

CLIMATE CHANGE IN VIETNAM AND RESPONSE

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SUMMARY

Climate change impacts to Vietnam are serious, a challenge to the cause of hunger eradication and poverty reduction, millennium development goals, and country's sustainable development. Most vulnerable sectors and regions to climate change are water resources, agriculture and food security, public Health, deltas and coastal areas.

An assessment of climate change impacts to different sectors and regions in Vietnam are studies. It is found that changes of climate factors and sea level have the following noticeable feature: (1) Over the past 50 years, annual average temperature has increased about 0.5 to 0.7°C; (2) Typhoon trajectory moves southward and typhoon season shifts to later months of the year and there were more typhoon with high insensitive; (3) Number of drizzle days decreases significantly; (4) Frequency of cold front in the North decreases significantly in the past three decades, from 288 events in the period of 1971 - 1980, 287 events in 1981 - 1990, to 249 events in 1991 - 2000. Number of extreme cold spell decreases, however, in some years it prolongs with historical insensitive, e.g. in 2008; (5) Number of hot wave is more in the period of 1991 - 2000, especially in the Central and South; (6) Rainfall increases in rainy season (Sep. to Nov.) causing more frequently severe floods in the Central and Southern Vietnam. However, it decreases in dry season (Jul. to Aug.) causing drought every year in most regions of the country. Off-season extreme rainfall events occur more frequently, More profound are events in Nov. in Ha Noi and surround in 1984, 1996, 2008; (7) ENSO has stronger effects on weather and climate in Viet Nam.

Climate change and sea level rise scenarios for Vietnam are developed. The global climate model (MRI-AGCM) from the Meteorological Research Institute and Japan Department of Meteorology, PRECIS model of the Hadley Center - UK, and statistical downscaling method area applied. The low emission scenario (B1), medium emission scenario (B2), and high emission scenario (A2) area considered in the study.

Due to the complexity of climate change and limitation of our knowledge in climate, both in Vietnam and in the world, together with the consideration of mentality, economy, uncertainty in green house gas emission ..., the medium scenario is, therefore, harmonious and recommended for climate change impacts assessment and action plan development for Vietnam.