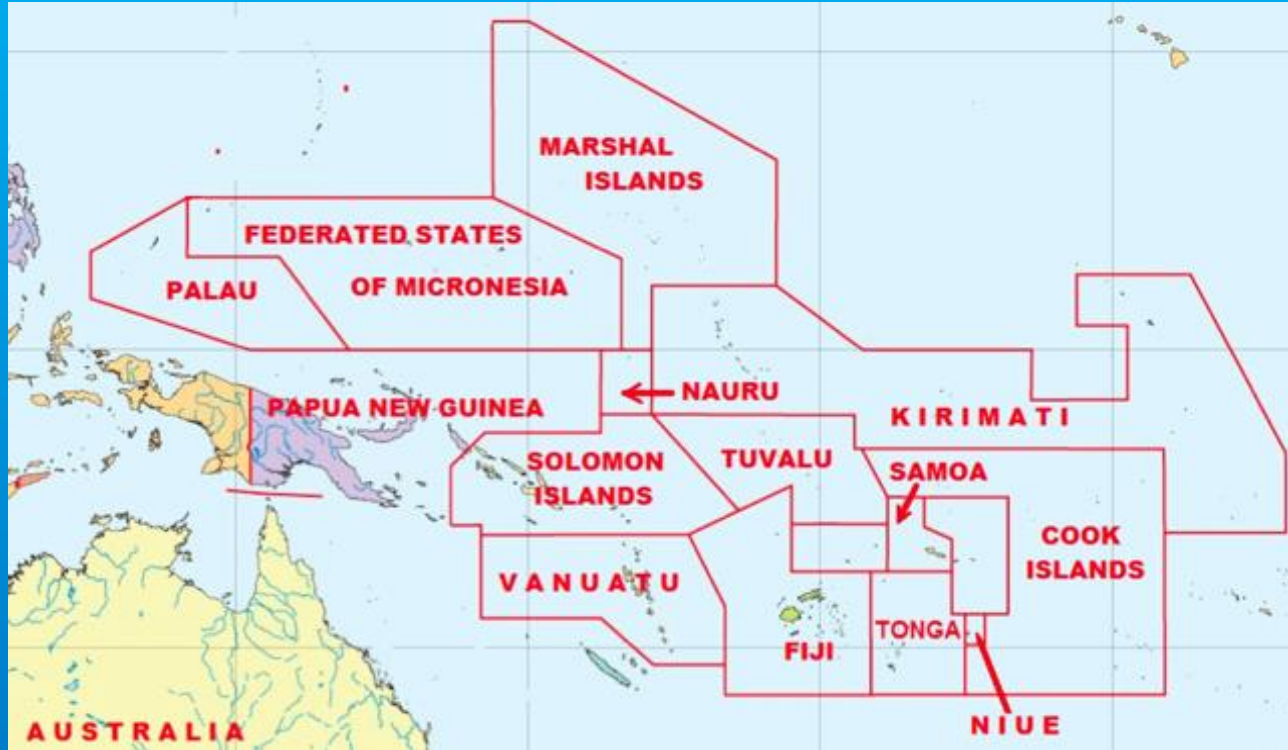


South Pacific – Fiji:

East Africa – Uganda:



Regional Workshops – Observations for local needs

COP-22, Marrakech, 2016

Decision 19/CP.22

SBSTA45 Conclusions



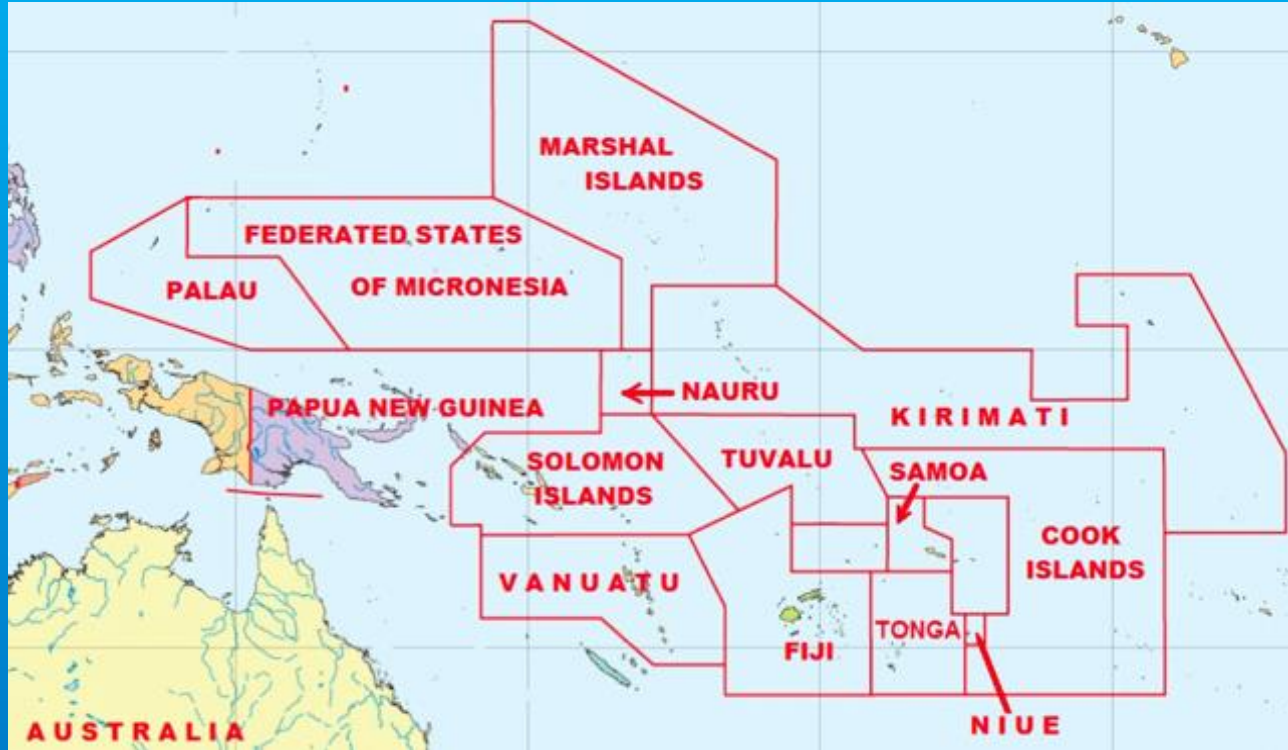
Regional Workshops - Observations for local needs

- Regional workshops requested by SBSTA
- Workshops have focused on important regional issues rather than all observations
- The climate impacts of most concern in these regions are related to temperature and precipitation:
 - Heat waves
 - Floods
 - Droughts
 - Storms leading to damage, storm surges, landslides etc.
- Thus observations, forecasts and projections of temperature and precipitation are needed from hours to days, seasons, decades and more

Regional Workshops - Observations for local needs

- Forecasts of temperature and precipitation are provided by
 - Local models and reanalysis which are embedded in global NWP models and reanalysis
 - Accuracy of models depends on adequate data and accuracy of global models
 - Without accurate global models, local forecasts and predictions are unreliable
- Providing local data (e.g. upper air and surface observations such as pressure, winds and temperature) to international centres will
 - improve both global and local forecasts and projections
 - Support Global NWP, global reanalysis and climate models
 - Strengthen local and national climate services
- Timely exchange of local data with global NWP centres is needed

South Pacific – Fiji:



Countries cannot afford the consumables needed to operate an upper air station.

Countries cover huge expanses of ocean with poor and slow communications and transport.

East Africa – Uganda:



Insufficient reporting to meet climate and weather needs.

Lack of planning for sustainable operation.

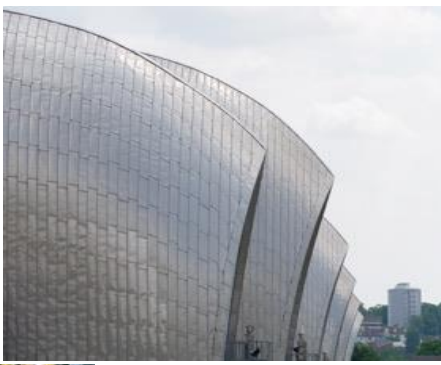


Systematic Climate Observations

Financial Support

Capacity Building

Monitoring for planning adaption to climate change: projections and risk estimation



Monitoring of implementation of adaption (urban change, infrastructure, agriculture, ...)



Monitoring of Land categories and forests: Mitigation, Adaptation, ...

Monitoring for Emergency Warning systems, projections and risk assessments



Monitoring anthropogenic fluxes of GHGs, natural sources and sinks, & carbon cycle



Monitoring global temperature



Overall impact of NDCs: state of the climate, global water cycle and energy fluxes

Monitoring to support renewable energy, winds, water etc.



Provision of Capacity Building

Technology Transfer

Mitigation

Adaptation

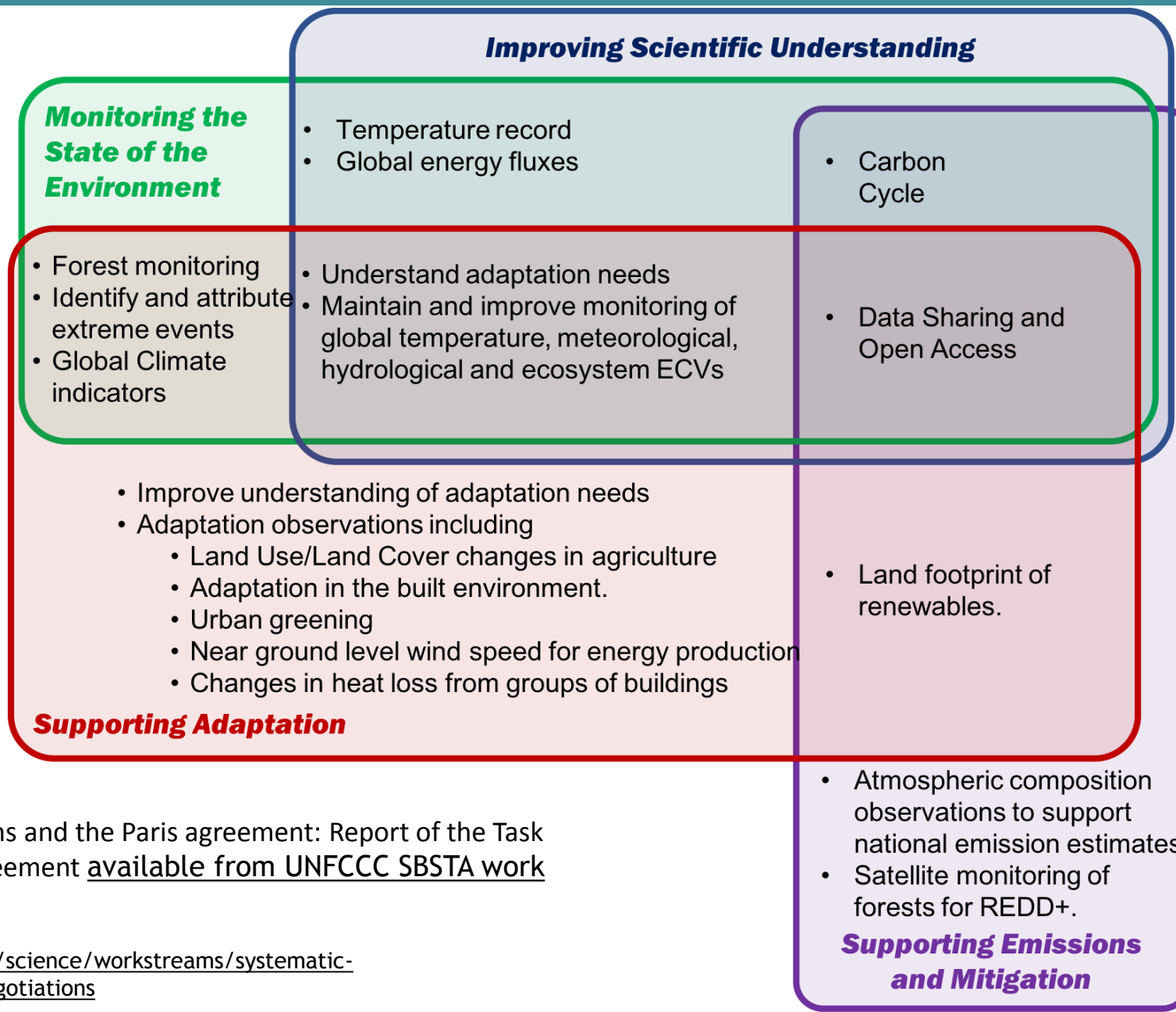
Transparency framework: reporting

Measuring progress towards goal

Provision of financial support

Paris Agreement and its Global Stocktake

Summary of the monitoring needs identified by GCOS



Systematic observations and the Paris agreement: Report of the Task Team on the Paris Agreement [available from UNFCCC SBSTA work stream web site:](https://unfccc.int/topics/science/workstreams/systematic-observation/upcoming-negotiations)

<https://unfccc.int/topics/science/workstreams/systematic-observation/upcoming-negotiations>

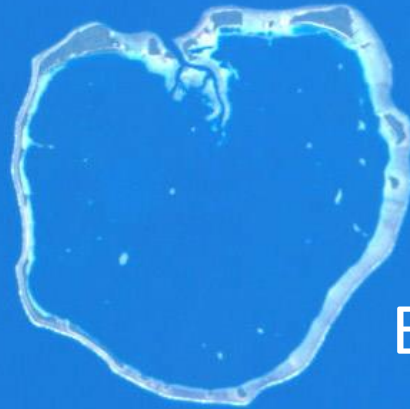
Agreed Climate Indicators - Candidate Indicators

	Temperature and Energy	Atmospheric Composition	Ocean	Cryosphere	Biosphere
Global Indicators	<ul style="list-style-type: none">Surface TemperatureOcean Heat	<ul style="list-style-type: none">Atmospheric CO₂	<ul style="list-style-type: none">Ocean AcidificationSea Level	<ul style="list-style-type: none">Glacier Mass BalanceArctic and Antarctic Sea Ice	
Indicators under development	<ul style="list-style-type: none">Heat Waves		<ul style="list-style-type: none">Heavy PrecipitationDroughts		<ul style="list-style-type: none">Ecosystem change
Supplementary Indicators	<ul style="list-style-type: none">Top of atmosphere energy balance	<ul style="list-style-type: none">MethaneN₂OHalocarbon GHG		<ul style="list-style-type: none">Snow extent	
			Water		

WMO/IPCC Pavilion

Monday 3 Dec, 18:15 – 19:45

Systematic Observations & Paris Agreement
/ Space Agencies



Southern Pacific / Fiji &
East Africa Workshop / Uganda

WMO/IPCC Pavilion

Tuesday 4 Dec, 13:15 – 14:45

Climate Indicators &
State of the Climate

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<https://gcos.wmo.int/>

