Working Group I

- Climate system (atmosphere, ocean, land surface, cryosphere): observations (past and present), processes, and interactions.
- Natural and anthropogenic drivers of climate change (land use, well-mixed greenhouse gases, short-lived forcers including aerosols), carbon and other biogeochemical cycles.
- Climate modelling, model evaluation, predictions, scenarios and projections, detection and attribution, on global and regional scales.
- Earth system feedbacks and dynamical responses, including abrupt change.
- Climate variability, climate phenomena and teleconnections, extremes and implications for regional climate.

Working Group II

- Impacts on and vulnerability of natural and managed systems (land, freshwater and oceans) including genetics, physiology and regional ecosystem expertise.
- Palaeo and historical views of natural, managed and human systems across regions.
- Impacts, vulnerability and risks for sectors including fisheries, agriculture, tourism, transport, resource extraction, energy.
- Impacts, vulnerability and risks for human systems including health and wellbeing, indigenous and cultural, livelihoods, poverty.
- Impacts, vulnerability and risks for settlements, including rural, urban, cities, and those on small islands and in coastal areas, and related systems and processes including food, economic and energy security, migration.
- Adaptation needs, options, opportunities, constraints and influencing factors including contributions from psychology, sociology, and anthropology.
- Approaches for adaptation to climate change: ecosystem and community based adaptation, disaster risk reduction, and early warning systems.
- Socio-cultural, anthropological and psychological background of making and implementing decisions.

Working Group III

- Socio-economic scenarios, modelling and transitions at the global, regional, national and local scales including integrated assessment approaches.
- Energy systems including supply and energy demand sectors (e.g., industry, transport, buildings).
- Mitigation responses in agriculture, forestry, land use and waste.
- Consumption patterns, human behavior and greenhouse gas emissions, including economic, psychological, sociological and cultural aspects.
- Policies, agreements and instruments at the international, national and subnational levels, including those at the city level.
- Technology innovation, transfer and deployment.
- Financial aspects of response options.

Cross-cutting areas of expertise

- Co-benefits, risks and co-costs of mitigation and adaptation, including interactions and trade-offs, technological and financial challenges and options.
- Ethics and equity: climate change, sustainable development, gender, poverty eradication, livelihoods, and food security.
- Perception of risks and benefits of climate change, adaptation and mitigation options, and societal responses, including psychological and sociological aspects.
- Climate engineering, greenhouse gas removal, and associated feedbacks and impacts.
- Regional and sectorial climate information.
- Epistemology and different forms of climate related knowledge and data, including indigenous and practice-based knowledge.