation and use.
denying them economic independence. For the women who do not have their own income, they live under income restriction by their husbands and if they spend more than is allowed, they are beaten and have to pay back or be sent to their family home.

The cultural norm is that men own and control land which is an important resource where household livelihoods are derived. In FGDs it was mentioned that since it is the men who acquire land, they then sell it without involving their wives in the decision making. Also, local committees are also influenced by the same beliefs when dealing with land matters – “Sometimes village leaders try to sell the lands of a citizen without consent of the owner, especially if they are women or widows”.

The issues of power and voice are conflictive. FGDs reported that apart from men selling household resources without consultation, they also sell resources owned by women, especially livestock. In many cases the way sales funds are used is not agreed on, one women’s FGD quoted using women’s livestock to feed funeral gatherings and if they refuse, they are accused of murdering the dead family member as a way of silencing them.

Female FGDs reported that men decide who gets what and how much, there is no equal share after the sale of even small livestock – “Men control everything including small livestock even when slaughtering a chicken a man has to authorize it unless the livestock is already dead”.

There are resources that culturally belong to men for example land, trees/forests, even when women and children provide the labour, the power to sell is with the men. Women reported that most times they cannot speak for themselves because either the land culturally belongs to the man, so they feel they have no say, or they are coerced and fear retaliation from the husbands or the community. The male FGD also mentioned that a number of women refuse to cooperate with their husbands on outputs from the farms or livestock, so they keep separate budgets and cannot work together to address family needs due to diverse interests

Female FGDs mentioned that some men no longer take care of their families and leave the responsibility to women. To cope, the women have decided to rent farms and cultivate crops but still the income generated is spent on the family reversing roles that men would otherwise perform. Women depend on sell of food crops for their individual needs not provided for by men, and this can result in conflict. Women reported that they collect firewood, but that men sell it to get income thereby increasing the workload for women.

**Challenges in accessing health services**

Discussions in FGD and with key informants revealed that challenges in accessing health services include:

- Transport infrastructure was a problem especially for communities that are distant from the health centres. Some of the roads and bridges are not passable especially during the rainy seasons. Low income families are mostly affected, and it was reported that transport costs can at times be as high as 50,000 TSH to manage an ailment if one has to go to hospital several times.

- Low awareness on the importance of seeking health care services is a hindrance especially in communities with low health seeking behaviours. This is characterised by self-medication where most people buy drugs from the pharmacies without a doctor’s prescription or use of herbal remedies instead of visiting health centres.
• Cultural beliefs in witchcraft also reduces access to health services for households where men make decisions on how to spend or when to access health services.

• Inadequate tailor-made services to address issues of the youth was reported to be a deterrent factor for young people. While health services are available, it was reported that some health centres do not have youth friendly services. In addition, regarding HIV/AIDS, there is still stigma which has not been addressed, men especially fear to get tested for HIV due to shame if they are found to be positive.

**How access to resources is related to accessing health services**

Health services in Misungwi are not free, other than for expectant mothers and children between the ages 0-5 years and other vertical programmes like HIV, TB/leprosy, RMNCH and neglected tropical diseases. Other community members suffering from common ailments have to pay for health services. In the FGDs it was reported that the health costs communities incur include and transportation and the costs of medicine, tests and consultation. It was also reported that women without maternity dresses are not served by the health centres. However, it was noted that accessing private health care is more expensive but it is deemed to be of better quality than public services.

Resources used to access health services include: sales of crops and livestock; renting out farmland; and, borrowing from a neighbour in cases of emergency.

FGDs concluded that access to health services is determined by the level of income of the households and ability to make decisions to spend on health services.

A decision-making matrix was used to determine how health decisions are made at household level and how this determines the choices that people make. The following table describes the results.
Health Decisions | M | F | FGD responses
---|---|---|---
Attending antenatal care | X | | The decisions have been made by women but of recent, there is a requirement for men to accompany their pregnant wives for antenatal care. Most men don’t comply with this because they are afraid to be tested for HIV. Women reported that they have a big task of convincing husbands to escort them. If a woman gets pregnant and doesn’t have a man to go with, she has to get the letter from the local leaders to be allowed to get antenatal care. This can sometimes be a deterrent to attending antenatal care.
The medical officer at Misungwi health center acknowledged this problem and reported that the health centres are discussing incentives for men coming to the antenatal sessions but for now it’s a challenge.

Choice of health facility/service | X | X | Women take responsibility for household decisions on where to access health services. The decision sometimes is determined by the availability of cash. A few cases were reported where husbands make decisions because they are the ones who pay for the health services.

Access to family planning | X | | Most of the time the husband is the head of the family, so he decides if the wife should access family planning or not. It was reported by most groups that men are against family planning in favour of producing many children. When there is a disagreement between a husband and a wife the women make decisions to use family planning in secret.

Taking children for immunisation | X | | This was reported to be largely a responsibility of women, and in rare cases, a few men can remind a wife to take the child for immunisation.

Using traditional healers | X | | The husband will decide when the family should use traditional healers. This is sometimes due to mistrust for the services offered. It was reported that majority of men have negative beliefs that a person cannot fall sick without being bewitched, so they make wrong decisions for the families who usually seek medical attention when its too late at times.

Payment for health services related costs | x | x | The men make decisions since they provide funds for the services. It was however reported that their health seeking behaviours are very low, most times responsibility rests with the women to make the decisions.

| Table: How decisions to access health services are made at the household level.

5.8 Accessing health services and gender-based violence incidence
Forms of violence are not mutually exclusive and multiple incidences of violence can be happening at once, reinforcing one another. Inequalities experienced by a person related to their race, (dis)ability, age, social class, religion can also drive acts of violence. This means that while women face violence and discrimination based on gender, some women experience multiple and interlocking forms of violence. Gender-based violence in this case study was analysed at four levels: sexual, physical, psychological and economic. The analysis focused on the types of violence and causes, frequency, and how gender-based violence affects effectiveness of health services, as well as the education of girls.

**Sexual violence**

FGD indicated that sexual violence exists in Misungwi District. Most mentioned men beating and raping women or girls, with cases known and acknowledged by interviewees. The causes were linked

50 IEG,2017
51 Any sexual act performed on an individual without their consent. Sexual violence can take the form of rape or sexual assault.
52 Any act which causes physical harm as a result of unlawful physical force. Physical violence can take the form of, among others, serious and minor assault, deprivation of liberty and manslaughter.
53 Any act which causes psychological harm to an individual. Psychological violence can take the form of, for example, coercion, defamation, verbal insult or harassment.
54 Any act or behaviour which causes economic harm to an individual. Economic violence can take the form of, for example, property damage, restricting access to financial resources, education or the labour market, or not complying with economic responsibilities, such as alimony.
to lack of moral values of parents, children, teachers and the community. Consumption of alcohol was also a risk factor. It was also reported that failure by men to fulfil their family responsibilities leads to young girls seeking sexual favours from men and some end up being raped and abused. External cultural influences e.g. television, social media were also mentioned as risk factors. Poor reporting and lack of redress has kept the prevalence high.

Health Impacts of sexual violence reported include sexually transmitted diseases and infections like HIV, psychological problems, for example in the case of rape and defilement. And girls experience early pregnancies and early marriages.

Sexual violence also has negative impacts on girls’ education including drop out of school due to early pregnancies. The data earlier reported on high rates of teenage pregnancies support this observation. It was reported that some of the girls who experienced defilement feel ashamed to attend at school and end up dropping out. FGD members reported that some teachers seduce students and sometimes punish them if the refuse to comply with their needs leading girls to drop out of school.

**Physical violence**

Physical violence is also reportedly common in Misungwi. Poverty leading to resource-based conflicts was also reported. Some women FGDs mention excessive alcoholism and controlling husbands as common causes.

In terms of health impacts, it was reported that physical violence has led to permanent disability and sometimes death as severe impacts of the violence. The police report had only one death reported as a result of violence, however in the FGDs women mentioned that the death sometimes does not happen immediately but violence can be root cause and not the direct cause. There was also mention of trauma, injuries and psychological effects. Some groups of both men and women mentioned eroding the confidence of the affected victims, stress and heart related diseases. Increased household expenditure for treating gender-based violence victims was also reported which affects the household incomes.

The impact on children is grave, FGDs reported that spouse fighting, and separation makes some children run away and engage in child labour including domestic work where they face more abuse and exploitation. This also affects the education of the children especially the girl child.

**Psychological violence**

FGDs reported that psychological violence exists and is interlinked with other forms of violence.

The male FGD reported that incidence of poverty leads to men being disrespected and denied sex or even abused by women. This challenges men’s masculinity and affects them psychologically and can make them violent to protect their authority. Men reported that it is hard for them to share these issues externally. This sometimes leads to cases of suicide and increased violence among households. The data reported by Kivulini for regional GBV trends show that men also experience different forms of violence and this is being reported in some cases. These mostly include marriage related conflicts. Despite the data not being systematic, it shows that both sexes are affected. See sample data for July-September 2019 below.
Men in the FGD reported that some health conditions such as HIV/AIDS, temporary impotence, and infertility were reported to increase psychological violence where there is no support for the affected victim. This sometimes affects access to health services for fear of stigma and discrimination.

Negative cultural norms and traditional practices related to physical abuse, property ownership, land grabbing from women and widows are also sources of psychological violence. In the first section, the analysis on decision making and control over resources indicated that women have limited control.

In one FDG, it was reported that when a man dies and there is a funeral, a wife may be forced to sell her assets especially livestock to fund the expenses. If she refuses, she is accused of bewitching the dead person which causes backlash from the community. Cases of grabbing women’s property were also reported after losing their husbands or remarrying. All these erode the confidence in the community system and cause depression and anxiety among women and children. All groups agree that this can result in health issues including suicide, mental health issues, lack of self-esteem and alcoholism.

**Economic violence**

It was recorded at FGDs that economic violence is high in Misungwi reflected by cases where women are not allowed to control any resources. Some women are also restricted from engaging in entrepreneurship activities and denying them access to some of household assets where they have contributed. It was noted that few women own assets, most depend on their spouses to make all economic decisions on their behalf, most of which are not in their interest. This results into deepening poverty due to women’s diminished access to independent means of livelihood. Unfortunately, poverty violates the human rights of women and their children.

The impacts of economic violence reported include trauma, high blood pressure, retarded development for families, famine/hunger if the man sells of family crops, failure to access basic services including health and separation of families where the spouses fail to agree. Dropping out of school due to lack of school requirements was also mentioned, as well as increase in the number of street children.

**Trends and frequency of domestic violence**

Seasonality in gender-based violence was linked to the agricultural cycle. The senior district Social Welfare Officer confirmed that many gender-based violence cases arise during the harvest season (while the entire household cultivates crops together, only the husbands have the right to sell the crops). Cases arise between July and September. It was also noted that from January to June, many teenage pregnancy cases are reported in schools particularly of girls in the first two years of secondary school. The rate of teenage pregnancies decreases at higher ages. FGDs reported the linkage between early teenage pregnancy and harvest times when the girls are not in school.
Trends in violence are related to increases in household income, either from sale of crops or sale of livestock. These trends require monitoring to protect girls both in and out of school from sexual exploitation.

The Social Welfare Officer reported that his office receives information on an average of four matrimonial violence cases per day. FGDs mentioned that cases of violence are reported to community leaders, to schools, to community health workers and to non-government organisations. Severe cases are reported to the district authorities and the police gender desk.

**Challenges faced in addressing gender-based violence**

The FGDs discussed the challenges experienced in addressing gender-based violence and these include:

- Social norms and traditions that legitimatize gender inequalities,
- Women are denied equal participation in the development of productive activities,
- Education for girls is not valued locally,
- There is a lack of cooperation between the community and the ward executive office in terms of reporting violence,
- Fear of physical threats and retaliation from the perpetrators,
- Late reporting of cases makes it difficult to resolve them and help the victims of violence,
- Survivors are afraid of reporting gender-based violence because they still depend socio-economically on the perpetrators,
- Families cooperate with the perpetrators of gender-based violence and settle cases locally, to the detriment of the victims of violence,
- Some survivors cannot afford the transport costs to report cases, most are affected by economic violence as well.

The FGDs emphasised the need for strengthening awareness on gender-based violence and enacting bylaws in villages. Discussion focused on behaviour change and implementing the existing laws against gender-based violence was recommended. Some informants recommended that the community health workers should contribute to gender-based violence awareness raising and to the reporting gender-based violence cases. The existing Interventions by NGOs like Kivulini and others were recognised but it was noted that more needs to be done given the impacts being experienced.

**5.9 The role of the community health workers**

Interviews with the community health workers indicate that their roles is perceived as mainly to raise health awareness, link community members to health services and to do home visits. They reported that the linkage with their work with women and girls relates to issues of reproductive health and early pregnancy as the major issues. They noted that cultural beliefs constrain access to health services and use of contraceptives.
In terms of seasonality, the CHWs noted that harvest seasons are characterized by high reproductive health issues and the rainy seasons are associated with a number of ailments and also affect the road network making their work of visits difficult.

There was apparent contradiction in feedback on the question of whether their curriculum included GBV issues. A large number said it was part of the curriculum and a few said it was not. It is unclear whether the CHWs are adequately trained in the links between GBV issues and access to health services.

CHWs reported that they collect information on nutrition and livelihoods and they monitor nutritional support programmes to ensure they are appropriate to the food culture and nutritional needs of women (including pregnant or lactating women) and children.

The CHWs were not clear on how to integrate climate change issues into their work, but they acknowledged the relevance and requested training and simple guides that can help them track the impacts on health in their reporting.

6. Discussion

The discussion of case study evidence focuses on the three research questions:

- How effective is health care provision for women and girls in Misungwi district in the context of gender-based violence and violence against women and girls?
- How will climate risks challenge the effectiveness of healthcare provision for women and girls?
- To what extent will the interactions between climate risks and gender inequalities affect health care effectiveness for women and girls?

6.1 How effective is health care provision for women and girls in Misungwi district in the context of gender-based violence and violence against women and girls?
The district authorities recognise that national policies and strategies on health, climate change, and gender-based violence are in place. A Comprehensive Council Health Plan does exist in Misungwi. However, there is limited other downscaling of the national policies to the local level.

Misungwi District Council has the mandate to oversee delivery of social services including health care for all and particularly for women and girls. However, health care provision in Misungwi is constrained by a number of challenges including under funding, too few staff and insufficient facilities.

Non-state actors and development partners are supporting health care delivery in the District. Irish Aid is providing comprehensive support to improve health of women and girls through budget support and by supporting two local organizations Amref Health Africa and Benjamin Mkapa Foundation to train and support community health workers.

The evidence from local people indicates that the costs of accessing public health services can be prohibitive, and even more so if private health services are accessed. Costs include transportation, medicine, tests, and consultation. Acquiring nutritious foods for pregnant women, lactating mothers and children is also beyond some households’ means, or at least beyond some households’ willingness to pay.

Men most often decide what type of health services household members should use. This leads to self-medication and consulting tradition healers and witch doctors. Women mostly take decisions to attend antenatal clinics, immunization and family planning and often have to find the resources to be to do so.

The analysis of evidence in this case study on gender-based violence as a factor in seeking health care provision is in-line with the literature reviewed.

Case study evidence based on consultation of local people – women, men and key informants in public bodies – shows sexual violence and physical violence of women and girls are the highest types of violence being perpetrated in the district. This is confirmed by the police records and Kivulini data on reported cases. Excessive consumption of alcohol and family abandonment are associated with sexual violence. Many victims of sexual violence end up with teenage pregnancy largely affecting school going children, evidenced by the number of pregnant girls across Misungwi schools as reported earlier. Other effects include infectious diseases such as STDs and HIV/AIDS, and girls involved suffer early pregnancies, thus requiring more specialized health services.

There is strong evidence that physical violence is high in Mwanza region including Misungwi, and this supports the data discussed above. Poor parenting, sex deprivation for men, male domination and household power imbalance are seen as causal factors. Other causes include excessive alcoholism and conflict over the control of household resources.

Psychological violence affects the victims and their close families including children impairing their cognitive development. Economic violence causes women not to participate in income generating activities and takes away their access to and control of livelihood resources and assets. This has caused deepening poverty, which has impacts on how women and children access health care services when they cannot depend upon the support of their spouses and need to pay for health services.

Community health workers in Tanzania work in a context of shortage of health workers at all levels, poor transportation availability, long distances between health posts, inefficient distribution of medical supplies, and underfunding of the sector. This case study aimed to understand the importance
of community health workers in the context of climate change and gender-based violence. The community health workers play an important role in linking community members to health services particularly creating awareness on health issues and through support visits to encourage pregnant mothers and children to attend ante-natal and post-natal clinics. They interact frequently with women and girls including supporting reproductive health issues, maternal health and childcare issues like nutrition and gender-based violence. The community health workers reported that they attend village health meetings and gather opinions from community members on health issues, to improve effective delivery of health services. They compile and present monthly reports to the District Council Hospitals and Health Centres and report on food insecurity issues to village executive officer.

Community health workers have huge responsibilities in health care and local governance, and are an important link between communities and local government. The study explored how community health workers can be more integrated and better address underlying issues that affect women and girls’ effective access to health services. Community health workers do fill a gap in health service provision in their villages, but they are constrained by the size of their operating areas and the reporting duties. This study argues that there is a need to carefully review their training needs and operating procedures to see if this can fit with the additional responsibilities in new areas such as climate risk management and gender-based violence prevention.

To summarize, the various forms of gender-based violence are both increasing the need for and constraining access to health services by women and girls. There is evidence from the case study that strengthening the capability and outreach of community health workers may improve access to and quality of health services provision for women and girls.

6.2 How will climate risks challenge the effectiveness of healthcare provision for women and girls?
Climate information related to health risks is not available at the village and district levels and is not being used by the health sector in preparation of district development plans.

Climate-related effects can both increase the need for health care and reduce women and girl’s access to health services in both drought and flood situations. Drought tends to increase hardships resulting in poor health for poorer women and girls (and subject them to greater risk of violence related to accessing water and other resources). When households have fewer resources the willingness to pay (often determined by the male head of household) for accessing health services is even further reduced. Floods bring increased health risks and can make access to health services more difficult as roads become impassable. Many of the villages with health centres are divided by rivers and this makes accessing the centres more difficult for households on the other side of the river at times of heavy rains and flooding.

The case study found that drought, floods and strong winds are the main hazards to livelihoods and resources. Pregnant women, lactating mothers and the elderly are most vulnerable to the local impacts of climate change. Children’s vulnerability is related to poor nutrition. Climate hazards are perceived to be changing in terms of increasing frequency and magnitude. The climate risk analysis for Misungwi carried out as part of this case study corroborates this assessment by local people.

Increase in rainfall intensity coupled with poor hygiene can lead to cholera and other water and sanitation related diseases. Such incidences increase the pressure on public health provision, medical supplies, staff and facilities. Outreach and access to health care is affected. Attendance at antenatal and the under-five child clinics decreases during planting season. At this time, women and children are the main source of farm labour.

To summarize, climate related hazards affect women and girl’s needs for and access to health services in both drought and flood situations. Mainstreaming of climate change risk management into district plans is inadequate given the prevalence of climate sensitive diseases. There is little use of climate information and integration in planning.

Climate change risks due to increased temperatures, more erratic rainfall and increases in extreme weather events will increase. Marginalisation of poorer members of society, including women and girls, will mean that the brunt of these effects will fall on them. Adaptive responses within the health sector are required.
6.3 To what extent will the interactions between climate risks and gender inequalities affect health care effectiveness for women and girls?

Seasonality in the incidence of gender-based violence and violence against women and children was recognised in the focus group discussions and key informant interviews of the case study. The composite seasonal calendar focusing on hazards to women and children in section 6.5 above shows when incidence of this violence is highest during the year. It is very notable that both periods of good harvests (and income) and periods of shortages are associated by local people with increased risk of violence to women and girls.

The evidence from case study shows that women girl’s vulnerability is related to their gender roles. In times of shortage accessing resources increases the distances walked looking for water and firewood during droughts, or for food in food scarcity situations. Some men abandon their families during difficult times which increases stress for women and children. Men also abandon families when income allows them to engage in relations with other women and to take part of prolonged periods of harvest celebrations.

During times when there is not enough food in the family, women and girls are reported to engage in sex work, which apart from increasing the risk of violence can put them at risk of contracting sexually transmitted diseases.

6.4 Strengthening the monitoring, evaluation and learning framework for the health effectiveness for women and girls’ intervention

- The current M&E framework of the Misungwi Health Programme
The table below provides information extracted from the Misungwi project M&E framework. It lists project objectives, the related outputs and outcomes expected, and the indicators nominated for monitoring progress.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Outputs/Outcomes</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To enhance stakeholder’s engagement through advocacy in implementing CBHP</td>
<td>Increased utilization of RMNCAH and CEmONC services</td>
<td>• Percentage of pregnant women attending ANC care four or more times in a given period of time</td>
</tr>
<tr>
<td>2. To recruit and deploy CHWs in Itilima and Misungwi Districts and improve knowledge and skills of CHWs to implement CBHP activities.</td>
<td></td>
<td>• Percentage of pregnant women delivering at the Health facility</td>
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<td>3. To strengthen evidence-based implementation of CBHP to inform decisions.</td>
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<td></td>
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<tr>
<td>4. To impart knowledge and instil healthy behaviour change to form one secondary school girls regarding sexual and reproductive health and economic empowerment</td>
<td>Form One secondary school girls have increased knowledge about their sexual and reproductive health and rights, gender equality and gender-based violence</td>
<td>• Percentage increase in knowledge about sexual and reproductive health and rights, gender equality and gender-based violence among Form One secondary school girls</td>
</tr>
<tr>
<td></td>
<td>Form One secondary school girls have increased knowledge about entrepreneurship and basic business skills</td>
<td>• Percentage increase in knowledge about entrepreneurship and basic business skills of Form One secondary school girls</td>
</tr>
<tr>
<td></td>
<td>Form One secondary school girls have positive attitudes towards their sexual and reproductive health and rights, gender equality and gender-based violence</td>
<td>• Percentage increase in number of girls who have positive attitudes towards using modern contraceptive methods and practicing safe sex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Percentage increase in number of girls who agrees with the concept that males and females should have equal access to social, economic, and political resources and opportunities</td>
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<tr>
<td></td>
<td></td>
<td>• Percentage increase in number of girls who agrees that Gender-Based Violence (GBV) is less acceptable after participating in or being exposed to Nguvu ya Binti project</td>
</tr>
<tr>
<td></td>
<td>Form One secondary school girls have positive attitudes towards entrepreneurship and basic business skills</td>
<td>• Percentage increase in number of girls who have positive attitudes towards starting a business and earning an income</td>
</tr>
</tbody>
</table>
Trained secondary school girls are retained in school for the life of the project. Young people reached by Femina take informed and intentional action on SRHR, EE Gender equality, GBV and Climate change

- Proportion of girls retained in school for the life of the project
- Proportion of youth abstain/delay sexual deputy during the life of the project.
- Proportion of Youth start small income-generating projects including agricultural and observe changes in weather and seasonality.
- Proportion of youth Plan their finances; set financial goals for themselves; create business plans; conduct market research; and seek out capital
- Proportion of Youth challenge gender norms; respect diversity and differences; speak up for their rights; take individual and collective actions which benefit their communities

5. To enhanced Capacities of NPA-VAWC Committees towards preventing GBV and Improving reproductive health and nutrition to women, girls and children

Access to services for survivors of GBV and/or VAWC increases

- Percentage increase in the number of GBV/VAWC survivors who seek support from service providers

Objective 3 of the project is to strengthen evidence-based implementation of CBHP to inform decisions. This objective in itself flags the importance of putting in place an effective M&E system that can generate information for reflection and learning.

Responsibility for the delivery on the objectives is largely taken by one or other of the partner organisations in the consortium.

- Assessment of the project M&E framework

From a review of the project M&E framework and using the evidence developed through the case study on the effectiveness of health provision for women and girls in the context of gender inequalities and climate change, ideas were generated for how to strengthen the M&E framework and use the evidence generated for learning and adaptive management of the project. The issues identified and the ideas put forward are set out in the table below and are discussed below.

To get a better assessment of the effectiveness of the programme in benefiting women and girls, and to learn about how to reach the furthest behind, it is necessary to recognise in the MEL process that those girls that drop out of school and those women who for one reason or another are unable to continue as part of the beneficiary group. In addition, there is the need to access and incorporate disease surveillance data from both the beneficiary group of women and girls and more widely in MEL process. The case study revealed evidence of seasonality in health issues including climate sensitive diseases. These seasonality effects are liable to become more important as climate variability trends increase.
<table>
<thead>
<tr>
<th>Issues</th>
<th>Ideas for MEL</th>
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<tbody>
<tr>
<td>A. Need to recognise women and girls who have dropped out of school and not benefited from the programme’s interventions.</td>
<td>1. Quarterly survey/Routine data collected with sample of CHW to generate time series database on health cases for women and girls. After an 18 month period compare findings with new CHW guidelines and disease surveillance.</td>
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<td>B. Need to access and incorporate disease surveillance data from women and girls in MEL process.</td>
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<tr>
<td>C. Seasonality of other health issues – some of which are climate sensitive.</td>
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<tr>
<td>D. Secondary data on early pregnancy and GBV incidence are very heterogeneous and not possible to aggregate across space and time to identify trends.</td>
<td>2. Assess how to best modify and then aggregate data sources on early pregnancy and GBV to be able to identify trends over time.</td>
</tr>
<tr>
<td>E. Reported GBV cases indicate that Misungwi does not have the highest incidence – is this under-reporting, impact of current GBV work?</td>
<td>3. Use time series database to assess differences among areas of Misungwi with and without/ before and after</td>
</tr>
<tr>
<td>F. Marked gender differences in ways people cope with hazards – further information could be derived from a survey.</td>
<td>4. Tracking of climate observations combined with data from agricultural production surveys, and annual stratified survey of HH coping strategies (introduce weather stations into schools to improve climate observations across district). Also align with 1. Quarterly CHW survey (Survey can also be routine data collection)</td>
</tr>
<tr>
<td>G. Climate risks escalating within a generation – human health implication evidence required to inform adaptive measures in the health sector.</td>
<td></td>
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<tr>
<td>H. Child pregnancy links to periods of water scarcity – better evidence of this and other links among climate risks and human health.</td>
<td></td>
</tr>
<tr>
<td>I. Outcome level evidence that strengthening the capability and outreach of community health workers may improve access to and quality of health services provision for women and girls is required.</td>
<td>5. Examine and combine baseline data. Draw on M&amp;E from 1. Quarterly CHW survey End term evaluation.</td>
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<tr>
<td>J. Very poor visibility of the effects of climate risks on the health of the most marginalised (those being left behind). How to overcome this?</td>
<td>6. Use 1. Quarterly CHW survey, plus 4. Annual coping strategy survey</td>
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To address these issues through an enhanced MEL framework it is proposed to institute a quarterly survey (routine data collection) with a sample of CHW to generate a time series database on the incidence of health cases for women and girls. The women and girls that the CHW monitor will be all those in their communities whether or not they are in school and benefitting from the programme’s interventions. We recognise that the new CHW guidelines do provide for data collection however this is a new system and its effectiveness is unknown. So, the proposal is after an 18 month period the results of the quarterly survey will be compared with the findings from the government CHW information gathering system and the formal disease surveillance process.

The secondary data accessed during the case study on early pregnancy and GBV incidence were very heterogeneous. It was not possible to aggregate these data sources across space and time to identify
trends. It is necessary as a follow action to assess how to best modify and then aggregate data sources on early pregnancy and GBV to be able to identify trends over time.

The available secondary data on reported GBV cases from different districts indicate that Misungwi does not have the highest incidence. Whether this is due to under-reporting and/or the impact of GBV work under the programme is unknown. The use of reliable time series database to assess differences among areas of Misungwi with and without GBV interventions and the generation of before and after data for locations across Misungwi would help to identify with greater confidence the effectiveness of the GBV elements of the programme.

Climate risks to people in Misungwi are very likely to escalate significantly within a generation. There are human health implications. Evidence on these risks and health implications is required to inform adaptive measures in the health sector.

The case study evidence indicated marked gender differences in the ways that different people cope with hazards. The quarterly survey could be used to collate further information for a gender analysis of coping strategy.

The case study revealed some evidence of child pregnancy incidence linked to periods of water scarcity. Better evidence of this and other links among climate risks and human health are required.

Tracking climate observations combined with data from agricultural production surveys, and annual stratified survey of household coping strategies could be employed to improve the evidence base. The introduction of weather stations into schools could be used to improve climate observations across district and to include climate change awareness in schools’ curriculum.
6.4 Summary of main findings
The diagram below describes some of the main findings from the case study with regards to the interactions between climate risks and gender inequalities and how these affect health care effectiveness for women and girls.

**Main findings from the case study**

- Analysis of weather observation data and climate projections indicate that climate-related risks to agriculture dependent and other poor households will increase, as will factors driving prevalence of climate sensitive diseases. Analysis of historic crop data shows the boom and bust nature of crop production in the district (the climate risk analysis provides details on why this is the case). Climate change projections indicate that this inter-seasonal and inter-annual variability will increase.

- The case study provides robust evidence on the socio-cultural issues influencing gender-based violence, including control over agricultural incomes. There are large inequalities in household power relations over how crop and livestock income is invested. Women and girls have little or no say in these decisions. In addition, the case study evidence demonstrates the significance of gender differentiation of climate risks. The socio-cultural discrimination against women and girls is a precursor of their relative climate vulnerability. Both climate vulnerability (exposure and sensitivity) and the coping strategies available put women and girls at a disadvantage.

- The key question therefore is whether or not important climate sensitivity exists in the incidence rates of gender-based violence? There is emerging evidence that both exposure to and sensitivity of women and girls to gender-based violence increase with increased climatic variability. However, the case study indicates that climate variability and climate change are not the main drivers of the violence suffered by women and girls. Women and girls face different types of violence when the climate conditions allow good harvests and market conditions enable good prices for harvests.
and they face other types of violence when climate conditions lead to poor harvests and resource scarcity.

- Socio-cultural and economic factors are more important drivers of gender-based violence. But climate change will act as an exacerbating factor of gender-based violence. This cycle is likely to increase the need for health service provision for women and girls. Socio-economic development in Misungwi district without a gender responsive climate adaptive approach will increase risk burden for women & girls.

7. Conclusions

Senior district stakeholders recognise the gender equality policy framework at national level but there is inadequate knowledge about the policies and how to best downscale them to local level for implementation.

Seasonality in gender-based violence is commonly believed to exist and there is strong evidence of links to the agricultural cycle – e.g. physical and economic violence post-harvest in both good and bad years. There is also family abandonment by men following harvests and livestock sales. School girls lacking father’s support in some cases turn to sex to cover school costs. The gender-based violence is also associated with sexual and reproductive health issues and early pregnancies.

Climate-related effects both increase the need for health services – climate sensitive diseases, etc. – and reduce women and girls’ access to health services in both drought and flood situations. Socio-cultural and economic factors are more important drivers of gender-based violence. But climate change will act as an exacerbating factor of gender-based violence. This cycle is likely to increase the need for health service provision for women and girls.

The case study found evidence that there is recognition of the role played by National Metrological Department in the provision of weather forecasts and early warning of extreme weather events. But downscaling forecasts to district level is still limited. Plus, there is limited use of climate information in development planning. No defined process of integrating climate change into the district plan, but each sector expected to respond according to its mandate.

There is no clarity regarding mainstreaming climate risk management into district development plans. This is important as given what is known about future climate risks, any socio-economic development in Misungwi district without a gender responsive climate adaptive approach will increase risk burden for women and girls.

Community health workers are instrumental in linking community members to health services. The integration of climate change risks management and gender-based violence into training could be important. Community health workers themselves recognize that integration of climate risks into their training could be important.
8. Recommendations

A. The evidence of how increasing climatic variability across the district of Misungwi and of climate risks to the effectiveness of health care services for women and girls is sufficient to warrant the development and implementation of a monitoring, evaluation and learning (MEL) framework that can be used to track and assess the effects of these risks.

ACTION: Proposal for a health service and climate risk MEL framework to be discussed with key stakeholders of the CHW intervention.

B. District and regional level government agency decision makers should be provided with climate change risk management awareness training. This hands-on training can lead into the development of a district plan for integrating the relevant part of the Tanzania health national adaptation plan into district development planning processes.

ACTION: Irish Embassy and the Irish Aid Learning Platform to support development of training materials and the coordination of training & planning process with district and regional stakeholders.

C. A review of planned and autonomous adaptation actions within the agricultural sector to assess how adaptation can include gender responsive elements that contribute to the reduction of GBV related to the agricultural cycle.

ACTION: Irish Embassy and the Irish Aid Learning Platform to support agricultural adaptation gender responsiveness review.

D. Awareness raising material developed for CHW on the links between climate change risks and health care service effectiveness and links to GBV incidence.

ACTION: Irish Aid Learning Platform to develop the terms of reference for the development of the awareness raising material.