## OBSERVED CLIMATE CHANGES AND IMPACTS

| CLIMATE VARIABLES | OBSERVED AND <br> POTENTIAL CLIMATE CHANGES | RISKS AND POTENTIAL IMPACTS |
| :---: | :---: | :---: |
| EXTREME HEAT AND TEMPERATURE RISE | - More days with high/extreme temperatures; More heat waves. <br> - More days with low/extreme temperatures; More cold waves. <br> - It is very likely that heat waves will occur more often and last longer. | > Mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations such as those living in shanties, those working outdoors in urban or rural areas, older people and those with pre-existing health conditions. <br> > Risks from vector-borne diseases which arise due to conducive breeding environment that they receive from changing temperature and humidity conditions. <br> > Reduction in renewable surface water and groundwater resources in most dry subtropical regions. |
| CHANGES IN PRECIPITATION LEVELS | - Increase in number of dry days; Longer dry spells. <br> - Increase in winter rainfall. <br> - Increase in high intensity precipitation events spread across fewer wet days. <br> - Delay in onset of rainfall seasons. <br> - It is very likely that the extreme precipitation events will become more intense and frequent in future. | > Increased food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes particularly for poorer populations in urban and rural settings. <br> > Risk of severe ill-health and disrupted livelihoods for large urban populations due to inland flooding in some regions. <br> > Loss of rural livelihoods and income due to insufficient access to irrigation water and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions. |
| COASTAL FLOODING AND SEA LEVEL RISE | - Coastal systems and low-lying areas will increasingly experience submergence, flooding and erosion due to sea level rise. | > Death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands, due to storm surges, coastal flooding, and sea level rise. <br> > Marine ecosystems, especially coral reefs and polar ecosystems, are at risk from ocean acidification. <br> > Loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities. |
| CYCLONIC DISTURBANCES | - Changes in frequency and intensity of cyclonic disturbances. | > Health risks due to inadequate drinking and domestic water and decline in water quality leading to water-borne diseases. <br> > Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health and emergency services. <br> > Risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods. |

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[^0]:    Source: IPCC-AR5 (2014a)

