

# MALAYSIA

A Focus on  
Indigenous Communities

## SCOPING STUDY

Building New Constituencies for Women's  
Sexual and Reproductive Health and Rights (SRHR):  
Climate Change and SRHR

**penita**  
GENDER & PEMBANGUNAN Gender & Development

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asian-pacific resource & research  
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## **A Scoping Study : A Focus on Indigenous Communities MALAYSIA**

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PENITA Initiative Malaysia

Asian-Pacific Resource and Research Centre for Women (ARROW)

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10MP	Tenth Malaysia Plan
AIDS	acquired immunodeficiency syndrome
AKP	Adaptation Knowledge Platform
AR5	Fifth Assessment Report
ARROW	Asian-Pacific Resource and Research Centre for Women
BRIMAS	Borneo Resources Institute Sarawak Malaysia
CBN	cost of basic needs
CBR	crude birth rate
CD	communicable disease
CDR	crude death rates
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CLASlite	Carnegie Landsat Analysis System-lite
COAC	Center for Orang Asli Concerns
DID	Department of Irrigation and Drainage, Malaysia
DOS	Department of Statistics
DWD	Department of Women Development
EPU	Economic Planning Unit
FAO	Food and Agriculture Organization
GBD	Global Burden of Disease Study
GDP	Gross Domestic Product
GHG	greenhouse gas
HIV	human immunodeficiency virus
ICPD PoA	International Conference on Population and Development Programme of Action
IHME	Institute for Health Metrics and Evaluation
IPCC	Intergovernmental Panel for Climate Change
JKOASM	Peninsular Malaysia Orang Asli Villages Network <i>Jaringan Kampung Orang Asli Semenanjung Malaysia</i>
KWP	Ministry of Federal Territories <i>Kementerian Wilayah Persekutuan</i>
LE	life expectancy
MDG	Millennium Development Goals
MLDS	Ministry of Land Development Sarawak
MMD	Malaysian Meteorological Department
MOH	Ministry of Health, Malaysia
NACW	National Advisory Council for Women
NAHRIM	National Hydraulic Research Institute of Malaysia
NC2	Second National Communications
NCD	non-communicable disease
NCWFD	National Council on Women and Family Development
NRE	Ministry of Natural Resources and Environment, Malaysia
PFPI	PATH Foundation Philippines Incorporated
PPP	purchasing power parity
SACCESS	Sarawak Access

SADIA	Sarawak Dayak Iban Association
SRHR	sexual and reproductive health and rights
STI	sexual transmitted infections
SUHAKAM	Human Rights Commission of Malaysia
TNC/BUR	Third National Communications/Biennial Update Reporting
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
WHO	World Health Organizations



## EXECUTIVE SUMMARY

This study is part of a project undertaken by PENITA Initiative<sup>1</sup> in partnership with the Asian-Pacific Resource and Research Centre for Women (ARROW). This study investigates the possible linkages and opportunities for action on climate change in connection with sexual and reproductive health and rights (SRHR) in Malaysia with a focus on voices from the indigenous women of Sarawak.

This study begins with the overall review of climate change and SRHR issues in Malaysia. It, then explores how climate change and SRHR impacts indigenous communities with feedbacks from the indigenous women's leaders in Sarawak. The study further seeks to discuss key implication for policy development and potentials for advocacy actions around climate change and SRHR issues.

The study shows that there is a multitude of discourses; for example, how population is linked to degradation, fossil fuel dependence, reducing carbon emissions and natural resource management issues; influence actions around climate change. These discourses influence how the inter-linkages between climate change and SRHR are viewed and acted upon by government and communities. This is significant as it not only seek to analyse what is visible in respect to climate related issues but also the existing historical institutional imbalances, which are generally invisible, that exists to the detriment of women and communities.

The findings affirm there is an inter-linkage between climate change and SRHR. The findings further revealed that the different views impede attention to include SRHR issues into the climate change debates and dialogues and is greatly seen in how disaster planning is advanced. The study highlights the need to enhance community resilience through the recognition of women's leadership and participation. This is significant as the existing institutional imbalances had shown to cloak and making women's needs invisible in the climate change discussions and related actions.

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<sup>1</sup> PENITA Initiative is an initiative working with grassroots women leaders towards advancing issues of environmental stewardship, gender and sustainable development and is the community service component of PENITAJAYA Sdn Bhd, a social enterprise dedicated to enhancing women's leadership.

# INTRODUCTION

Malaysia had ratified the United Nations Framework Convention on Climate Change (UNFCCC) on 13th July 1994 and the Kyoto Protocol on 4th September 2002 (NRE, n.d.). At the national level, Malaysia's Tenth Malaysia Plan (10MP) (EPU, 2011) clearly recognises climate change as a global issue with significant implications for Malaysia. The national adaptation strategy is based on "no-regrets" policy and actions to safeguard resources and reduce impacts in key sectors to protect economic growth and development (EPU, 2011, p. 300). These key areas are water, agriculture, forestry and biodiversity, coastal and marine, energy and transport, as well as public health.

In fulfilment of obligations as a party of the UNFCCC, Malaysia submitted its Initial National Communication in July 2000 and the Second National Communication (NC2) in January 2011. In the NC2, Malaysia has pledged to voluntarily reduce emission intensity of up to 40% based on 2005 levels (NRE, 2011). At present, the focus of Malaysia's Climate Change Policy is mitigation to reduce the emissions of greenhouse gasses (GHGs) (EPU, 2011, p. 300).

Overall, much attention is to improve industrial productivity for both state and national economic development. This clearly shows that the current pathways to development is strongly influenced and are built on cheap fossil fuel based energy resources and large productive lands (Steffen et al., 2011). Although mitigation actions on emission reductions are important, Malaysia's adaptation needs still require greater focus and attention (AKP, 2011). Despite Malaysia recognising climate change as a cross-sector issue, which involves science, nature and economics, poor linkages to human wellbeing persists, thus resulting in neglect especially the inter linkages to SRHR.

Malaysia's adaptation strategy suffers from this disjointed approach. The Intergovernmental Panel on Climate Change (IPCC)'s had warned that "climate change impacts will be differently distributed among different regions, generations, age classes, income groups, occupations and genders" (Cramer et al., 2001, p. 680). This study reinforces that persistent structural inequalities pose greater risks to health care, food, clean water and other resources which are crucial to the enjoyment of one's sexual and reproductive health rights.

Major studies of disaster, risks and climate change highlights the broad impacts of exposure on human population and the population's capacity to respond (Adger & Kelly, 1999; Cutter, Mitchell & Scott, 2000). Based on local research and literature, vulnerability and resilience is differentiated by location and socio-economic circumstances that influences the level of preparedness (Begum et al., 2011). The National Hydraulic Research Institute of Malaysia (NAHRIM) in a comparison of future climate change projections with the 2004 data of hardcore<sup>2</sup> poor found that the Peninsular Malaysia states, in particular Terengganu (4.4%), Kelantan (1.3%), Perlis (1.7%), Kedah (1.3%), and Perak (1.1%), are most vulnerable.

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<sup>2</sup> Notes: The current method used for poverty measurement in Malaysia is based on the cost of basic needs (CBN) method. CBN is based on household utility, if one consumes less than the basic needs the person is defined as poor. (Rasool & Salleh, 2012). However, there is yet a clear definition as to which measurement as often times the poverty line income is being used to measure poverty. The threshold poverty line income, is RM529 in Peninsular Malaysia, RM690 in Sabah and RM600 in Sarawak for an average household size of 4.6, 4.9 and 4.8 respectively. (UNFPA, n.d.)

Meanwhile, the incidence of hardcore poor in Sabah and Sarawak was at 6.5% and 1.1% respectively in comparison to the national hardcore poverty average of 1.2% making the hardcore poor in Sabah and Sarawak greatly vulnerable to climate related circumstances.

These vulnerability due to poverty however is not fully reflected in the new 11<sup>th</sup> Malaysia Plans (2015), although the said 11<sup>th</sup> Malaysia Plans reports that poverty incidences since 1970 to 2014, have reduced from 49.3% to 0.6%.

### **Climate Change Impacts in Malaysia**

By 2050, temperatures in Malaysia are projected to rise in the range of 1.5°C to 2°C. A climate change modeling and projection study indicates a possible increase in inter-annual and intra-seasonal variability with increased hydrologic extremes causing potential flood and water supply problems (UNFCCC, 2012).

Rainfall intensity for the years of 2000 to 2007 as observed by the Malaysian Meteorological Department (MMD) exceeded the previously highest records of years 1971 to 1980. Additionally, intense rainfall in the wet period and longer drought in the dry period is predicted. This is a threat to the increasing urban population as well as inland farming communities and coastal areas (MMD, 2009).

The impact from these changes is seen in the recent floods in Peninsular Malaysia during the period of December 2014 to January 2015 have caused much devastation. One key factor to this is the rainfall in Peninsular Malaysia, amongst others, was reported to be “the highest rainfall in 40 years during the first wave” (Kong, 2015). The situation is further aggravated with the changes in land-use patterns. The impacts from these events are consistent with scholars’ findings on the vulnerability of local climate to anthropogenic or human activities impact on climate change (Steffen et al., 2011).

In the aftermath of such events, scholars found that women suffered the most from the floods, especially the disabled, the pregnant, nursing mothers and single mothers. Generally, women were neglected and not consulted on how to mitigate the effects of the floods (Kamaruddin, 2015).

Another major issue that affects human health in Malaysia is air pollution, in particular the increasing regularity of dense haze. Haze is caused by many sources, from both natural and human activities such as open burning and use of fossil fuels in vehicles and for industries. Haze is defined as the existence of “tiny particulates suspended in the atmosphere. At high concentrations, these particulates scatter and absorb sunlight resulting in diminished horizontal visibility thereby giving the atmosphere a characteristic opalescent appearance” (MMD, n.d.). A study in 2007 reported high emissions contributed by the industrial sectors. In the period of 1993 to 1998, the lowest recorded was 35.2% (1997) and highest was 85.5% (1994). It is important to note that the second highest emitter was the palm oil mills (Abdullah et al., 2007).

In addition to impacts from haze and air pollution, Malaysia is facing increasing water stress due to the upward trend in demand attributed by rapid growth in population and urbanisation. Despite current water facilities operating at full capacities, it was projected

that Malaysia will experience water supply deficit scenarios for 28 (12%) of 240-month duration. These projections were based on rising demands from an estimated growth rate of 5 million (2010) to 7 million (2050), and corresponding increase in water consumption of 300 litres (2010) to 330 litres (2020) per capita per day (NAHRIM, 2006).

## **Objectives**

The study seeks to investigate the possible linkages and opportunities for action on climate change in connection with sexual and reproductive health and rights (SRHR) in Malaysia with a focus on voices from the indigenous women of Sarawak. These discussions illustrates how these perceptions are shaped and if, it supports or undermine women's concerns as well as leadership in climate change issues.

## **Methodology**

The investigation towards the key questions was conducted through interviews, discussions and observation from these activities. The study primarily used secondary data from reports, statistics, social media platforms such blogs and Facebook sites particularly of specialised NGOs. A community consultation was organised in Sarawak with indigenous women leaders to hear the voices of affected communities. Sarawak was chosen as it is one of the states with a high population of indigenous communities with more than 40 sub-ethnic groups whose resilience are at risk from increased vulnerability due to the extensive land-use changes and climate change.

The hypothesis of this scoping study is that issues of knowledge, resilience and vulnerability are gendered by norms in society. This affects the recognition of climate-related issues including the coping strategies of impacted communities. The framework of analysis used is an adaption of the PATH Framework (PFPI, 2015, Figure 2, p.10) developed from D'Agnes and Margoluis (2007, Figure 3, p.23). This framework provides the inter-linkages of population, health, environment and climate change factors, that ultimately affect people's livelihoods, in particular how persistent gender inequalities reduces women's participation in decision making and climate change dialogues. The framework provides insights faced by the participants through their lived experiences. This is important as this process also identifies the entry points for the advocacy needs and priorities for advocacy.

The consultation process brought together 18 women leaders ages between 19 years old to 60 years old from 11 villages including two local NGOs, namely Borneo Resources Institute Sarawak Malaysia (BRIMAS) and Sarawak Dayak Iban Association (SADIA). The duration of focus group discussions were 60 to 90 minutes each. Appendix 1 provides the themes and issues probed and Appendix 2 provides the interview protocols. Discussions were also conducted with government officials and representatives of NGOs using protocols provided in Appendix 3.

## **Challenges and Significance of this Study**

The process of undertaking this scoping study has been challenging. There are a number of limitations experienced in the carrying out this research. These include time constraints, challenges in obtaining interviews and feedback mainly due to the timing of the research, data and information issues. Since the main evidence is from secondary data sources, these challenges were overcome.

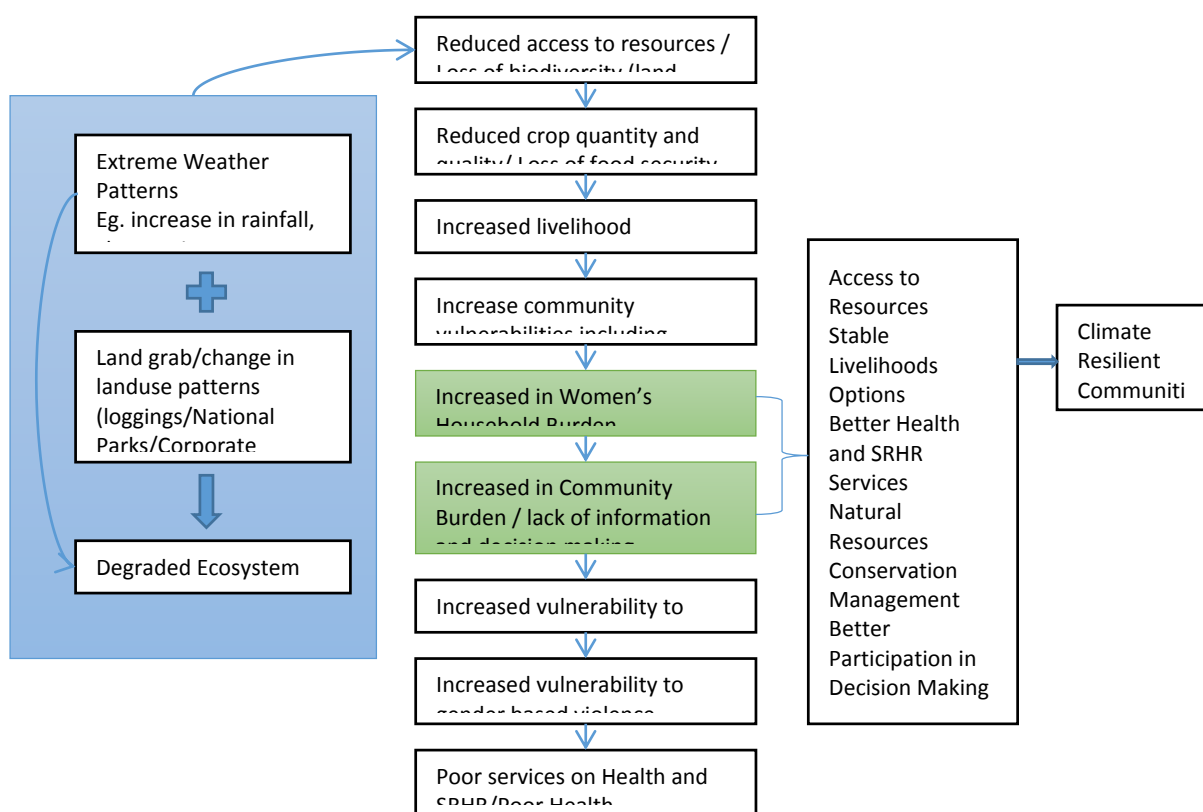
This study was an eye-opener for both the researcher and the consultation participants on the issues of climate change and SRHR. The consultative process undertaken has raised a good level of interest amongst the women in Sarawak to establish an organisation looking at gender, climate change and SRHR. This study is hoped to help fine-tune the strategies undertaken to ensure SRHR is being included into climate change dialogues and decisions.

Secondly, the Project via the Scoping Study process and document will support in bringing together groups focusing on women's issues and environmental issues together. It is hoped that this will create a synergy to promote this issue forward as well as beyond the project. It significantly looks how women can play a leadership role in this process and be part of the decision making processes.

# UNDERSTANDING THE INTERLINKAGES

The study found that there exist inter-linkages between climate change and SRHR. The discussion identified as access to healthcare, environmental degradation, natural disasters, food security, migration and economic impacts as key concerns. In addition, the discourses reflect a shared sense of concern on the lack of gender perspectives in the areas of disaster preparedness, relief efforts, as well as adaptation and mitigation decision-making. The clear outcome of the consultation is a call for clear and coherent information on risks and preparedness.

Figure 1. The PATH Framework showing the Population, Health, Environment and Climate Change Nexus



Source: Adapted from PFPI’s (2015, Figure 2, p.10).

Figure 1 summarizes the findings of this study. Consequently, the discussions surrounding SRHR showed that majority of the participants did not identify SRHR as a priority, as compared to their socio-economic vulnerability. However, they did express that without “food security and proper nutrition, no one can have full enjoyment of their rights”.

The participants discussed the changes they experienced in their locality (mainly rural communities) as seen in crop patterns and production, changes in temperature,

unpredictable weather patterns including longer drought, intense rain and stronger winds. They attributed these changes as a result of the changes in land-use where majority of the forests were turned into plantations and infrastructure development, such as large dams and urbanization.

## Access to Healthcare

The Malaysian healthcare system in general, has been consistently enhanced to meet demographic needs. The IPCC Fifth Assessment Report (AR5) (Smith et al., 2014), suggested “three basic pathways by which climate change affects health” as follows:

- Direct impacts, which relate primarily to changes in the frequency of extreme weather including heat, drought, and heavy rain (Section 11.4);
- Effects mediated through natural systems, for example, disease vectors, water-borne diseases, and air pollution (Section 11.5); and
- Effects heavily mediated by human systems, for example, occupational impacts, under nutrition, and mental stress (Section 11.6).

These pathways relate much to the delivery of healthcare and basic services as voiced by the participants. The Health Facts 2014 as reported by the Ministry of Health states that there is a ratio of 1 doctor for every 633 patients. The state of Sarawak in 2013 has 44% of its 2.57 population in rural areas. Healthcare is predominantly located in urban centres with only 7 out of the 221 public health clinics are in rural areas. The access to basic healthcare services largely remains a challenge in terms of delivery frequency, quality, and urgency.

One participant lamented on the lack of access:

*Participant 1:*

*The nearest health clinic is an hour and 40 minutes away by foot.*

These gaps are not recent. In 2007, the Human Rights Commission of Malaysia (SUHAKAM) in their report entitled *Penan in Ulu Belaga: Right to Land and Socio-Economic Development*, made recommendations which at that time for the Ninth Malaysia Plan 2006 - 2010 to increase allocation for rural health development where specific attention to be given to improve access to healthcare for the Penan community. The reason cited was that there is need for basic healthcare such as proper nutrition and clean water. These are important to ensure that maternal, child and reproductive health is met.

Additionally, in the recent 2014/2015 flood disaster in the eastern coastal regions in the states of Kelantan and Pahang in particular for the indigenous communities highlighted “hidden inequities in access to healthcare, for example for the urban poor, Orang Asli, ethnic minorities in Sabah and Sarawak” (WHO, 2010, p. 26.)

The main healthcare provider is the Ministry of Health Malaysia (MOH). In general, the health indicators as reported seem positive. Life expectancy (LE) for the year 2013 is estimated for males at 72.5 and females at 77.1 years (DOS, 2013). In 2012, infant mortality rate was at 6.3, perinatal mortality rate at 7.4 and toddler mortality rate at 0.4, per 1,000 live births respectively. In addition, the maternal mortality ratio remains low at 25.6 per 100,000 live births (MOH, 2014). In Southeast Asia, Malaysia's children under the age of five had the lowest probability of death in 2013 (Lancet, 2014).

## Urban Scenario

In several studies conducted in the area of urbanization and health access, that despite actual access to health services or perception of the quality of these health services, it was noted that the rapid growth of urban population comes with great challenges. Poverty increases the vulnerability of urban poor. UNICEF reports that “almost 40% of children under 15 years of age living in poverty in urban areas” (UNICEF Malaysia, n.d.). In order to abate these gaps, 1Malaysia Clinics are being established in semi-urban and urban areas to meet these needs.

A study on Orang Asli Seletar women and communities (Yahaya et al., 2015) entitled **Socio-Economic Transformation of the Orang Asli Seletar (Kg Bakar Batu, Kg Sungai Temun And Kg Simpang Arang) (forthcoming publication by UKM)** who settled along the Tebrau coasts of Johor Bharu show evidence of 90% urban poverty among the Seletar communities (n= 320). This is a case of poverty amidst, Johor Bharu as a “rich” and well-developed city. The Seletar community revealed “unequal accessibility” to modern medication due to the traditional mind set of the Seletar people and the marginalization of the community. In focus group discussions among Seletar men and women as well as youths, health services (visits to clinics, hospitals, reproductive health services) are available and well-used by the younger generation (30 years and below). However, the middle aged and older generations preferred their own traditional (herbal) medication to cure diseases, which they continue to practice until today.

One middle-aged participant declared, “yes, I go to the clinic and the doctor ... gave me medication. I brought home but I don't take the medicine ... I have our own concoctions ... really no point going to the clinic ...”.

These examples highlights the complexities of “mind set”, perception and preference of Orang Asli throughout the nation and among low educated rural communities who prefer traditional to modern medication. As indicated in many studies, many women have assumed the role of “Guardian of Traditions” while carry-on their function as carers, hence the increase burden in their reproductive role.

The establishment of 1Malaysia clinics seeks to increase accessibility and address the “mind sets” of urban population, in particular vulnerable groups. The MOH's Country Health Plan 2011 - 2015 reports that despite the growth and significant contribution of the private sector in national healthcare delivery, challenges remain in reporting communicable diseases. Outbreak response and reporting have not been strong and sufficient; in



particular, timely reporting of sexual transmitted infections (STI) and dengue (MOH, n.d., p. 17).

## Disaster Preparedness

The hidden inequalities further widen the access to health services during disasters. In the consultation, it was stated that there are gaps in planning, delivery and mitigating. The information shared by the Center for Orang Asli Concerns (COAC) highlighted the failure of proper disaster planning and implementation in reporting the impacts of the recent December 2014 to January 2015 floods. This shows an urgency to undertake research / fact finding missions and a comprehensive review of health services in disaster preparedness.

In a posting on COAC Facebook<sup>3</sup> on January 1, 2015, it was reported that the “village of Kampung Bantal @ Serau was totally cut off by road when the waters rose at Christmas. One expectant mother was so distressed by the impending danger that she delivered her child while the people were still trying to put up the temporary shelter. There was no midwife around but the others were able to ensure that Wak Kenik delivered her first-born safely.”



Picture courtesy of COAC

This shows that in the event of natural disasters, the remote communities often receive delayed, if at all, basic health services. The lack of disaster plans results is grave. COAC reported that due to lack of clean water supply coupled with delays in basic health services, a 15 month child in Kampung Perawas-Pos Balar died of severe diarrhoea. COAC in their collective effort with the UNITED SIKHS that facilitated 8 teams of doctors and volunteers over 2 days (15 & 16 January 2015), “attended to, or treated, at least 1,000 Temiars, both young and old. Main illnesses were fevers, severe coughs, rashes, diarrhoea and other water-borne diseases” (COAC, 2015).

This highlights the reduced resilience of these indigenous communities based on the feedback from the discussion in Sarawak where environmental degradation as well as reduced access to natural resources affects communities living in the interiors fend for their own.

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<sup>3</sup> <https://www.facebook.com/notes/center-for-orang-asli-concerns-coac/semai-mother-delivers-firstborn-while-fleeing-the-flood/855555781155016>

Deforestation leads to increased flooding intensity in river basins, causes the loss of human lives, as well as the destruction of homes, crops, livestock, properties and public infrastructures such as roads, schools and bridges. The community is this disconnected to important resources and services such as healthcare and livelihoods options when such access is hindered. Women's negotiating power within the household and the community are undermined and subjugated by the limited off-farm economic alternatives. For example, economic activities like weaving are increasingly difficult due to lack of natural fibres.

Another implicit link between climate change and women's productive and reproductive roles, is as a consequence of monoculture plantation economies that dominate deforested lands. Monoculture plantation economies tend to reinforce existing gender inequalities because of gender differentiated access to land and division of labour (Yong, SACCESS, & JKOASM, p. 57). For example, women tend to use land resources differently than men with subsistence farming.

The feedbacks from the consultation highlighted the frustration of the women leaders on barriers to participate in decision-making processes. Not only women's needs and perspective are neglected, it also reduces the ability of the local communities to secure food, clean water and livelihood.

Therefore it is critical that disaster preparedness is conducted with gender lens and using gender methodology to ensure and increase community resilience through the participation of all members of the community.

## **Environmental Degradation**

Numerous studies validated by the consultation provided insights as to how environmental degradation impacts essential resources such as water, land and forests, and how these in turn implicitly impact SRHR. In Malaysia's NC2, the focus on reporting health issues concentrated on communicable diseases such as vector-borne diseases, such as malaria, dengue and water-borne diseases like diarrhoea (NRE, 2011). The NC2 appraises that although there are "several modes of transmission for diarrhoeal diseases which include food, water, insect and contact with infected person", these incidences are "greatly influenced by the level of sanitation and the availability of clean water supply" (NRE, 2011, p. 60). It was further linked to climate change as an issue of water availability during times of drought and rainfall runoff that contaminates clean water supply. In the consultation, the information is narrated as follows:

*Participant 2:*

*Before 2014 we do not have piped water. Water is polluted by paper mill at the area. In August 2014, the government built water pipes but there is no water in the taps. When we inquire, we were informed that the filter was faulty and there are no more funds to replace this filter. The Department of Health and also the Department of Environment has tested the water in the area and it is not fit for drinking.*

*Participant 3:*

*We experience pollution of river water. There are instances of poisoning (keracunan).*

Human-driven activities such as excessive land clearing, logging and other changes to land-usage are factors that influence the quality of water at all times. The 2014 - 2015 year end flooding in the east coast of Peninsular Malaysia can be attributed to five man-made and natural causes. These are: unusually heavy rainfall in the water catchment areas upstream; the low water-holding capacity of the lower Sungai Kelantan; excessive logging and land-clearing; sediment build-up of rivers; and the large amount of mud and debris carried by the flood water, adding to its volume (Kong, 2015).

*Participant 4:*

*Before we had hills, now it's flatten by plantation companies.*

These feedbacks illustrate how weak the consultative and planning process in land use matters. This emphasises how gender power dynamics of rural communities and decision makers interplay at the detriment of local communities.

Reports have also evidenced deforestation as an implicit catalyst impacting SRHR for the indigenous communities. According to the *Deforestation Drivers and Human Rights in Malaysia* (Yong, SACCESS, & JKOASM, 2014) report, the onset of deforestation swiftly destroys and depletes the resource base (forest, land and water) for livelihoods and food security, women and families become vulnerable due to their traditional and direct dependency on forest ecosystems. This vulnerability affects nutrition and income provision for the women and her family.

A case study in the *Deforestation Drivers and Human Rights in Malaysia* (Yong, SACCESS & JKOASM, 2014) report provided evidence of similar issues faced in the Peninsular based Indigenous communities. In Kampung Sebir, the land issue involves industrial encroachment onto their customary land and traditional territories. These lands provide food and medicinal resources, and the subsequent loss has impacted women's reproductive health, especially essential medicinal plants to help women recover from childbirth (Yong, SACCESS & JKOASM, 2014, p. 84)

This finding is similar to the consultation surrounding the lost of forest and food sources. In summary, the feedbacks from the participants points to the fact that there is a feeling of loss of spirit as well as identity as people of the forest on one's own land, especially that they have limited access to the resources needed for their living and food. The cultural practice of collecting from the forest, is increasingly a challenge with depleting natural resources, encroachment of other communities including poachers on the natural resources like fish and game and also the regulatory measures with new policies which are not well understood by the local community due to the lack of consultative processes involved in making these policies.

In a study on the indigenous Seletar community (known as sea gypsies), now settled in the vicinity of Johor Bharu where the land development in Iskandar Development Zone result in silting up of rivers and water pollution, has said to push the Seletar further into open ocean to seek for food (Yahya et al., 2016, forthcoming publication UKM)

It was generally felt that the deforestation and development plans did not take into consideration the different needs of men and women in the affected communities. The climate change impacts as a result of this local biodiversity disruptions, reduces the ability of the communities, in particular the women in their reproductive role to ensure food and nutrition for the family. This inability impacts SRHR. These vulnerabilities are as a results of low crop yields, polluted rivers, having to go further to source food from natural resources and deforestation.

## **Heat, Drought and SRHR**

Impacts of climate changes are felt through the increase of temperature and the duration of drought. It has been projected that by 2050, Malaysia's temperature would rise up to 1.5°C (UNFCCC, 2012). The dangers of drought were felt in 1998 when areas like the Klang Valley and Langat basins suffered severe drought (Suhaily, Ngah & Othman, 2011). The Malaysian Department of Irrigation and Drainage (DID) initiated a drought-monitoring programme in 2001 through the website "infokemarau.water.gov.my". This shows the nexus of rainfall and water demands of the population. The increase demand due to urbanisation and increase in consumption patterns where typically Malaysian urban consumers use 200 litres of water a day (Suhaily, Ngah & Othman, 2011, p. 119). The drought situation further intensified with incidences of haze. News reports like "Smoke from forest and peat-soil fires drove air quality to unhealthy levels in and around Malaysia's capital of Kuala Lumpur today, adding to the burden of water rationing after a month-long drought." (Chong & Ramasamy, 2014) nails the situation both at urban and rural areas.

Currently in Malaysia, there is lack of research, literature and reports on the vulnerabilities of women urban poor from the impacts of climate change, in particular during incidences of haze, forest fires and drought. Water rationing results in additional burden on women as it is still perceived as their reproductive roles. Residing in high rise community flats means women had to collect and carry water from water trucks delivering at pre-determined schedule. There is limited study to understand the state of vulnerabilities dues to these changes in living patterns.

## Food Security and SRHR

The participants at the consultation identified that the loss of food security as a result of changes in crop patterns and production. For example, they found that their hill rice yields are dwindling and fish stocks are reducing due to pollution as a result of land use changes for plantations and infrastructure development. Some of the observable impacts are changes in temperature, unpredictable weather patterns including increasing intensities as seen in longer drought, intense rain and stronger winds. The indigenous women leaders relate that these changes impact their health quality and quality of life.

*Participant 5:*

*Before we were free to plant. Now this is limited and we have no place to find food. (Dulu Orang Asal bebas bercucuk-tanam. Sekarang sudah terhad tiada tempat cari makan lagi).*

*Participant 6:*

*The forests are our supermarket.  
(Hutan umpama supermarket bagi kami, Orang Asal).*

*Participant 7:*

*Our crops are eaten by insects.  
(Tanaman habis dimakan ulat).*

*Participant 8:*

*Without proper nutrition, how can one enjoy their sexual and reproductive rights?*

These discussions highlight the gender differences between the women and men. The differences are as in access to property rights, control of such property rights, access to information, access to decision making as well as the differing socio-economic roles.

For example, the participants shared that women's participation and needs are rarely seen as a priority in the land rights struggles. This feedback illustrates how limited negotiation power is within the communities and the gendered institutional structures that inhibit women's the full enjoyment of their rights. The issue of land right is so complex as seen during the discussions of the focus group where the issue not only for the right to the land itself but also the right to participate on decisions pertaining to the land. For example, one participant informed that although land rights were given to them, the land had already been deforested. Therefore the natural resource is lost.

It is further noted when seeking to link food security to SRHR, the participants' felt uneasy. SRHR matters is still viewed as a private matter and some feared that advocating this will diminish their participation in the decision making process. Many felt that pursuing SRHR would emphasis that women are weakness and vulnerable. However, they do not deny the food security is important in ensuring good health.

## Contestations, Migration and SRHR

The participants consider land rights, food security and decision-making as issues of conflicts in identity. They discussed how the challenges of livelihood and access to basic infrastructure such as healthcare and education have driven many members of their communities to migrate to urban centres. These urban migration experiences were described as divorces and women's promiscuity in the group discussions. The discussions further centred on the loss of cultural identity and break-up of families.

*Participant 9:*

*The changes we witness are women leaving husbands (particularly husbands working off-shore) when they move to towns. Maybe they want more freedom.*

This reaction reinforces that reproductive health and sexual rights are private and if spoken is seen in the setting of social and cultural identity. *The Working Group on Sexual and Reproductive Health and Rights 2014 Background Document* quoted the work of Cook et al. (2003) stating that reproductive health is central to 'social and cultural' identity. This phenomenon is "institutionalized by culture and leaders, strong norms for reproductive behaviour and values attribute fertility and faithfulness as ideal female characteristics" (Tellier & Lund, 2014, p. 44). It illustrated how "closely related to gender, to personal relations, to human rights, and to the role of those rights in inter-personal relations, among not only two, but potentially three people – mother, father, child" (Tellier & Lund, 2014, p. 44), thus observing the tendency of politics intruding on the health response to reproductive health. The global debate on climate change revolves around the issue of population growth and resource scarcity. This debate unfortunately is devoid of recognition of SRHR.

In the *Deforestation Drivers and Human Rights in Malaysia*, it was reported that the national deforestation rate is alarming where Malaysia has ranked as the world's highest, at 14.4% in the years 2000 to 2012 (Yong, SACCESS & JKOASM, 2014, p. 9). This amounts to a loss of dense forest with the size of 4.5 million hectares. In 2013, deforestation reportedly has increased at 115% during the first three months of the year (Sukumaran, 2013).

The World Bank's Malaysia Economic Monitor 2013 (Sander et al., 2013) indicated that the increase in deforestation rate was attributed by the expansion of palm oil plantations. The report states that "palm oil industry expanded, the industry has drawn scrutiny on issues concerning climate change, biodiversity conservation and improving the livelihoods of poor farmers in rural communities. An evaluation by the Food and Agriculture Organization (FAO) in 2005 on land cover data revealed that between 1990 to 2005, approximately 55–59 % of oil palm expansion in Malaysia (0.83 – 1.1 million ha) ... at the expense of natural forest cover (Koh and Wilcove 2008)." (Sander et al., 2013, p. 60)

In another study on deforestation, the research team using high-resolution satellite imaging of the Carnegie Landsat Analysis System-lite (CLASlite) observed that more than 80% of tropical forests in the Sabah and Sarawak have been heavily impacted by logging (Bryan et al., 2013). Sarawak was revealed to be greatly impacted by such changes in land-use with

3% of land area in Sarawak remains covered by intact forests in designated protected areas (Bryan et al., 2013).

In the *Deforestation Drivers and Human Rights in Malaysia* (Yong, SACCESS & JKOASM, 2014, p. 68), it was found that the Penan women and girls (as young as 10 years old) in the Middle and Ulu Baram regions were suffering from sexual violence and exploitation, including rape and domestic violence, by timber workers as a result of this deforestation process. Further investigations found that the vulnerability was caused by deforestation that had left them with limited and risky travel options, that is between using logging company vehicles (thus increasing contact with timber workers) and by foot through deforested lands (which prove a difficult journey).

It is clear that SRHR is an important priority for climate change dialogue and action. How these changes in land-use patterns would affect the capacity of the nation to adapt to the changing climate patterns as well as the coping strategies is a point yet to be determined. Many initiatives are taken to address biodiversity needs, natural resource management and such but these initiatives still remain isolated and not taken comprehensively. In all these initiatives, SRHR is not a priority.

## POLICY GAPS AND POTENTIALS

The participants at the consultation highlighted several priorities that need to be addressed to improve their SRHR. Their focus is on building resilience to deal with changes in their local environment. The emphasis is to rebuild the capacity of the natural environmental system to protect the local communities from extreme weather patterns. This approach will also buffer from other shocks like financial risks as seen in reduction in capability to create a sustainable livelihood which is interwoven within their socio-ecological contexts. Scientists like Professor Carl Folke, Scientific Director at the Stockholm Resilience Center explains that “the challenge of climate change is closely linked to the capacity of ecosystems worldwide to generate services and the wellbeing of the economy rests on this capacity” (Walker et. al, 2009).

These priorities as discussed looks at land rights in particular the Native Customary Rights<sup>4</sup> issues; rehabilitation of forests to before where there are forest resources that enables them to engage handicraft, wood for building of homes/canoes and traditional food source; no large scale plantations and logging as there is little forest left; and revisit development of large-scale infra-structure projects like dams.

### Closing the Gaps at Policy Level

There is an urgent need for climate change research to examine the impact on people and communities with a focus on SRHR. Sex disaggregated data that situates climate change, adaptation and mitigation with the communities and in particular SRHR in Malaysia is important but is still found lagging (Begum et al., 2011). Local climate based research and advocacy is generally conducted with scientific lens ranging from land-use impact, biodiversity changes, projection of weather patterns and other scientific based approaches. Communities tend to be looked upon as anthropogenic (human) disturbances rather than an active stakeholder that supports the sustainability of natural resources. This prevailing attitude is deeply entrenched in the governance structures and inhibits analysis towards sustainable development and leaning more to a welfare or charity mind-set in adaptation and mitigation efforts rather than creating resilience. This mentality does not support gender equality and recognition of women as actors.

Additionally, gender responsiveness in climate change adaptation and mitigation is important due to the different roles, responsibility and decision-making power. Gender responsiveness brings the recognition that men and women are not homogenous groups. In fact, each individual is influenced by age, ethnicity, locality, education and income. Therefore, any solutions towards adapting to climate change need to take a closer look at the lived lives of women, men, girls and boys.

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<sup>4</sup> The Ministry of Land Development Sarawak (MLDS) defines Native Customary Rights as “rights acquired by the landowners in the manner set out in section 5 (2) of the Land Code. Sec. 5 (2) of the Land Code defines "Native Customary Land" as: (a) Land in which native customary rights, whether communal or otherwise, have lawfully been created prior to the 1st day of January 1958 and still subsist as such; (b) Land from time to time comprised in a reserve to which section 6 applies, and (c) Interior Area Land upon which native customary rights have been lawfully created pursuant to a permit under section 10. (MLDS, n.d.).



This gender responsiveness aids the design of adaptation and mitigation plans. Adaptation plan, which are gender responsive, can potentially reduce gender disparity by providing mechanisms for women to gain resource within include tenure to forestlands for their livelihoods and subsistence. This supports a gender balance participation in adaptation relate decision–making. Gender is already recognised as one of the safeguards to climate change adaptation and mitigation by the UNFCCC.

The main arguments for integration of gender in national planning including climate change adaptation and mitigation is one based on right and is supported by UNFCCC including the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and for the indigenous communities the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

The review of policy documents and related documents showed that the climate change matters are very technical and science-oriented. The policies in such context were made in gender-neutral manner. Given that Malaysia has embraced the outcome based budgeting which integrates gender responsiveness planning processes, Malaysia can provide leadership towards more gender responsiveness. The following table sets the review on the gaps identified within policy matters and potential entry points for advocacy.

Table 1. Policy Gaps and Potential Entry Points

Policies	Potential Entry Points
1 Third National Communications UNFCCC	<p>The Ministry of Natural Resources and Environment (NRE) has decided that the 1st Biennial Update Reports (BUR) shall be submitted to the UNFCCC by December 2015 and the Third National Communication (TNC) and 2nd BUR shall be submitted to the UNFCCC by December 2017.</p> <p>In the previous 2<sup>nd</sup> Communiqué, a priority of research on the climate change agenda has been identified. Item 4.7.7 highlights the need to understand all socio economic impacts and vulnerabilities.</p> <p>This provides an entry point to include a SRHR focus into climate change adaptation plans.</p>
2 11 <sup>th</sup> Malaysian Plan	<p>To advocated for targeted mechanisms to provide quality and efficient social safety net for vulnerable groups, with focus on SRHR and climate change. Community groups should play a greater role in advocating this focus.</p>
3 National Steering Committee on Climate Change	<p>A comprehensive and cross-sectoral representation by related Ministries should be undertaken. For example, including the Ministry of Health (whose current role as implementer of</p>

	public health services) and the Ministry of Women, Family and Community Development (also another implementer for social welfare and community development.)
<b>4</b> National Adaptation Programme	<p>The emerging issues are that vulnerability assessments should be localized. Potential to advocate for clearer sex disaggregated data, reproductive health-related, maternity-related and elderly well-being assessments.</p> <p>Further advocacy to include gender analysis and health impact analysis is also needed.</p>
<b>5</b> Prevention and Control of Infectious Diseases Act 1988, Notification Regulation (2006)	<p>This act provides for mandated reporting of communicable and water-borne diseases.</p> <p>Potential to advocate for gender-related and maternity-related assessments and explicit quantitative data with correlations to climate related impacts.</p>
<b>6</b> Towards Safer Motherhood, MOH	<p>Potential to advocate for maternity-related assessment and data with a focus on climate change impacts. Here also entry point to ensure that stakeholder analyses, livelihood analysis and also access to health services are better integrated.</p>
<b>7</b> Malaysia CEDAW Implementation	<p>There is a need to promote that climate change &amp; SRHR is given priority in the CEDAW reports. This will help promote the inclusion of gender and SRHR into the climate change debate, discussions and actions of the country.</p> <p>This process is also critical as an entry point to advocate within the civil society the importance of SRHR.</p>

The need to close gaps between national/federal level priorities to state levels and down to the community levels signals a Federal/State dilemma. The Federal/State dilemma greatly influences the implementation and sustainability of mitigation and adaptation plans at the local levels where land tenure matters are within the purview of the States. This impacts decision-making and coordinating capacities at times of ecological crises. As witnessed, in the recent flood situation of East Coast Malaysia, crisis management was marred with the blame game and red-tapes. This does not support disaster recovery plans and rescue efforts.

## CONCLUSION

There is an urgent need to include SRHR issues into the climate change debates and dialogues, in particular the adaptation plans. There is a need to understand impacts of climate change and how it increases the vulnerability of women and men.

There is need for gender analysis, careful stakeholder identification, analysis and participation of all parties including women in livelihood assessments. The focus to enhance community disaster preparedness and resilience is important with recognition of women's participation and leadership. It is here that government institutions need to ensure that adequate funds are allocated. This includes provisions to support the enjoyment of SRHR of the women and the community, recognising special vulnerabilities faced by women during pregnancies or breastfeeding are given attention and focus to understand the patterns of mobility. A gender responsive approach with respect to attitudes on risk, behaviour and attitudes be addressed with focus on security issues for gender based violence and exploitation.

The discussion shows that women's participation in decision-making must be core to any adaptation plans and also development plans. This will help recognise different gendered needs and interest, for example, proper valuation of work including care work. In order to do so, there is need to ensure proper, transparent information.

There is need to call for more research on linking SRHR and social issues into climate change research agenda. There is also need to undertake research to understand the gendered access to early warning systems. For example, the gendered access to information and technology. Importantly, sex disaggregated data with insights to locality, ethnicity, age and income should be continuously practiced.

The process of this study exhibits to how these gendered differences influence climate change impacts are identified and problematic as well as how adaptive solutions are designed. In the discussions and literature, climate change impacts on communities are evidenced by the increase vulnerabilities in food security, fresh water supply, access to universal healthcare, access to proper settlement and access to adequate as well as affordable infrastructure. All these signal the importance of including SRHR into climate change discussions and decisions.

## RECOMMENDATIONS & ADVOCACY

The Scoping study highlights several key recommendations.

1. Ensure gender responsive governance by applying gender methods such as gender analysis, careful stakeholder identification, livelihood assessments and gender budgeting.
2. Recognise women's leadership by allocating adequate funds to enhance community disaster preparedness and resilience.
3. Recognise special vulnerabilities faced by women during pregnancies or breastfeeding, by including provisions to support SRHR of women with attention and focus on understanding vulnerability such as issues of mobility.
4. Support more research on SRHR and social issues within the national climate change research agenda. There should be increased promotion to understand the gendered access, for example, to early warning systems or issues surrounding adaptation and mitigation. There were not raised in this scoping study but are pertinent issues which lack voices and participation of women of this nation.
5. Importantly, there is need to establish accurate, accessible and timely sex-disaggregated data for climate issues, demographic, health and other socio-economic insights which is greatly needed to allow for greater depth and insights on this growing issue of concern. Without these data sets, there is limited ability to conduct gender analysis to inform policy development and implementation.

These strategies are important to position the Nation to achieve an ecologically sustainable development meeting the set targets for Sustainable Development Goals as well as our climate action commitments.

## LIST OF REFERENCES

- Abdullah, L. C., Wong, L. L., Saari, M., Salmiaton, A., & Rashid, M. A. (2007). Particulate matter dispersion and haze occurrence potential studies at a local palm oil mill. *International Journal of Environmental Science & Technology*, 4(2), 271-278.
- Adaptation Knowledge Platform (AKP). (October 2011). *Scoping assessment on climate change adaptation in Malaysia*. Bangkok: Solar, R. W. Retrieved 6 April 2015, from <http://www.climateadapt.asia/upload/publications/files/4f27b1074e7aeMalaysia.pdf>
- Adger, W., & Kelly, P. M. (1999). Social vulnerability to climate change and the architecture of entitlements. *Mitigation and Adaptation Strategies for Global Change*, 4, 253-266.
- Ali, O., Isa, Z. M., & Rahman, M. R. A. (2004). The effect of urbanization on the health of urban residents. *Akademika*, 65, 111-124.
- Bryan, J. E., Shearman, P.L., Asner, G.P., Knapp, D.E., Aoro, G., et al. (2013). Extreme differences in forest degradation in Borneo: Comparing practices in Sarawak, Sabah, and Brunei. *PLoS ONE* 8(7):e69679. doi:10.1371/journal.pone.0069679.
- Center for Orang Asli Concerns (COAC). (1 January 2015). Semai mother delivers firstborn while fleeing the flood. Report posted to <https://www.facebook.com/notes/center-for-orang-asli-concerns-coac/semai-mother-delivers-firstborn-while-fleeing-the-flood/855555781155016>
- Center for Orang Asli Concerns (COAC). (18 January 2015). The Temiar situation in Kuala Betis. Report posted to <https://www.facebook.com/notes/center-for-orang-asli-concerns-coac/the-temiar-situation-in-kuala-betis/866209906756270>
- Chong, P. K., & Ramasamy, Manirajan. (4 March 2014). Haze shrouds Malaysia's capital amid forest fires and drought. *Bloomberg*. Retrieved on 6 April 2015, from <http://www.bloomberg.com/news/articles/2014-03-04/haze-shrouds-malaysia-s-capital-amid-forest-fires-and-drought>
- Cook, R., Dickens, B., & Fathalla, M. (2003). *Reproductive health and human rights: Integrating medicine, ethics, and law*. Oxford: Clarendon Press.
- Cramer, W., Holten, J.I., Kaczmarek, Z., Martens, P., Nicholls, R.J., Öquist, et al. (2001). *Chapter 13 on Europe*. In de Seixas, M.J. and Kellomäki, S. (Eds.), *Climate change 2001: Impacts, adaptation, and vulnerability* (pp.643-681). Contribution of Working Group II to the Third Assessment Report (AR3) of the Intergovernmental Panel on Climate Change. Cambridge University Press. Retrieved 6 April 2015, from <https://www.ipcc.ch/ipccreports/tar/wg2/pdf/wg2TARchap13.pdf>

- Cutter, S. L., Mitchell, J. T., & Scott, M. S. (2000). Revealing the vulnerability of people and places: A case study of Georgetown County, South Carolina. *Annals of the Association of American Geographers*, 90(4), 713-737.
- D' Agnes, Leona, and Margoluis, Cheryl. (2007). Integrating population, health and environment (PHE) projects: A programming manual. The publication was produced for review by the United States Agency for International Development (USAID). Figure 3, p. 23. Retrieved 26 May 2015, from [http://www.ehproject.org/PDF/phe/phe-usaid\\_programming\\_manual2007.pdf](http://www.ehproject.org/PDF/phe/phe-usaid_programming_manual2007.pdf)
- Department of Statistics (DOS). (2010). *Population distribution and basic demographic characteristic report 2010* (Updated: 05/08/2011). Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Department of Statistics (DOS). (2013). *Malaysia @ a glance*. Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Department of Statistics (DOS). (2013b). *Population projection Malaysia 2010 – 2040* (Updated: 18/01/2013). Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Department of Statistics (DOS). (2014). *Malaysia @ a glance*. Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Department of Statistics (DOS). (2014b). *Report of household income and basic amenities survey 2014*. Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Department of Statistics (DOS). (2015). *Household income survey 2012*. Retrieved 6 April 2015, from <http://www.statistics.gov.my>.
- Economic Planning Unit (EPU). (2011). *Tenth Malaysia plan 2011-2015*. Economic Planning Unit, Prime Minister's Department. Retrieved 6 April 2015, from <http://www.epu.gov.my>
- Economic Planning Unit (EPU). (2013). *The Malaysian economy in figures 2013*. Retrieved 6 April 2015, from <http://www.epu.gov.my>
- Economic Planning Unit (EPU). (2015). *Eleventh Malaysia plan 2016-2020*. Economic Planning Unit, Prime Minister's Department. Retrieved 6 April 2015, from <http://www.epu.gov.my>
- Human Rights Commission of Malaysia (SUHAKAM). (2007). *Penan in Ulu Belaga: Right to land and socio-economic development*. Retrieved 6 April 2015, from <http://www.suhakam.org.my/wp-content/uploads/2013/12/Report-On-Penan-In-Ulu-Belaga.pdf>

- Institute for Health Metrics and Evaluation (IHME). (2014). *GBD Database*. Seattle, WA: IHME, University of Washington. Retrieved 6 April 2015, from <http://www.healthdata.org/search-gbd-data?s=Tension-type%20headache>.
- Kamaruddin, S. B. (23 January 2015). Women bore the brunt of flood disasters. *UKM News Portal*. Retrieved 6 April 2015, from <http://www.ukm.my/news/index.php/en/extras/2004-women-bore-the-brunt-of-flood-disasters-.html>
- Kong, S. H. (20 January, 2015). Engineer identifies 5 causes of massive floods. *The Sun Daily*. Retrieved 6 April 2015, from <http://www.thesundaily.my/news/1301048>
- Lee, Patrick. (2015). Research body: Rising sea levels to lead to inundated coasts in future. *The Star Publications*. Retrieved 6 April 2015, from <http://www.thestar.com.my/News/Nation/2015/02/04/Floods-will-only-get-worse/>
- Loh, Ivan, Chan, L. L., & Tan, Y. L. (6 November, 2014). Heavy rains cause mud floods in Camerons, one dead. *The Star Publications*. Retrieved 6 April 2015, from <http://www.thestar.com.my/News/Nation/2014/11/06/Mud-flood-camerons/>
- Malaysian Meteorological Department (MMD). (n.d.). *Haze*. Retrieved 6 April 2015, from [http://www.met.gov.my/index.php?option=com\\_content&task=view&id=70&Itemid=160](http://www.met.gov.my/index.php?option=com_content&task=view&id=70&Itemid=160)
- Malaysian Meteorological Department (MMD). (2009). *Scientific report: Climate change scenarios for Malaysia 2001-2090*. Retrieved 6 April 2015, from [https://unfccc.int/files/adaptation/application/pdf/info\\_sheet\\_malaysia.pdf](https://unfccc.int/files/adaptation/application/pdf/info_sheet_malaysia.pdf)
- Ministry of Natural Resources and Environment (NRE). (2011). *Malaysia Second National Communication (NC2)*. Prepared for the United Nations Framework Convention on Climate Change. Retrieved 6 April 2015, from <http://unfccc.int/resource/docs/natc/malnc2.pdf>
- Ministry of Federal Territories and Urban Wellbeing (KWP). (2010). *Overview: Greater Kuala Lumpur/Klang Valley*. Retrieved 6 April 2015, from <http://app.kwpkb.gov.my/greaterklkv/overview/>
- Ministry of Health (MOH). (n.d.). *Country health plan: Tenth Malaysia plan 2011 -2015*. Retrieved 6 April 2015, from [http://www.moh.gov.my/images/gallery/Report/Country\\_health.pdf](http://www.moh.gov.my/images/gallery/Report/Country_health.pdf)
- Ministry of Health (MOH). (2014). *Health Facts 2014*. Retrieved 6 April 2015, from <http://www.moh.gov.my/images/gallery/publications/HEALTH FACTS 2014.pdf>
- Ministry of Land Development Sarawak (MLDS). (n.d.). *New concept of development on NCR land*. Retrieved 6 April 2015, from [http://www.mlds.sarawak.gov.my/modules/web/page\\_print.php?id=62](http://www.mlds.sarawak.gov.my/modules/web/page_print.php?id=62)

- Ministry of Natural Resources and Environment (NRE). (n.d.). *Third national communication (TNC)/Biennial update report (BUR) for Malaysia*. Retrieved 6 April 2015, from <http://www.nre.gov.my/sites/TNC-BUR/Pages/default.aspx>
- Murray, C. J. L. (2014). Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 385, 117-171. Retrieved 6 April 2015, from [http://dx.doi.org/10.1016/S0140-6736\(14\)61682-2](http://dx.doi.org/10.1016/S0140-6736(14)61682-2)
- National Hydraulic Research Institute of Malaysia (NAHRIM). (2006). *Study of the impact of climate change on the hydrologic regimes and water resources of Peninsular Malaysia – Final Report*. September 2006. National Hydraulic Research Institute of Malaysia (NAHRIM), Ministry of Natural Resources and Environment.
- Nik Anis, Mazwan. (8 April 2015). Blueprint maps out academic success. *The Star Publications*. Retrieved 8 April 2015, from <http://www.thestar.com.my/News/Nation/2015/04/08/Blueprint-maps-out-academic-success-Use-education-for-the-common-good-of-the-people-Najib-tells-grad/>
- PATH Foundation Philippines Incorporated (PFPI). (2015). *A scoping study on women and fishers in the Philippines (2015)*. This draft report was reviewed by the Asian-Pacific Resource & Research Centre for Women (ARROW) for the Building New Constituencies for Women's SRHR: Climate Change and SRHR Project. Figure 2, p. 10.
- Rasool, M. S. A., & Salleh, A. M. (2012). Statistical data for appropriate poverty measurements and policy for eradication: A Malaysian case. In *National Statistics Conference (MyStats 2012), 7 December 2012*, pp. 105-112. Retrieved 6 April 2015, from [http://www.bnm.gov.my/documents/2012/MyStats\\_2012\\_Proceedings.pdf](http://www.bnm.gov.my/documents/2012/MyStats_2012_Proceedings.pdf)
- Sarawak Government. (2010). *Sarawak population*. Retrieved March 15, 2015, from [http://www.sarawak.gov.my/web/home/article\\_view/240/175/](http://www.sarawak.gov.my/web/home/article_view/240/175/)
- Sander, F. G., Jalil, I. N., Ali, R., Lathapipat, D., Jithitikulchai, T., Taglioni, D., et al. (2013). *Malaysia economic monitor: High-performing education*. Malaysia Economic Monitor. Washington DC: World Bank Group. Retrieved 6 April 2015, from <http://documents.worldbank.org/curated/en/2013/12/18645043/malaysia-economic-monitor-high-performing-education>
- Smith, K.R., Woodward, A., Campbell-Lendrum, D., Chadee, D. D., Honda, Y., Liu, Q., et al. (2014). *Chapter 11 on Human health: Impacts, Adaptation, and Co-Benefits*. In Field, C., Barros, B., Dokken, D., Mach, K., Mastrandrea, M.D., et al. (Eds.), *Climate change 2014: Impacts, adaptation, and vulnerability* (pp. 720-732). Part A: Global Sectors and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report (AR 5) of the Intergovernmental Panel on Climate Change. Cambridge University Press. Retrieved 6 April 2015, from [https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf)



- Steffen, W., Persson, Å., Deutsch, L., Zalasiewicz, J., Williams, M., Richardson, K., et al. (2011). The anthropocene: From global change to planetary stewardship. *Ambio*, 40(7), 739-761.
- Suhaily, Mohamad, Che Ngah, Yusri & Zainuddin, Othman. (2011). Impact of land development on water quantity and water quality in Peninsular Malaysia. *Malaysian Journal of Environmental Management*, 112-120.
- Tellier, S., & Lund, S. (Eds.). (2014). *Sexual and Reproductive Health and Rights: Agreements and Disagreements. A background document of the evidence* (4th ed.). Working Group on Sexual and Reproductive Health, August 2014, Copenhagen. Retrieved 6 April 2015, from <http://www.srhr.dk/wp-content/uploads/2014/10/SRHR-Background-Paper-2014.pdf>
- The Star Publications. (8 January, 2010). *Only RM1 treatment charge for common illnesses*. Retrieved 6 April 2015, from <http://www.thestar.com.my/story/?file=%2F2010%2F1%2F8%2Fnation%2F5435368>
- United Nations (UN) Malaysia. (2011). *MDG 1: Eradicate Extreme Poverty and Hunger*, p. 35-36. Malaysia MDG Report 2010. United Nations Malaysia. Retrieved 6 April 2015, from [http://www.un.org.my/0912010200%C2%BBMDG\\_Reports.aspx](http://www.un.org.my/0912010200%C2%BBMDG_Reports.aspx)
- United Nations Framework for Convention on Climate Change (UNFCCC). (2012). *Malaysia information sheet*. Presented at the expert meeting on a range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, 27-29 August, 2012, Bangkok, Thailand. Retrieved 6 April 2015, from [https://unfccc.int/files/adaptation/application/pdf/info\\_sheet\\_malaysia.pdf](https://unfccc.int/files/adaptation/application/pdf/info_sheet_malaysia.pdf)
- United Nations Population Fund (UNFPA). (n.d.). *ICPD goals and the MDGs for Malaysia*. Retrieved 6 April 2015, from [http://www.unfpa.org.my/main/index.php?option=com\\_content&task=view&id=21&Itemid=](http://www.unfpa.org.my/main/index.php?option=com_content&task=view&id=21&Itemid=)
- World Health Organization (WHO) Malaysia. (2010). *Country cooperation strategy 2009 – 2013*. Retrieved 6 April 2015, from [http://www.who.int/countryfocus/cooperation\\_strategy/ccs\\_mys\\_en.pdf](http://www.who.int/countryfocus/cooperation_strategy/ccs_mys_en.pdf)
- World Bank. (2014). *Data Bank*. Retrieved 6 April 2015, from <http://data.worldbank.org/>
- Yahya, R., Shadan, F., Sulaiman, H., Burma, Madeline. (2015). *Socio-Economic Transformation of the Orang Asli Seletar (Kg Bakar Batu, Kg Sungai Temun and Kg Simpang Arang)*. Forthcoming publication by Universiti Kebangsaan Malaysia (UKM).

Yong, C., Sarawakians Access (SACCESS), & Peninsular Malaysia Orang Asli Village Network (JKOASM). (2014). *Deforestation drivers and human rights in Malaysia: A national overview and two sub-regional case studies*. September 2014. Draft report was presented at the International Workshop on Deforestation Drivers and the Rights of Forest Peoples, held in Palangka Raya, Indonesia, March 9-14, 2014. Forest Peoples Programme (FPP). Retrieved 6 April 2015, from <http://www.forestpeoples.org/topics/climate-forests/publication/2014/deforestation-drivers-and-human-rights-malaysia>

# APPENDICES

## APPENDIX 1: Theme and Issues Probed

### Theme

Climate Change and Women's Health

### Issues Probed

The focus of the interviews is to explore what are the additional burdens on women's health:

1. What are their ***special vulnerabilities?***  
Eg. Vulnerability of pregnant women to water-borne or vector-borne diseases like dengue, malaria, cholera, etc.
2. What ***health impacts due to their role as a carer*** in the family?  
Eg. Reduced productivity in agricultural production. As they feed their family first, do women suffer from an increase in anaemia. Or that they find difficulty in household food production which could lead to vulnerability in malnutrition.
3. What magnitude of additional work that is required for them to undertake due to the ***depletion of environmental conditions that may impact their health?***  
Eg. Do women need to go further to collect resources for family use and for their livelihood. How has this change their livelihood strategies and what is the link to their health.

## APPENDIX 2: Interview Protocol for Focus Group Discussion

### Participant's Socio-Demographic Profile

- Name, age, location of residence, number of people in the household.

### Individual Perceptions of Climate Change and Sexual and Reproductive Health and Rights (SRHR)

- Probe into personal meanings of climate change, SRHR and their linkages.
- What is climate change? How different is climate change as opposed to weather?
- What is SRHR?
- How does climate change affect or impact SRHR?

### Status in Household Decision-Making

- Is the household led by a female? (Traditionally, if the male breadwinner is away from home for more than 6 months per year, the female assumes the role of the head of the household.)
- Age, highest education attainment.

### Livelihood Strategies

- How many members of household working outside the community? What do they do? Are they able to contribute to household income?
- Do you grow crops? Raise animals? Fishing?
- Do you produce things to sell? Eg. weaving or beadwork, etc.

### Access to Healthcare and Health Status

- How long does it take to get to the nearest health facility?
- Do anyone get sick very often? What sickness?
- Dengue exposure? Malaria?

### Food Security

- Do you get food from your own farm? How much (estimation by percentage)?
- Has this reduced over the years? How?

### Water Resources

- Do you get pipe water?
- If no, where do you collect?
- If yes, how many water disruption incidences in the past 6 months?
- Do you store water? Is this enough for household needs? Who does this work?

### Impacts from Natural Disasters

- What is the total number of floods, droughts, haze incidences in the past 2 years?
- What is the estimated percentage of losses of physical assets due to these natural disasters?
- Anyone injured?
- What is your experience in the flood relief centres?

### House and Land Tenure

- Do you have the title to this house/land?
- Was the land taken away from you? Did you have to relocate, etc.?

### **APPENDIX 3: Interview Protocol for Organisational Officials and Representatives**

#### Interviewee General Information

- Name, designation, department, organisation.
- Current role and job function.

#### Organisational Focus

- What issues of climate change is within your organisation's focus?
- What are the social dimensions being considered? If none, why? If yes, how?

#### Potential for Engagement

- Would your organisation be interested in reading the literature, as well as participate in the engagement process upon the completion of the scoping study?

## APPENDIX 4: Country Brief

### Population

Malaysia is a small democratic country located in the Southeast Asian region, constituting Peninsular Malaysia (comprising 11 states) and East Malaysia (Sabah and Sarawak). Largely surrounded by the South China Sea, Malaysia occupies a land area of 330,290 km<sup>2</sup> (DOS, 2013) and a coastline stretching at 4,800 km (NRE, 2011).

Malaysia has a total population of 30.6 million, with almost half (14.8 million) are women (DOS, 2014). Men exceeded women at sex ratio of 1:06. Population is projected to increase to 38.6 million in 2040 (DOS, 2013b). Nearly 70% of the population is aged between 15 and 64 years (DOS, 2013). However, as the population group aged 65 years and over is expected to increase at a rate of 4.5% annually, thus Malaysia is set to become an aging population<sup>5</sup> by 2020 (EPU, 2015, appendix A5-1).

In tandem with increasing urbanisation, from 62% in 2000 to 71% in 2010, population density increased from 71 persons per km<sup>2</sup> in 2000 (DOS, 2010) to nearly 91 persons in 2013. It is predicted that by 2020, approximately 77% of Malaysia's population will be concentrated in urban areas (EPU, 2015, appendix A5-1). This trend is reflected in the increase of land use for development, more specifically built environment from 437,090.00 hectares, around 3.3% in 2001 to 1,187,003.59 hectares in 2012, about 6.9 %of total land area in Peninsular Malaysia. The highest population densities are found in Greater Kuala Lumpur at 5.7 million (KWP, 2010) and Penang at 1.63 million<sup>e6</sup>. The states of Sabah, Sarawak and Pahang had the lowest population densities; less than 50 people per km<sup>2</sup> (DOS, 2013). According to the National Hydraulic Research Institute (NAHRIM), Malaysia's coastal population was estimated at 8 million (Lee, 2015).

Malaysia is a multiracial country characterized by the major ethnic composition of Malays or *Bumiputras* (55.1%), Chinese (23.7%) and Indians (7.2%), as well as other *Bumiputra* ethnic minorities constituting indigenous peoples predominantly of Kadazan/Dusun(Sabah), Iban, Bajau, Murut, Bidayuh and Melanau (Sarawak), which collectively make up 13%. It is estimated that 2.4 million residents are non-Malaysian citizens, constituting nationalities from Indonesia, Thailand, Bangladesh and Pakistan (EPU, 2015, appendix A5-1). The focus area of Sarawak is very distinct and is reported to have around 40 sub-ethnic groups. The population of Sarawak is at 2.5 million (Sarawak Government, 2010).

### Environment and Natural Resources

Situated along the equator, Malaysia's climate is tropical with mean daily temperatures of between 26°C and 28°C, with high humidity and copious rainfall. Two monsoon periods occur; southwest monsoon (May to September) and the northeast monsoon (November to March) and two shorter inter-monsoon seasons. During the typhoon seasons, Sabah and

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<sup>5</sup> Based on the United Nations (UN), the aging society is when the population aged 65 and over to achieve 7% of the total population.

<sup>6</sup> e Estimate.

Sarawak regions may be impacted by south-westerly winds over the west Pacific and across Philippines. These seasons affect the distribution of rainfall in the east coast of Peninsular Malaysia, western Sarawak and north-eastern Sabah. Inland areas are generally free from this high rainfall, sheltered by the mountain ranges. Overall, rainfall is abundant, averaging between 2,000 mm and 4,000 mm annually (NRE, 2011).

Malaysia's tropical forests are extremely complex ecosystems and host exceptional diversity in species. In 2000, 56% of total land area was forested whilst in 2007, it was 55%. Malaysia is also considered one of the world's mega-diverse countries and ranked 12th in the world on the National Biodiversity Index. Rainwater is the main source of water. Malaysia receives about 990 billion m<sup>3</sup> annually. Rivers and reservoirs provide 97% of national water demands and forests play an important role as water catchment areas. As the country develops further, increasing population and urbanization is expected to contribute further stress to the nation's water resources (NRE, 2011).

Malaysia is endowed with oil and gas. Its land and soil are suitable for agricultural crops such as oil palm, rubber, paddy and cocoa, as well as activities such as livestock and aquaculture production. Landings of marine fish were 1.4 million tonnes in 2007 (NRE, 2011).

## **Economy**

Malaysia is an upper middle income country. According to the World Bank (2014), Malaysia has a Gross Domestic Product (GDP) of USD326.9 billion, with a projected GDP growth rate of 6%. In the Tenth Malaysia Plan (10MP) (EPU, 2011), the government of Malaysia has set the target of achieving a high income nation by the year 2020. To achieve this target, Malaysia needs to achieve an annual 5.5% growth rate. According to the Eleventh Malaysia Plan 2016-2020, the year 2014 recorded per capita annual income at USD10,796. The major contributors to GDP are the services sector (53%), manufacturing (23%), mining and quarrying (9%), livestock, agriculture, forestry and fishery (9%) (EPU, 2015, appendix A2-3).

The estimated labour force is close to 14.2 million, with participation rates of males higher at 80.3% as compared to females at 54.5%. Majority employed is expected to be from the services sector (60.9%), followed by manufacturing (18%) and agriculture (11%). The unemployment rate is estimated to reduce to 2.9% from 3.0% in 2012 (EPU, 2015, appendix A5-2).

For the year 2014, overall incidence of poverty<sup>7</sup> was at 0.6% of households and hardcore poverty<sup>8</sup> eradicated (EPU, 2015, pg. 1-4). Regional incidence of poverty were 0.3% at urban and 1.6% at rural (DOS, 2014b). States recorded the highest rate of poverty incidence were Sabah (8.1%), Kelantan (2.7%), Sarawak (2.4%) and Perlis (1.9%) (DOS, 2015).

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<sup>7</sup> Poverty is defined as households whose monthly income is below the mean poverty line income (PLI): RM930 (Peninsular Malaysia), RM1,170 (Sabah and Labuan), and RM990 (Sarawak) (EPU, 2015, pg. 4-7). The PLI is updated annually based on the Consumer Price Indices. Malaysia's PLI differs from international definitions of USD1 a day purchasing power parity (PPP), whereby the former is calculated per household per month (UN Malaysia, 2011, p. 36).

<sup>8</sup> Hardcore poverty is defined as households whose monthly income is less than half of the PLI (UN Malaysia, 2011, p. 35).



According to the 10MP (EPU, 2011), pockets of poverty remain in specific geographies and communities. Current poverty eradication programmes focus on the bottom 40% of low-income households which constitutes 2.7 million households of *Bumiputeras* in Sabah and Sarawak, as well as ethnic minorities and indigenous communities in Peninsular Malaysia. The mean monthly income of this group in 2014 was RM2,537 (USD589) (EPU, 2015, pg. 1-12

## Literacy

Literacy rate has been increasing over the years. Among those aged 10 years and above, literacy rate was 94.6%, and those aged 15 years and above was at 94.1%. The percentage of females enrolled at primary schools is 48.6%, secondary schools is 49.8% and tertiary level is 58.2% (EPU, 2013). Recognizing education as the impetus towards a high-income economy, Malaysia allocates 7.7% of its budget for higher education and training, the highest in Asia (Nik Anis, 2015).

## Healthcare Delivery

Healthcare service in Malaysia is provided by the public and private, as well as NGOs which provide conventional or alternative, and complementary healthcare and medicine. Table 3 shows major facilities provided by the national healthcare system. In 2013, public hospitals attended to 67% of total admissions.

Table 2. National Healthcare Facilities as of 31 December 2013

Hospitals	No.	No. of Beds
Public Hospitals (MOH)	141	39,728
Public Hospitals (Non-MOH)	8	3,709
Private Hospitals	214	14,033
Total	363	57,470

Public Health Clinics	No.	Team
Health Clinics	1,039	-
Community Clinics (Klinik Desa)	1,821	-
Mobile Health Teams	-	212
Flying Doctor Services	8 helicopters	13
1Malaysia Clinics <sup>9</sup>	254	-
1Malaysia Mobile Clinic	5 buses	8
1Malaysia Mobile Clinic	3 boats	6

<sup>9</sup> Funded by Budget 2010, the 1Malaysia Clinic concept serves to provide basic medical services for illnesses and injuries such as fever, cough, colds, wounds and cuts, diabetes, and hypertension. For treatment and medication, Malaysian citizens are charged RM1, whereas non-citizens RM15 (The Star, 2010).

Other Private Centres	No.	No. of Beds
Maternity Homes	20	87
Nursing Homes	14	444
Hospice	4	38
Total	38	569

Source: Health Facts 2014, Ministry of Health (MOH)

\*\*\* With 46,916 doctors (75% in public, 25% in private) serving in the national system, the doctor-population ratio stands at 1:633.

Nationally, the number of hospital beds were 57,470, where 75% were provided by the public hospitals. The 214 private hospitals provided 14,033 beds. Other private health centres include, among others, 20 maternity homes, 14 nursing homes and 4 hospices, providing a total number of 569 beds (MOH, 2014).

### Health Status of Malaysians

Over the years, major health indicators have shown improvement. Life expectancy (LE) for both genders have seen an increasing trend. For the year 2013, the estimated LE for males and females were 72.5 and 77.1 years respectively (DOS, 2013). However, this was a smaller increase than global average, and one of the 25 smallest gains in life expectancy worldwide (Lancet, 2014). Whereas, both crude birth rate (CBR) and death rates (CDR) have decreased at 17.2 and 4.7, per 1,000 live births respectively. Total fertility rate was 2.1 (DOS, 2013).

Other indicators reported in 2012 such as infant mortality rate was at 6.3, perinatal mortality rate at 7.4 and toddler mortality rate at 0.4, per 1,000 live births respectively. In addition, the maternal mortality ratio remains low at 25.6 per 100,000 live births (MOH, 2014). In Southeast Asia, Malaysia's children under the age of five had the lowest probability of death in 2013 (Lancet, 2014).

According to the Ministry of Health, the five causes of hospitalization (both at public and private hospitals) in 2013 were pregnancy, childbirth and the puerperium<sup>10</sup> (20.77%), respiratory diseases (12.41%), infectious and parasitic diseases (9.4%), injury, poisoning and accidents (8.29%), and heart disease and diseases of pulmonary circulation (7.53%) (MOH, 2014).

### ***Non-Communicable Diseases (NCDs) - Incidence, Mortality and Gender Gap***

In 2010, non-communicable diseases (NCDs) most prevalent were heart disease, cancer, diabetes, and stroke. These accounted for 64% of all deaths. Road injuries and heart disease were the top two causes of death for people between the ages of 15 and 49, resulting in 6,611 deaths. Females between the ages of 15 and 49 tend to succumb to cancer, heart disease and diabetes. In particular, females outnumbered males in incidences of and mortality from diabetes. For children under age of five, the principal cause of death was congenital anomalies, resulting in 951 deaths (GBD, 2014).

<sup>10</sup> Post-natal complications within six weeks of childbirth.

### **Communicable Diseases (CD) - Incidence, Mortality and Gender Gap**

As temperature rises and rainfall increases, the prevalence of communicable diseases (CDs) are on the rise. Table 2 below shows the incidence and mortality of CDs in 2010. The most prevalent and deadly CDs were respiratory diseases, HIV/AIDS, typhoid and tuberculosis. Females were more susceptible and vulnerable to diarrhoeal diseases and dengue as compared to males (as highlighted in red). For children under age of five, the principal causes of death were diarrhoea, lower respiratory infections, meningitis, and other common infectious diseases, resulting in a total of 930 deaths (GBD, 2014).

Table 3. Incidence and Mortality of Communicable Diseases in 2010

Communicable Diseases	Incidence			Mortality		
	Both Genders	Male	Female	Both Genders	Male	Female
Respiratory diseases	392,578	228,218	164,361	8,022	5,341	2,681
HIV/AIDS	235,735	195,486	40,250	4,977	4,111	866
Typhoid and paratyphoid fevers	97,753	56,493	41,260	1,518	873	645
Tuberculosis	61,133	45,241	15,891	1,509	1,150	359
Diarrhoeal diseases	38,247	18,890	19,357	296	148	148
Malaria	16,741	10,823	5,919	21	13	8
Dengue	11,988	5,788	6,201	219	104	115
Hepatitis B	10,987	8,529	2,458	351	306	108
<b>Total</b>	<b>865,162</b>	<b>569,468</b>	<b>295,697</b>	<b>16,913</b>	<b>12,046</b>	<b>4,930</b>

Source: Global Burden of Disease Study (GBD) 2014, Institute for Health Metrics and Evaluation (IHME)

### **Gender Mainstreaming**

The Malaysian Government has made strong commitment to mainstream gender in all policies and programmes to ensure that national development priorities are geared towards achieving gender equality. The incorporation of gender ensures that government processes address the needs and interests of individuals that belong to different social groups, aspects of biases that can arise because a person is male or female, and also sensitised on the disadvantages suffered as a result of the person's ethnicity, caste, class or poverty status, location and age. Some of the important initiatives undertaken towards achieving this are:

1. Formulation of the National Policy on Women in 1998.
2. Incorporation of the principle of non-discrimination on the basis of gender into the Federal Constitution of Malaysia in 2001.
3. Establishment of the Ministry of Women, Family and Community Development in 2001.

4. Establishment of Gender Focal Points at decision-making levels in ministries and Government departments to enhance gender mainstreaming since 2004.
5. Establishment of mechanisms at the federal, state and district levels including the Cabinet Committee on Gender Equality; National Advisory Council for Women (NACW); the National Council on Women and Family Development (NCWFD); and the Department of Women Development (DWD).
6. Development the publication of the Annual Statistics on Women, Family and Social Welfare since year 2002 by the Ministry of Women, Family and Community Development.
7. Various Treasury Call Circulars to strengthen the importance of gender at every level of its decision-making, implementation and monitoring in particular ensuring that budgets are gender responsive. For example, the Treasury Call Circular No. 2 Year 2013.
8. Importance of sex-disaggregated data<sup>11</sup> as the key enabler toward a more gender responsive approach.

Malaysia is committed to the Millennium Development Goals (MDGs) and implements the Programme of Action of the International Conference on Population and Development (ICPD PoA) 1994 as well as the Platform for Action of the Fourth World Conference on Women 1995. However, sexual and reproductive health and rights (SRHR) issues is still not adequately addressed in the climate change debates, both the national levels and international representations. Women's issues and gender related issues are hardly addressed and if addressed is made weak with the lack of data and research to show the significance of considering gender related issues.

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<sup>11</sup>Sex-disaggregated data is quantitative statistical information on differences and inequalities between women and men (DFID, 2002).

This research is an initiative of a regional partnership that are working together on building the interlinkages of climate change and SRHR. The 8 partners are from Bangladesh, Indonesia, Lao PDR, Malaysia, Maldives, Nepal, Pakistan, and the Philippines. The regional partnership generates evidence on the linkages of the issues and advocates for the integration of SRHR in climate change frameworks to advance sustainable development.

**PENITA Initiative Malaysia** is an initiative working with grassroots women leaders towards advancing issues of environmental stewardship, gender and sustainable development, and is the community service component of PENITAJAYA Sdn. Bhd., a social enterprise dedicated to enhancing women's leadership.

**ARROW** is a regional non-profit women's NGO based in Kuala Lumpur, Malaysia, and has consultative status with the Economic and Social Council of the United Nations. Since it was established in 1993, it has been working to advance women's health, affirmative sexuality and rights, and to empower women through information and knowledge, evidence generation, advocacy, capacity building, partnership building and organisational development.

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