**Paper 1: Stocktaking of Global Heat HAZARD + EXPOSURE**

**Page target 20-25, with annexes as required**

This stocktaking will help identify and outline the global state of the science with regards to understanding and predicting the heat related hazards to human health and human population exposure to increasing and extreme temperatures. It will highlight similarities and differences in systems for characterizing the hazards, heat prediction across timescales (weather, S2S, and decadal). This stocktaking will inform a common thread framework for GHHIN to track progress being made in key categories, synthesize current science in a standard way, and establish indicators to help structure country profiles that will be completed by GHHIN members autonomously.

**Part 1: State of extreme ambient heat hazard characterization**

Describe observed trends of heatwaves, of high nighttime temperatures, of heat in combination with humidity/air quality.

**Part 2: Research:** what is the research/method used to inform how an extreme heat event is defined? Inclusion of mortality/morbidity/hospital admission data?)

**Part 3: State of global, regional, and national temperature observation and monitoring systems** of (climatological records, RCC capabilities eg: IMD Regional Forecast)

**Part 4: State of Extreme Heat Prediction**: State of the science in products, sources of predictability, by timescale: climate predictions, climate outlooks, forecasts, warnings); indices

**Part 5: Early Warning Systems.** Diverse priorities across timescales: reference table of comparative heat alert systems; parameters, definitions

**Part 6: Exposure:** Discuss definitions and what makes heat dangerous to humans.

Geographic Determinants: Latitude, Urban Heat Islands; Social Determinants (point to vulnerability chapter).