

CTCN Mitigation Sectors		
A: Sector	B: Technology group	C: Technology
Carbon Fixation and Abatement	Fugitive emission control	Oil and gas flaring reduction Coal mine methane Natural gas pipeline leaking Charcoal production
	Carbon capture and storage	CO2 transport technologies CO2 storage technologies CO2 capture technologies
Transport	Inland water & maritime	Maritime freight Maritime support systems
	Land transport	Traffic management More efficient heavy duty vehicles More efficient light duty vehicles Modal shift from car to cycling Modal shift from road to rail Road pricing Intelligent transport systems Scrappage programmes Transport Demand Management Freight management More efficient train system Transit-oriented development Bus Rapid Transit Cable cars Promotion of non-motorised transport High-speed rail
	Vehicle and fuel technologies	Compressed Natural Gas as fuel Biogas as fuel Advanced biofuels Energy-efficient motors Liquefied Natural Gas in trucks and cars Electric vehicles Regenerative braking Liquefied Petroleum Gas in transport Fuel cells for mobile applications Hybrid electric vehicles
	Aviation	Aviation support systems Air cargo
Energy efficiency	Energy distribution	Hydrogen infrastructure District heating and cooling Micro-grid Smart grid Connection of isolated grid
	Appliances and equipment	Water efficiency Residential water heaters LPG and LNG for household and commercial cooking Lighting Community-based energy services Appliance standards Efficient server and network technology Improved cook stoves Fuel cell technologies Appliances Water purification Energy labelling Water pumping
	Buildings	Sustainable design Daylight harnessing New building design Insulation in buildings Building envelope thermal insulation Building materials Building life cycle and integrated design process Building standards and codes Greening the built environment Retrofitting of existing buildings Building automation Building Energy Management Systems Carbon sink and low-carbon building materials Heating - Ventilation and Air Conditioning Design for Deconstruction High performance building facades Passive house design Traditional building materials and design Sustainable spatial planning Cool roofs Efficient air conditioning systems Indirect evaporative cooling
	Energy storage	Compressed air energy storage Phase change materials for thermal energy storage Capacitors Batteries Pumped hydroelectric energy storage Flywheels Superconducting magnetic energy storage Underground thermal energy storage
Renewable energy	Solar	Solar cooking Solar cooling and hybrid systems with heating and hot water Solar towers (updraft) Solar water purification Building-integrated PV Solar water pumps Solar heating Solar lamps Solar PV Solar thermal power Solar dryer Energy tower (downdraft) Solar water heater
	Renewable energy infrastructure	Hydrogen technologies Off-grid systems Fuel cells Fuel cells for stationary applications Renewable energy resource mapping Grid integration for renewables
	Hydro	Run-of-river hydropower
	Ocean energy	Osmotic power Ocean thermal energy conversion Wave energy Tidal energy
	Wind	On-shore wind Building-integrated wind turbines Offshore wind

		Wind water pumping
		Small-scale wind
Bioenergy		Biofuels from algae
		Switch from fossil fuel to biomass
		Biogas for heating
		Energy supply from waste
		Biogas power
		Biomass briquettes or pellets
		Biomass for heating
		Black liquor
		Biomass power
		Ethanol fuel
		Biodiesel
		Biodiesel from waste oil
		Charcoal production for cooking and heating
		Household biogas
		Biodiesel from waste oil
Geothermal		Heat pumps
		Geothermal electricity
		Geothermal heating
Waste Management		
	Solid waste	Landfill aeration
		Gasification of waste
		Integrated solid waste management
		Landfill biocovers
		Landfill composting
		Industrial solid waste
		Municipal solid waste
		Landfill gas power
		Incineration of waste
		Landfill gas flaring
	Recycling	Recycling of Waste Electronic and Electrical Equipment
		Glass recycling
		Advanced paper recycling
		Product component and materials recycling
	Wastewater	Wastewater management systems
		Aerobic wastewater treatment
Forestry		
	Sustainable forest management	
	Mangroves conservation and rehabilitation	
	Forest management techniques for mitigation	
	Urban forestry	
	Afforestation	
	Soil carbon measurement	
	Carbon stock measurement, monitoring and verification	
	Reforestation	
	Biomass carbon measurement and monitoring	
Agriculture		
	Grassland management	
	Demand efficiency	Minimizing food waste
		Dietary changes
	Cropland	Crop varieties with enhanced carbon sequestration
		Nutrient management: mycorrhiza
		N2O reduction
		Cropland management
		Machinery
		Mineral fertilisers
		Irrigation
		Rice cultivation
		CH4 reduction
		Soil management
		Restoration of organic soils
		Restoration of degraded lands
		Organic agriculture
		Reduction of energy use in traction
		Field burning of agricultural residues
		Precision agriculture
		Conservation tillage
		Peat carbon management
		Biochar
		Landscape multifunctionality
		Cover crop technology
		Manure coverage
		Crop drying
	Wetland management	
	Soil carbon measurement	
	Carbon stock measurement, monitoring and verification	
	Improvement of Agri-food processes	
	Livestock management	Manure management
		Selective breeding via controlled mating
		Methane emission mitigation of ruminants
		Straw ammoniation and silage
		Temperature regulation for livestock
		Enteric fermentation
		Livestock disease management
		Grazing land management
		Fodder banks
		Climate tolerant livestock
		Domestic manure
		Pasture management
		Livestock feed optimisation
Industry	Biomass carbon measurement and monitoring	
	Mining & production	Non-ferrous metals
		Reducing air and steam leaks
		Blast furnace slag granulation
		Direct casting for iron and steel sector
		Coke dry quenching for iron and steel sector
		Inert anode technology for aluminium smelters
		Iron & steel processing
		Aluminium industry
		Scrap preheating for iron and steel
		Improved efficiency in mining and resource extraction
		Smelt reduction for iron and steel sector
		Advanced wet quenching for iron and steel sector
	Fossil fuel shift	Oil to electricity
		Oil to LPG
		Fossil fuels to natural gas
		New natural gas plant
		Fuel switch in industry
	Construction	Efficient brick kiln
		Clinker replacement
		CCS from cement production
		Cement production
		Cement heat
		Glass production
	Manufacturing industry	Machinery
		Efficient supply chains
		Mitigation in the textiles and leather industry
		Industrial symbiosis
		Electronic control systems
		Eco-design
		Wood products
		Mitigation in the pulp and paper industry
		Electronic devices
		Bioplastics

Conventional power plant efficiency	Power plant rehabilitation
	Stirling engine
	Natural gas combined cycle plants
	Integrated gasification combined-cycle
	Single cycle to combined cycle power generation
	Replacement of district heating boilers
	Higher efficiency oil power
	Higher efficiency steam boiler
	Waste heat recovery
	Trigeneration
	Small-scale Combined Heat and Power
	Large-scale Combined Heat and Power
Chemicals management	N2O reduction
	Shift to coolants and refrigerants with lower GWP
	SF6 reduction
	Adipic acid
	Biopolymer production for petrochemical sector
	CH4 reduction
	CO2 replacement
	CO2 recycling
	PFCs reduction
	Carbon black
	Ammonia
	Nitric acid
	NF3 reduction
Transport of raw fuels	Coal transport
	Biomass transport
	Liquefaction plants
	LNG and LPG carrier

CTCN Adaptation Sectors		
A: Sector	B: Technology group	C: Technology

Early Warning and Environmental Assessment	Remote sensing & GIS	seasonal to interannual weather forecast
	Hazard mapping	Disaster risk assessment tools
		Hazard mapping solutions
		Flood hazard mapping
	Early warning systems	Early Warning Systems Communication
		Community-run early warning systems
		Climate scenario development
		Flood forecasting systems
		Landslide and mudflow warning systems
	Monitoring systems	Monitoring of invasive species
	Climate change monitoring	
	Light detection and ranging	
	Water resource assessment	
	Ecosystem monitoring	
Improved weather forecasting & hydrometeorological networks		

Agriculture and Forestry	Terrestrial ecosystems management	Ecological corridors
		Ecological buffer zones
		Bushfire reduction and prescribed fire
		Wetland restoration and rehabilitation
		Control of sand encroachment
		Biodiversity management systems
		Forest fire control
	Agro-forestry, Silviculture & Mixed farming	Rainguard for rubber trees
		General agro-forestry - silviculture and mixed farming solutions
		Agroforestry
Seed, grain & food storage	Crop storage	
	Ex situ conservation and seed banks	
	Food banks and distribution of food surplus	
Increasing crop resilience and productivity	Sustainable fertilizers	
	Terracing	
	Integrated nutrient management	
	Soil moisture monitoring	
	Soilless agriculture	
	Fodder crops	
	Wind breaks	
	Greenhouse crop management	
	Organic agriculture	
	Fertilizer management	
	Fungal symbioses	
	Precision agriculture	
	Biochar technology	
	Pest and insect control	
	Biotechnology for crop adaptation	
	GMO crops	
	Conservation tillage	
	Improved cultivation techniques	
	Crop diversification and new varieties	
	Aeroponic seed production	
	Crop rotation	
Livestock management	Manure management	
	Selective breeding via controlled mating	
	Methane emission mitigation of ruminants	
	Straw ammoniation and silage	
	Temperature regulation for livestock	
	Enteric fermentation	
	Livestock disease management	
	Grazing land management	
	Fodder banks	
	Climate tolerant livestock	
	Domestic manure	
	Pasture management	
	Livestock feed optimisation	
Land management training	Community-based agricultural extension	
	Forest user groups	
	Farmer field schools	

Water	Water efficiency and demand management	Water efficiency in industry
		Leakage management in piped systems
		Water accounting
		Irrigation efficiency and information systems
		Progressive water pricing
		Water savings requirements in building codes
		Public water conservation campaigns
		Water licensing and permits
	Adaptation planning	Hazard mapping
		seasonal to interannual weather forecast
	Disaster risk assessment tools	
	Hazard mapping solutions	
	Flood hazard mapping	
	National plan	
	Technology Needs Assessment	
	National Biodiversity Strategies and Action Plan	
	National Adaptation Plan	
	National adaptation programmes of action	

	Stakeholder consultations
	Open source climate data and tools
	Climate change vulnerability assessment
	Downscaling of climate model projections
Water augmentation (increasing capture and storage of surface run-off)	Rainwater harvesting
	Integration of green spaces in planning
	Watershed conservation
	Source water protection
Hydropower	Multi-purpose dams
	Small hydropower
	Large hydropower
	Embedding climate variability in hydropower design
Water pollution	Point of use water treatment
	Domestic water treatment & management
	Wastewater treatment plant
	Flood-proof sanitary latrines
	Water Safety Plans
Riverine flood protection	River restoration
	Flow-through dam for flood control
	Artificial lowering of glacial lakes
	Re-connecting rivers with floodplains
	Disaster preparedness plans
	Accommodation for flooding
	Sandbags against flooding
	Flood proof wells
	Floodplain zoning
Urban storm water management	Canals and drainage systems
	Runoff control structures to temporarily store rainfall
	Permeable parking lots
	Drainage gradient
	Bioswales
Water storage	Ponds and tanks
	Natural wetlands and green infrastructure
	Water reservoirs
	Limiting land conversion & deforestation
	Designing protected areas
	Soil moisture conservation techniques
	Indigenous water storage structures
Use of alternative water sources	Seawater desalination
	Interbasin transfers
	Solar water distillation
	Water recycling and reclamation
	Fog harvesting
Integrated planning	Basin level planning
	Integrated Water Resources Management
	Hydrological modelling
	Groundwater extraction and monitoring
Limiting nutrient leakage	Riparian buffers
	Land use limitations
	Designing protected areas
	Change in land use practices
Water allocation	Seasonal water restrictions
	Basin level modelling for water allocation
	Water reallocation
Human Health	Emergency medical services
	Advanced IT systems in the health sector
	Disease surveillance systems
	E-Health
Public health services	Education of health personnel
	Heat wave plans and emergency response
Vaccination programs	Rapid diagnostic tests
Vector-borne diseases	Malaria protection and prevention programs
	Long-lasting insecticidal bed nets
Infrastructure and Urban planning	Engineered cementitious composite (ECC)
	Warm-mix asphalt
Ground surface material	Elevated buildings
Sewerage infrastructure	Urban infrastructure development
Land use in human settlements	General planning solutions
Grid resiliency	Resilient railway systems
Building design and material	Resilient road systems
Urban design and spatial planning	Coastal setbacks
Building construction	Managed realignment
Water supply infrastructure	Flood and cyclone shelters
Urban planning	Flood-proofing
	Floating houses
	Management of seagrass beds
	Floating agricultural systems
	Groundwater management
	Flood warning systems
	Coastal zoning
Building codes	Sediment management
Resilient transport systems	Restoration and protection of coral reefs
	Coastal monitoring
	Ecosystem restoration and conservation plans
Coastal Zones	Storm surge barriers and closure dams
Retreat	Breakwaters
	Jetties
	Dikes
	Sea walls
	Groynes
	Geosynthetics
	Coastal infrastructure rehabilitation
	Revetments
Accommodation	Cliff stabilisation
	Land claim
	Beach nourishment
	Constructed wetlands
	Dune construction & stabilisation
Integrated coastal zone management	
Protection (hard engineering)	
Protection (soft engineering)	

Marine and Fisheries

Active motion-dampening systems for marine ports

Seaweed farming

Marine protected areas

Fisheries management

Artificial reefs

Aquaculture management
