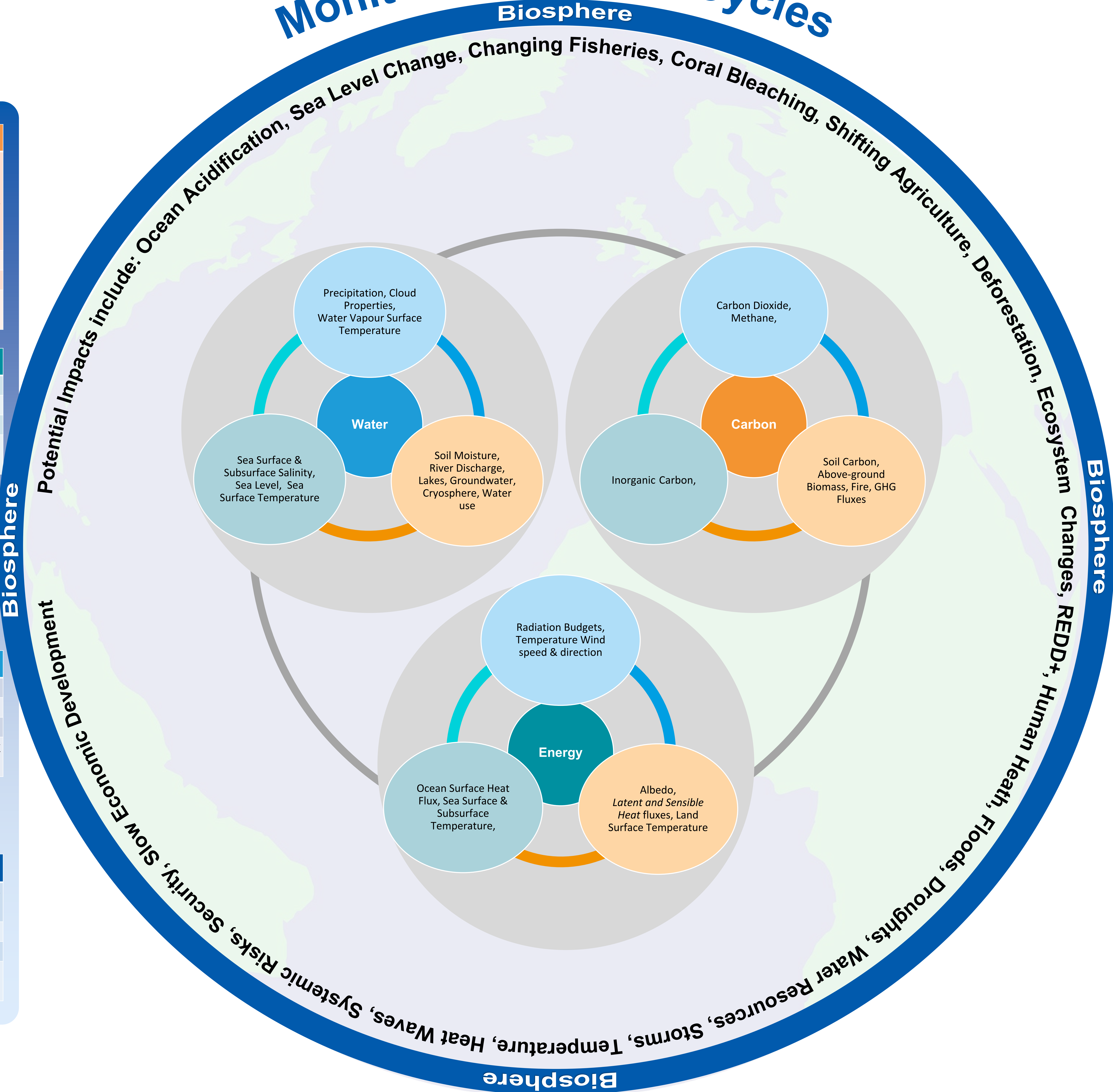


# Monitoring Climate Cycles



## Closing the carbon budget

<b>Targets</b>	Quantify fluxes of carbon-related greenhouse gases to +/- 10% on annual timescales Quantify changes in carbon stocks to +/- 10% on decadal timescales in the ocean and on land, and to +/- 2.5 % in the atmosphere on annual timescales
<b>Who</b>	Operators of GCOS-related systems, including data centres
<b>Time frame</b>	Ongoing
<b>Performance indicator</b>	Regular assessment of uncertainties in estimated fluxes and inventories

## Closing the global energy balance

<b>Targets</b>	Balance energy budget to within 0.1 Wm <sup>-2</sup> on annual timescales
<b>Who</b>	Operators of GCOS-related systems, including data centres
<b>Time frame</b>	Ongoing
<b>Performance indicator</b>	Regular assessment of imbalance in estimated global energy budget

## Targets from the GCOS Report: The Global Observing System For Climate: Implementation Needs (GCOS-200)

## Closing the global water cycle

<b>Targets</b>	Close water cycle globally within 5% on annual timescales
<b>Who</b>	Operators of GCOS-related systems, including data centres
<b>Time frame</b>	Ongoing
<b>Performance indicator</b>	Regular assessment of the uncertainties in estimated turbulent flux of latent heat

## Explain changing conditions of the biosphere

<b>Targets</b>	Measured ECVs that are accurate enough to explain changes of the biosphere (for example, species composition, biodiversity, etc.)
<b>Who</b>	Operators of GCOS-related systems, including data centres
<b>Time frame</b>	Ongoing
<b>Performance indicator</b>	Regular assessment of the uncertainty of estimates of changing conditions as listed above