



IV Congreso EECN
Edificios Energía Casi Nula
Madrid, 13-14 Diciembre 2017

NOBELIA, THE GATEWAY TO THE KIGALI BUSINESS DISTRICT

UN EECN DE USOS MIXTOS HOLÍSTICO E INTEGRADO EN ÁFRICA INTERTROPICAL

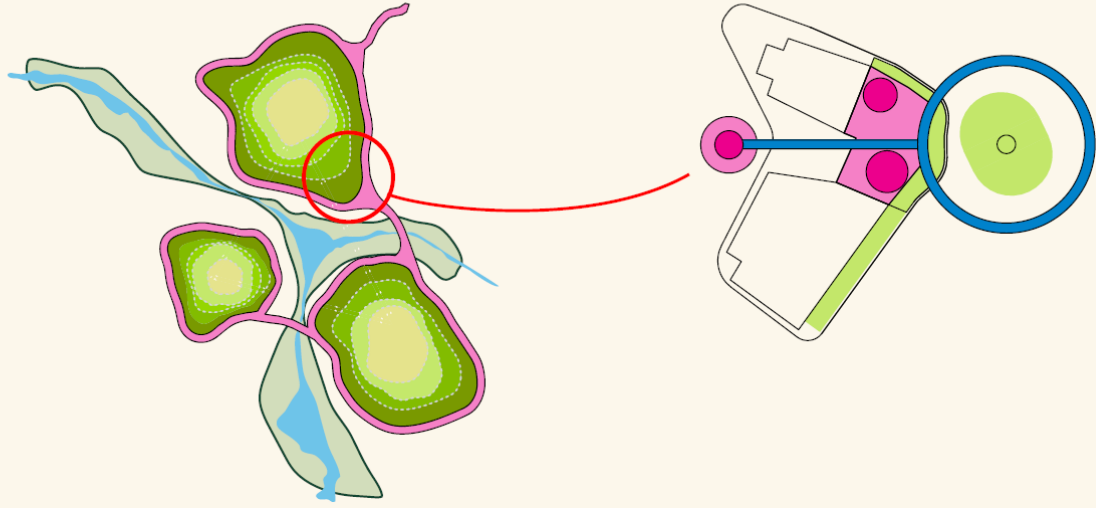
Carlos Arroyo

Arquitecto Director

Carlos Arroyo Architects

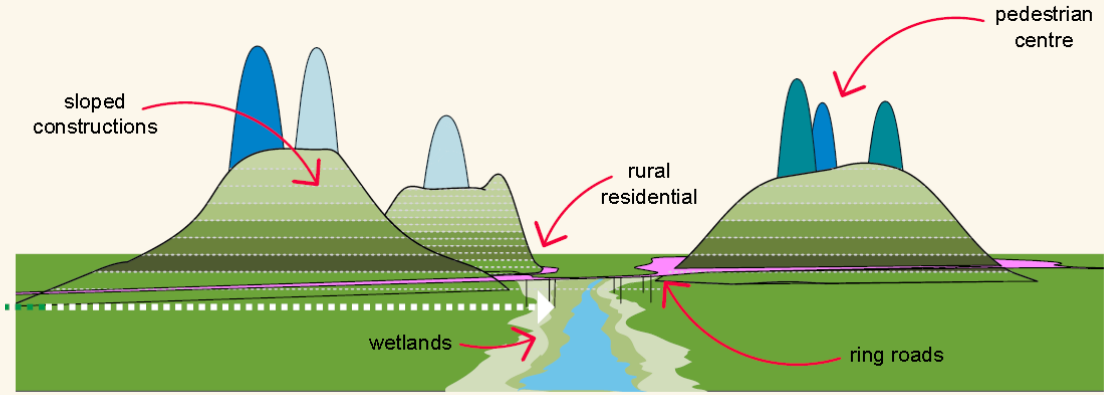


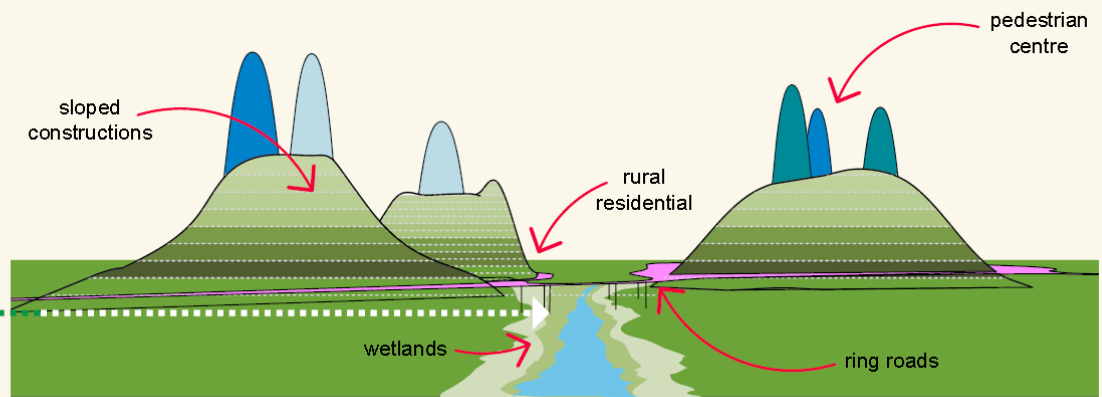
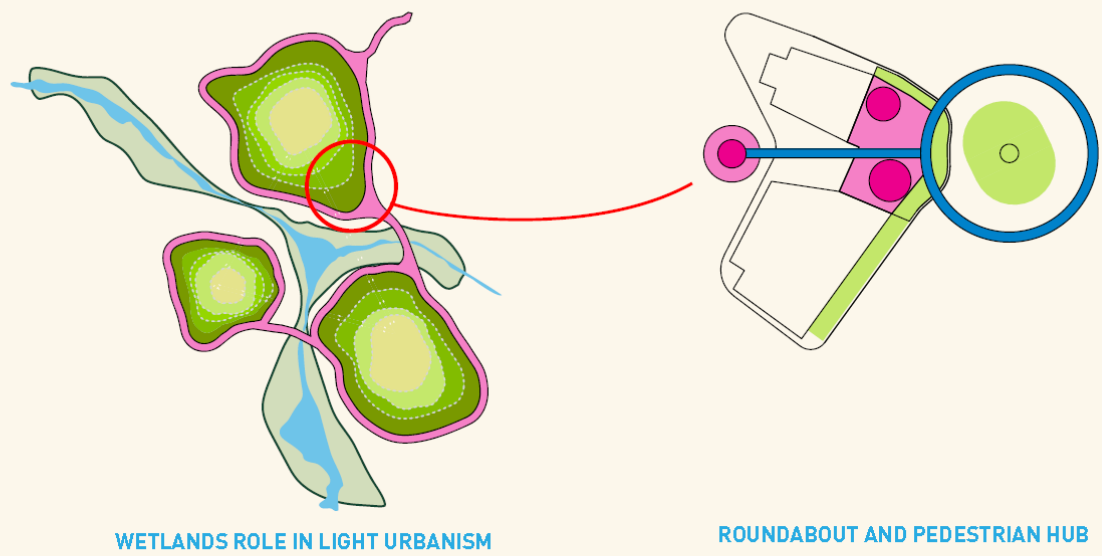
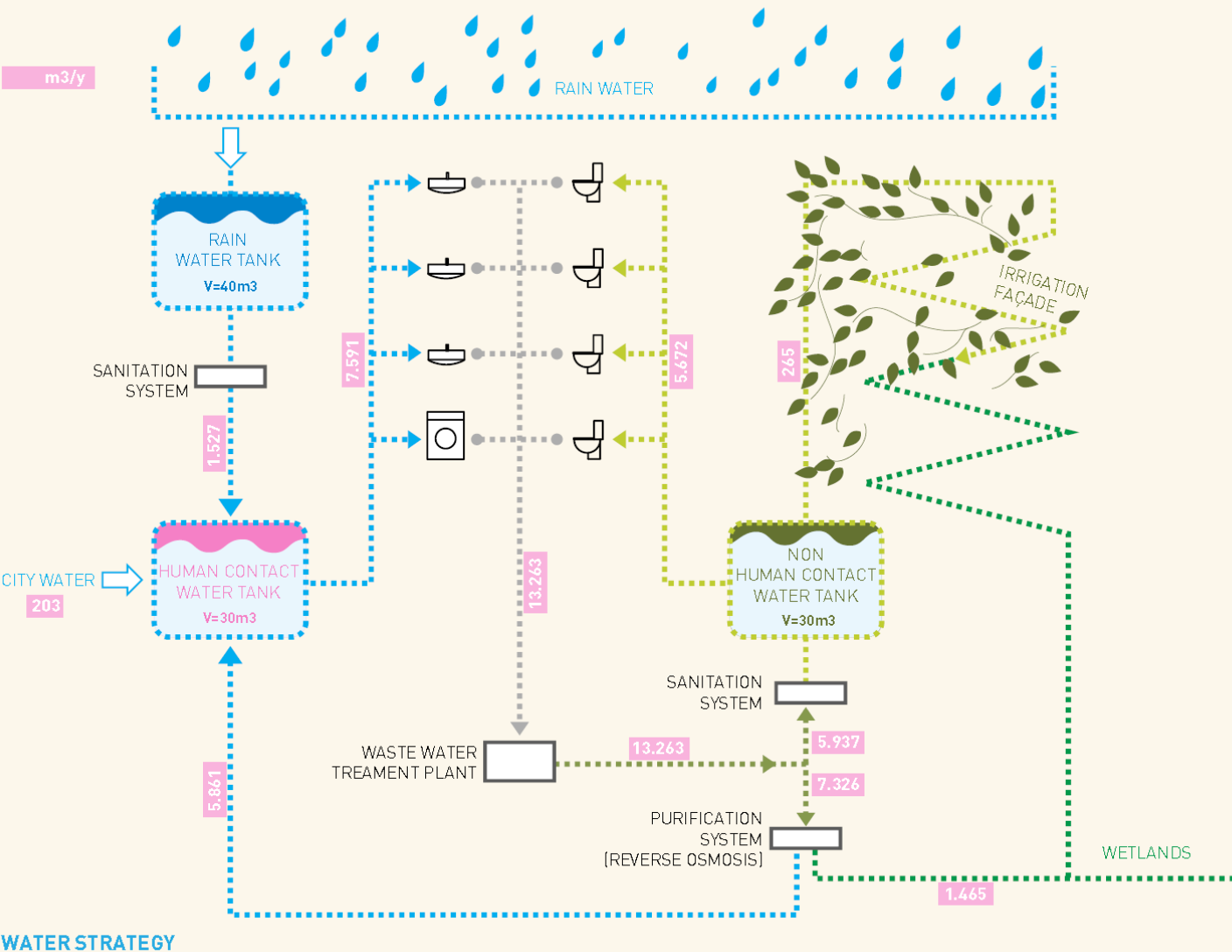


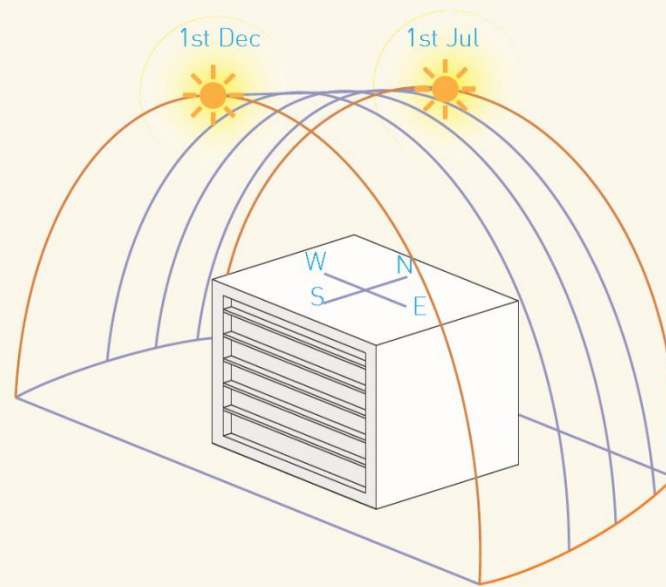
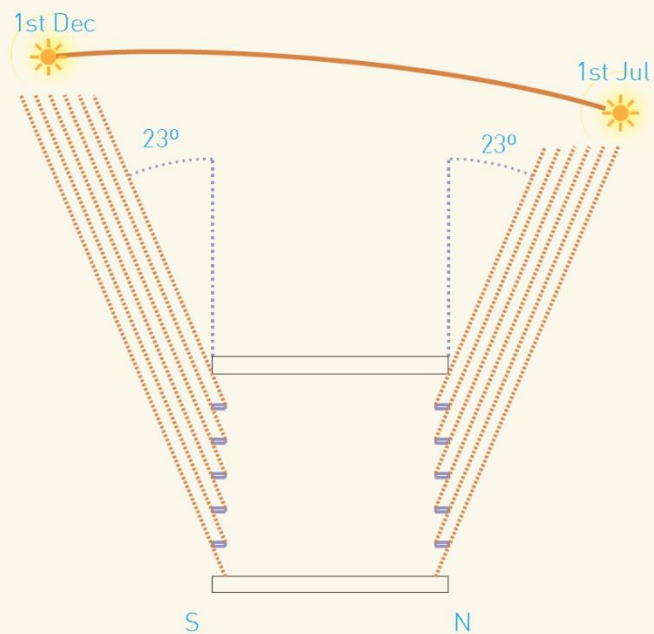


WETLANDS ROLE IN LIGHT URBANISM

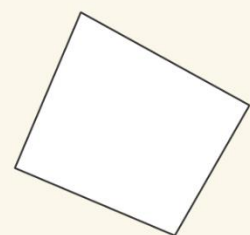
ROUNDBABOUT AND PEDESTRIAN HUB



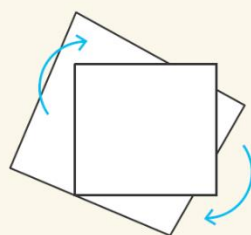




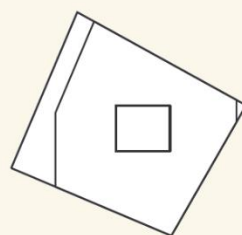
SUN AND ORIENTATION



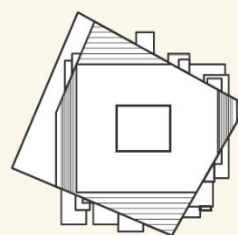
Site Oriented



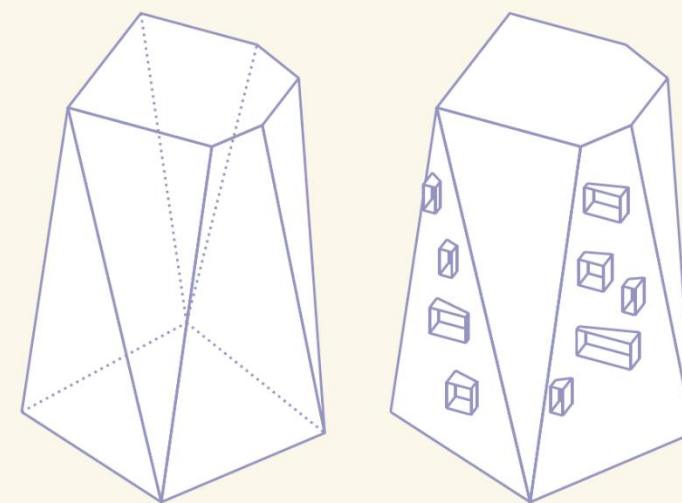
Optimal Solar Orientation



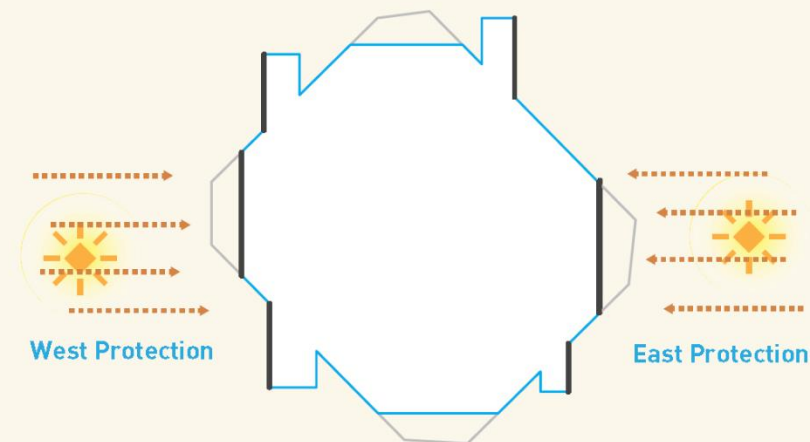
Lower Floors Oriented with Site

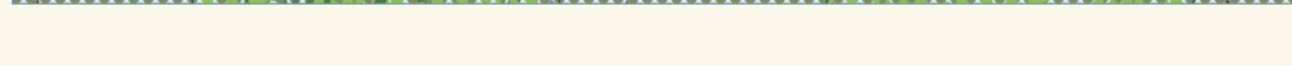
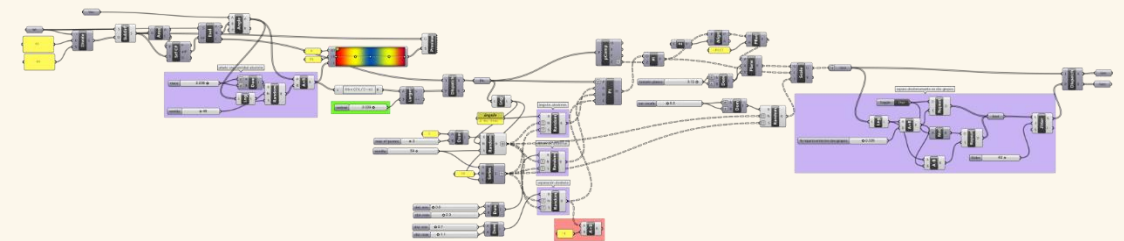


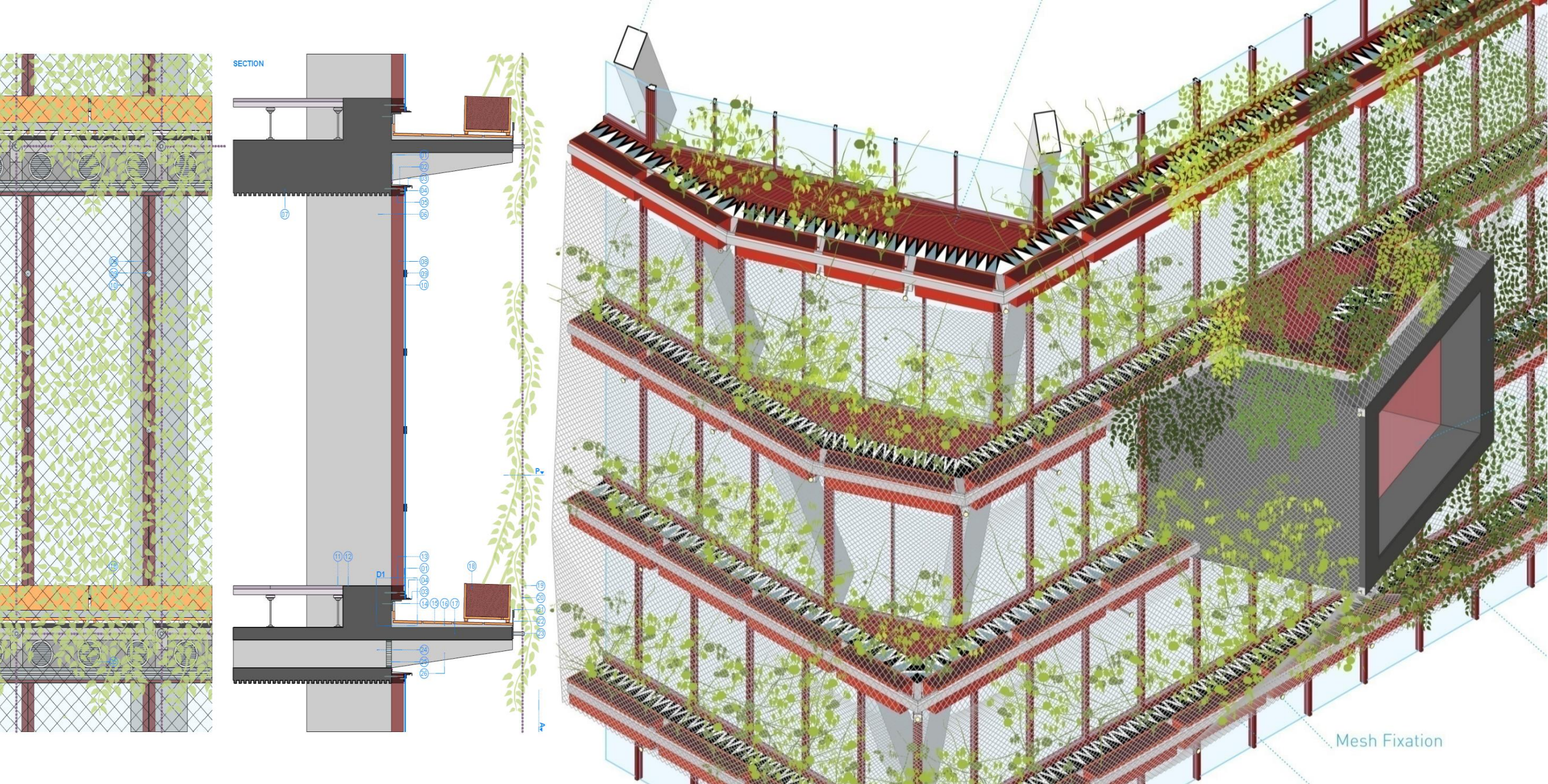
Top Floors Oriented with Sun

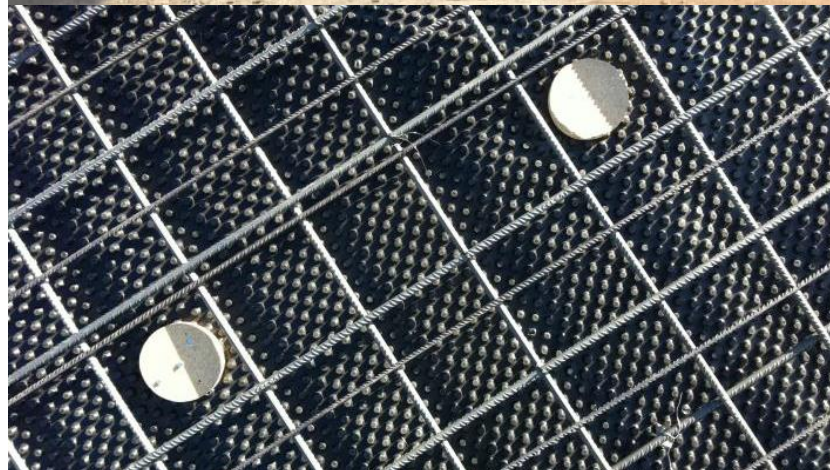
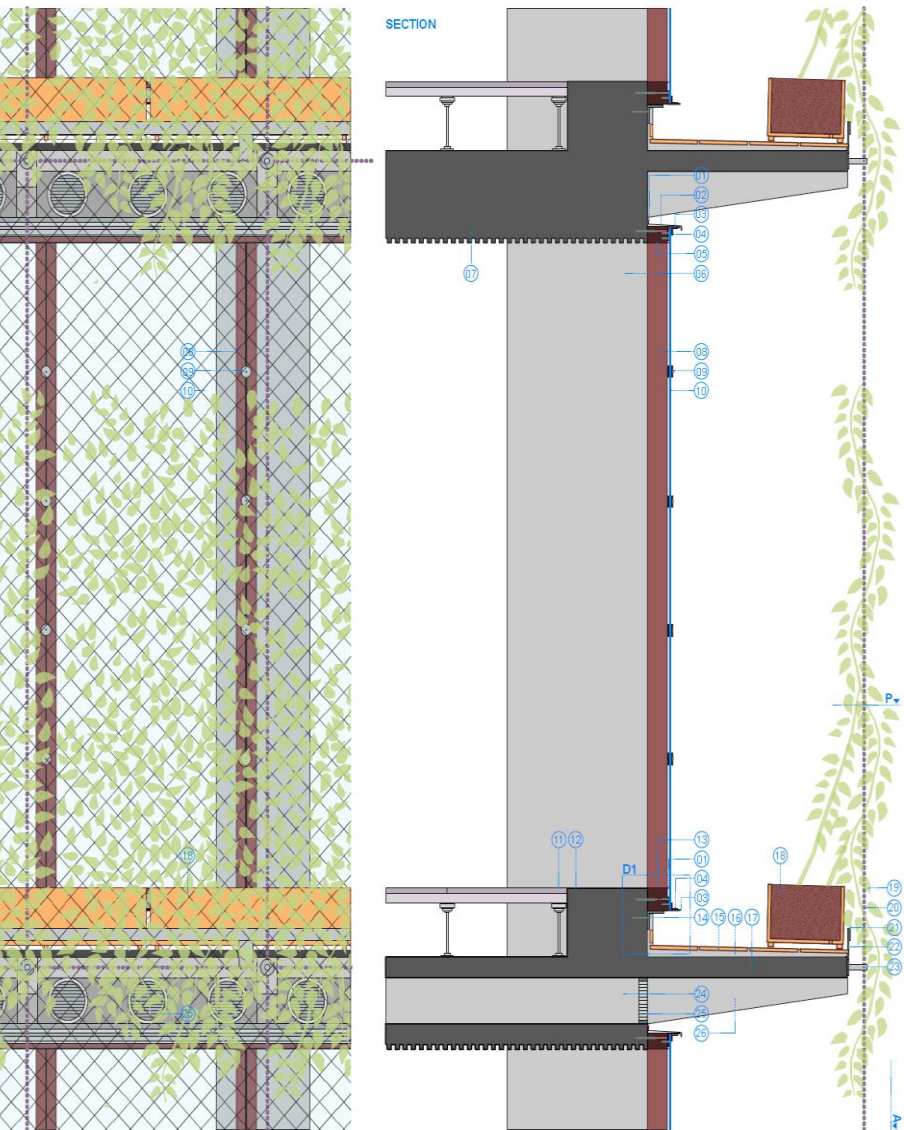


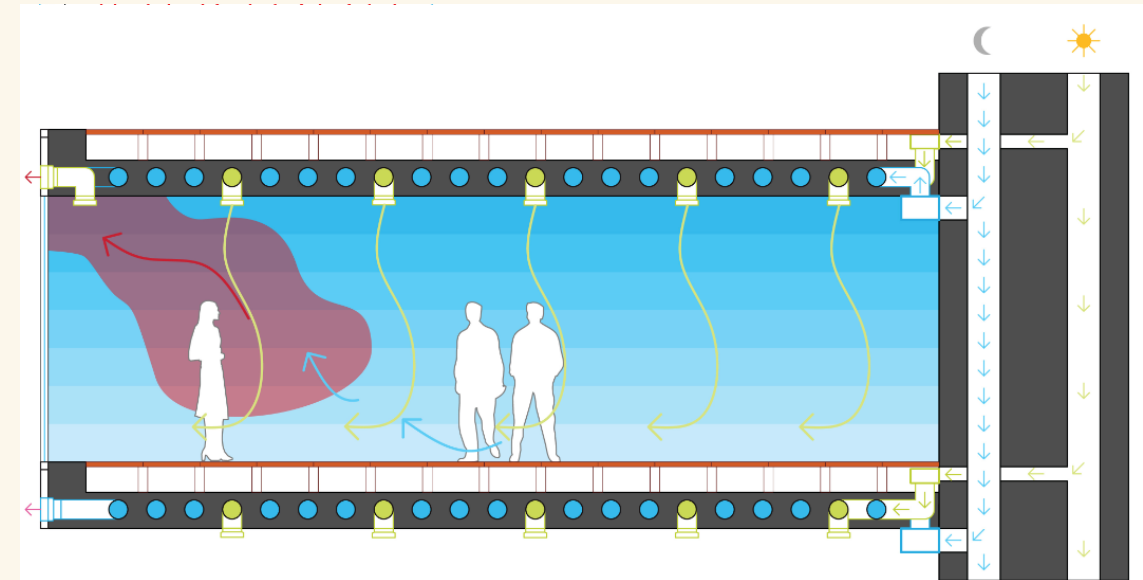
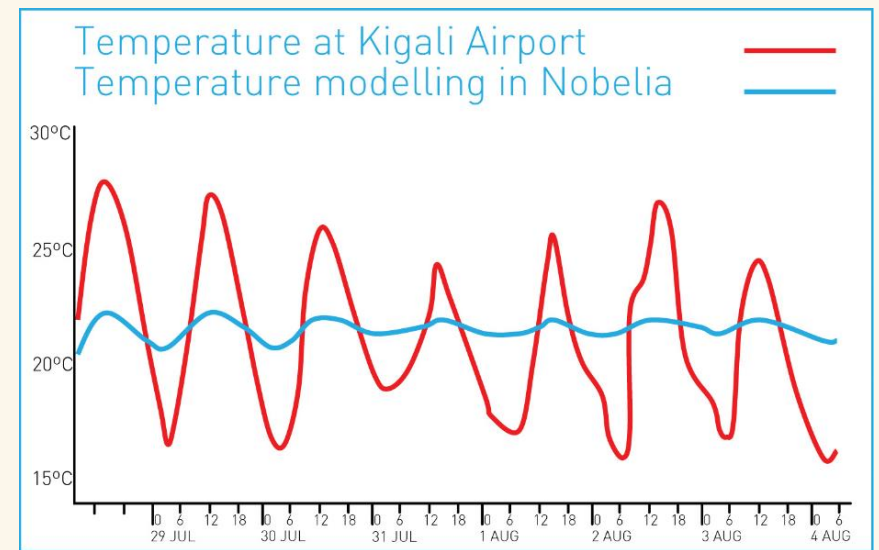
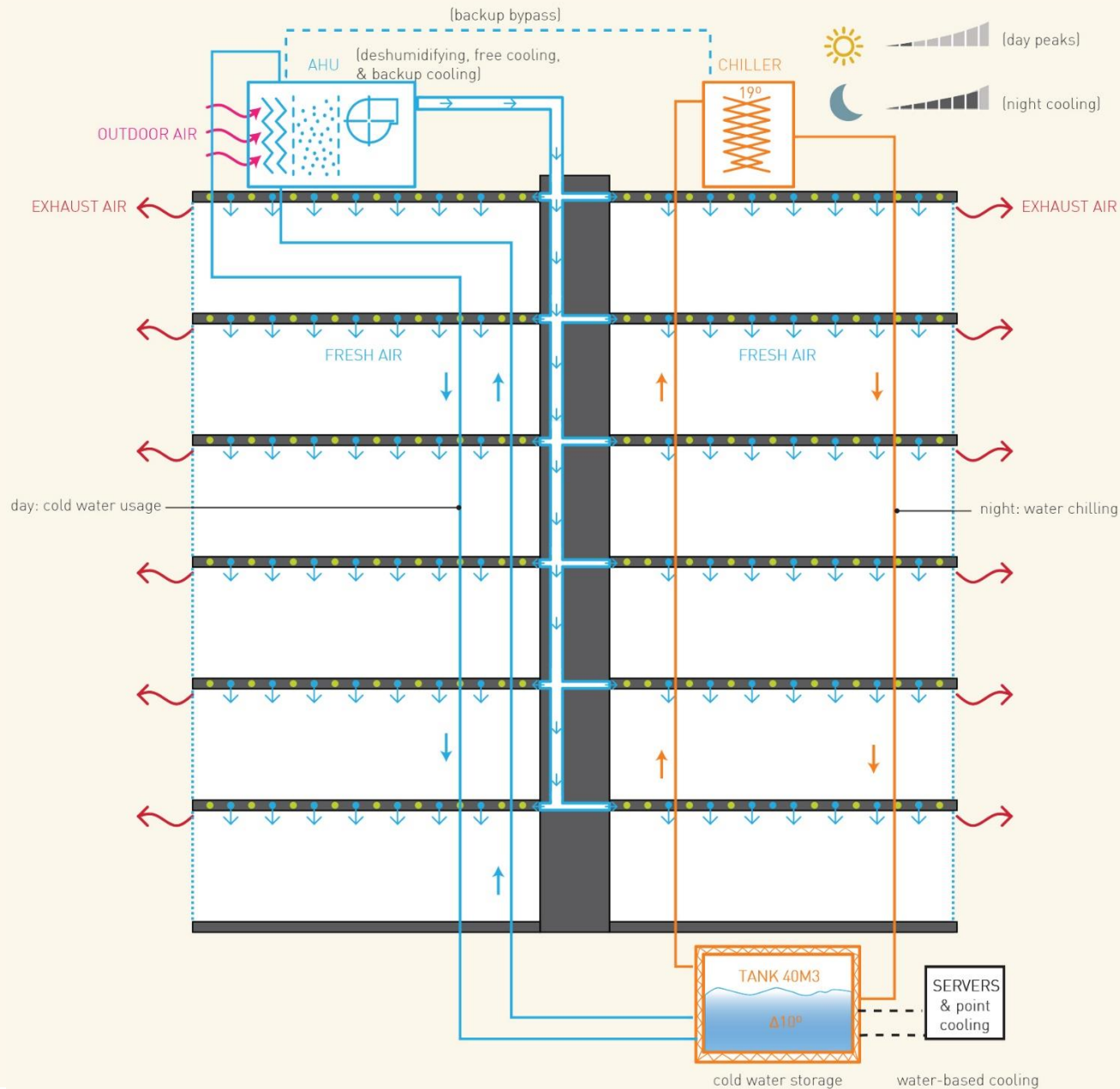
North Openness













DATOS GENERALES	
Emplazamiento	Kigali, Ruanda
Uso Característico:	Usos mixtos, oficina, comercio, residencial hotelero
Zona Climática:	Tropical
Obra Nueva / Rehabilitación:	Obra nueva
Superficie Construida:	40.000 m2 (Fase 1: 18.369 m2)
Fase del Proyecto:	Excavación de fase 1 iniciada

PRESUPUESTO	
NOBELIA:	950 USD/m2
Referencia Kigali:	1.100 USD/m2

INDICADORES	
Consumo Energía Primaria no renovable:	12,3 kWh/m2, año (según mix eléctrico de Rwanda)
Demanda Calefacción:	0
Demanda Refrigeración:	16,9 kWh/m2, año
Aporte Renovables:	3,8 kWh/m2, año (sistema fotovoltaico propio)
Emisiones CO2 Edificio:	6,4 kg CO2/m2,año (según mix eléctrico de Rwanda)





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