

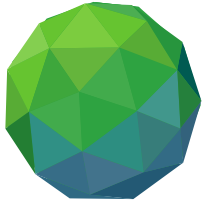
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The GCF water portfolio across subsectors

Thanks to -
Alastair Morrison
Water Sector Senior Specialist
Green Climate Fund

16 October 2018

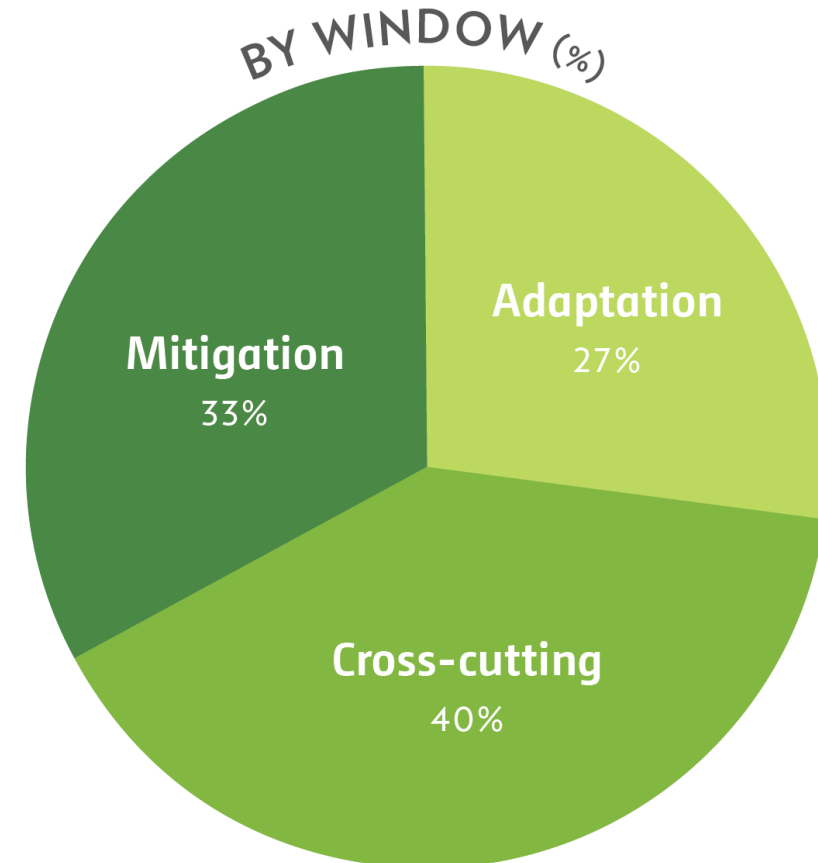
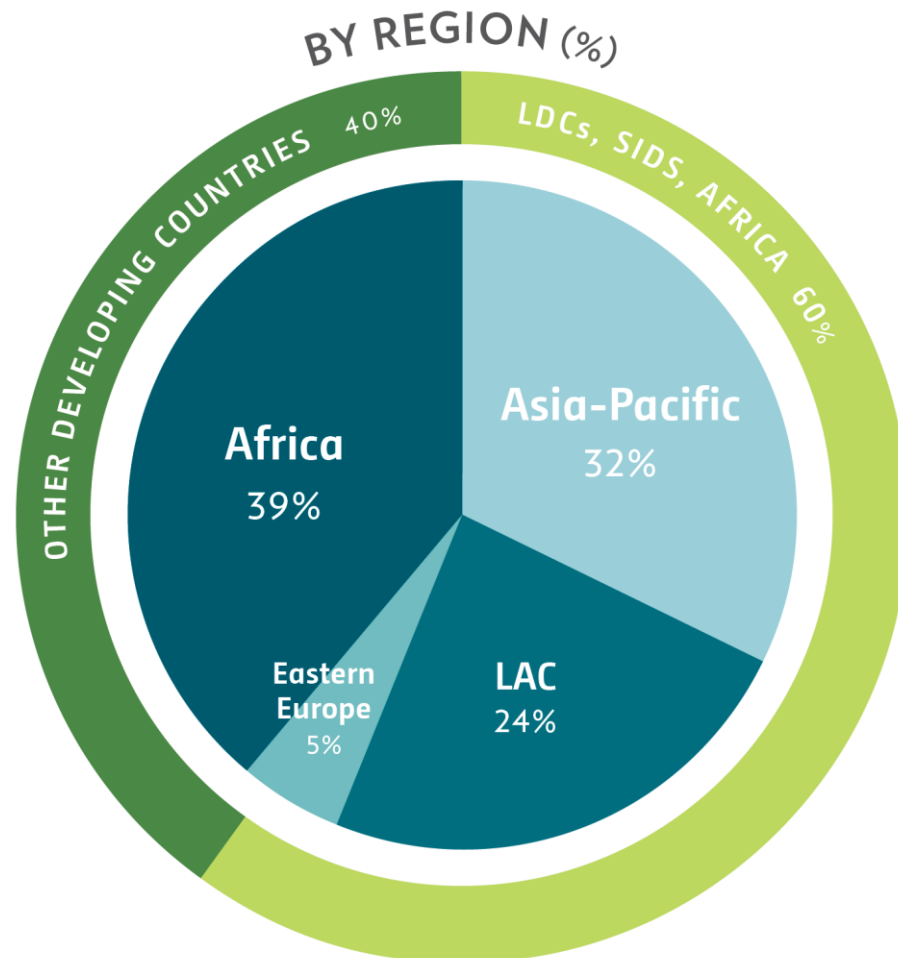
Part I: Introduction to the GCF water portfolio

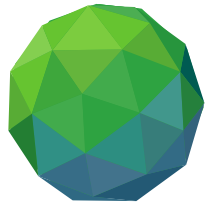


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Portfolio Overview

76 projects/programmes with USD 3.7 billion in GCF funding





GREEN CLIMATE FUND

A Diverse Network of Partners

59 entities accredited to date



Asian Development Bank



AGENCE FRANÇAISE DE DÉVELOPPEMENT



CONSERVATION INTERNATIONAL



European Bank for Reconstruction and Development



European Investment Bank



Entrepreneurial Development Bank



Food and Agriculture Organization of the United Nations



Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Inter-American Development Bank



International Finance Corporation WORLD BANK GROUP



INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT



GRUPE AGENCE FRANÇAISE DE DÉVELOPPEMENT



wfp.org



World Meteorological Organisation



THE WORLD BANK IBRD • IDA





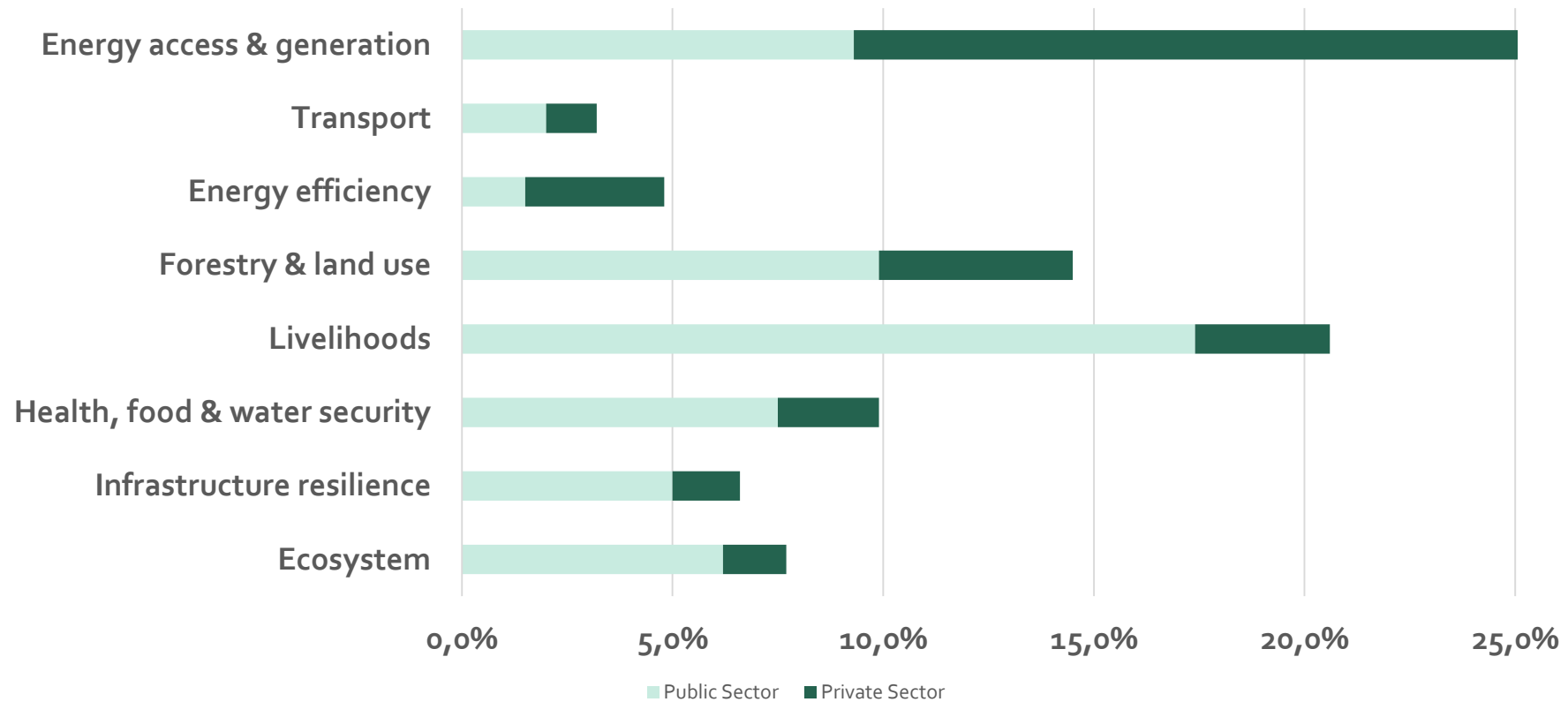
A quick progress report

- Over USD 3.7 billion committed to 76 projects
- Over \$600M of projects under way
- Around USD 150 million disbursed (up from \$11 million in 2016)
- 59 Accredited Entities, including 32 (over half) Direct Access entities
- 130 readiness applications approved for 92 countries at a value of over \$40m, over \$10m disbursed
- Up to \$3 million per country to support NAPs/adaptation planning
- \$500 million Request for Proposals on Mobilizing Funds at Scale
- \$500 million REDD+ results-based payments pilot
- Over 100 countries engaged on country programming



Composition of the growing portfolio

Requested GCF finance by Results Area (%)





GCF Portfolio – Approved Projects

1. All climate sectors:

- 74 projects
- \$3.7 bn GCF finance, \$12.6bn total
- 75M direct and 217M indirect beneficiaries

Climate and water:

- 21 projects
- \$737M GCF finance, \$2.2bn total
- 10M direct and 74M indirect beneficiaries



GCF Portfolio – Pipeline projects

2 All climate sectors:

- 156 projects
- \$7.7 bn GCF finance, \$20.1bn total

Climate and water sector:

- 41 projects
- \$1.5bn GCF finance, \$3.2bn total

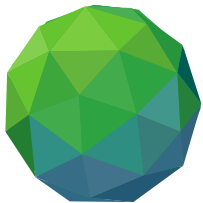


GCF Portfolio By Water Subsectors

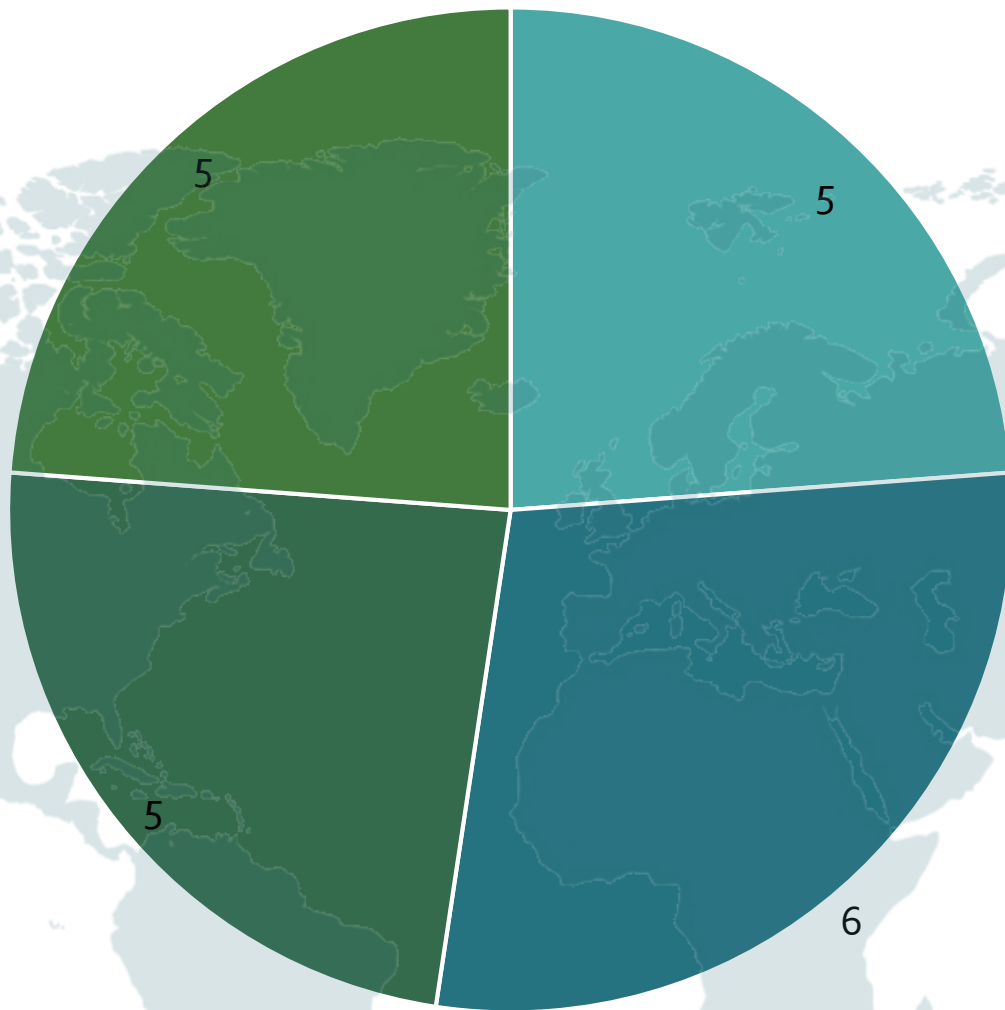
Subsector	# Approved projects	Total value approved (\$M)	# Pipeline projects
Coastal	5	141	9
Flood	3	153	7
Water supply	3	102	9
Drainage/sanitation/health	1	18	1
Irrigation	2	63	5
Hydropower	2	136	-
Ecosystems/wetlands	2	30	2
Drought	3	93	10

Number of approved projects

GCF Water Portfolio – By Region



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■ LAC

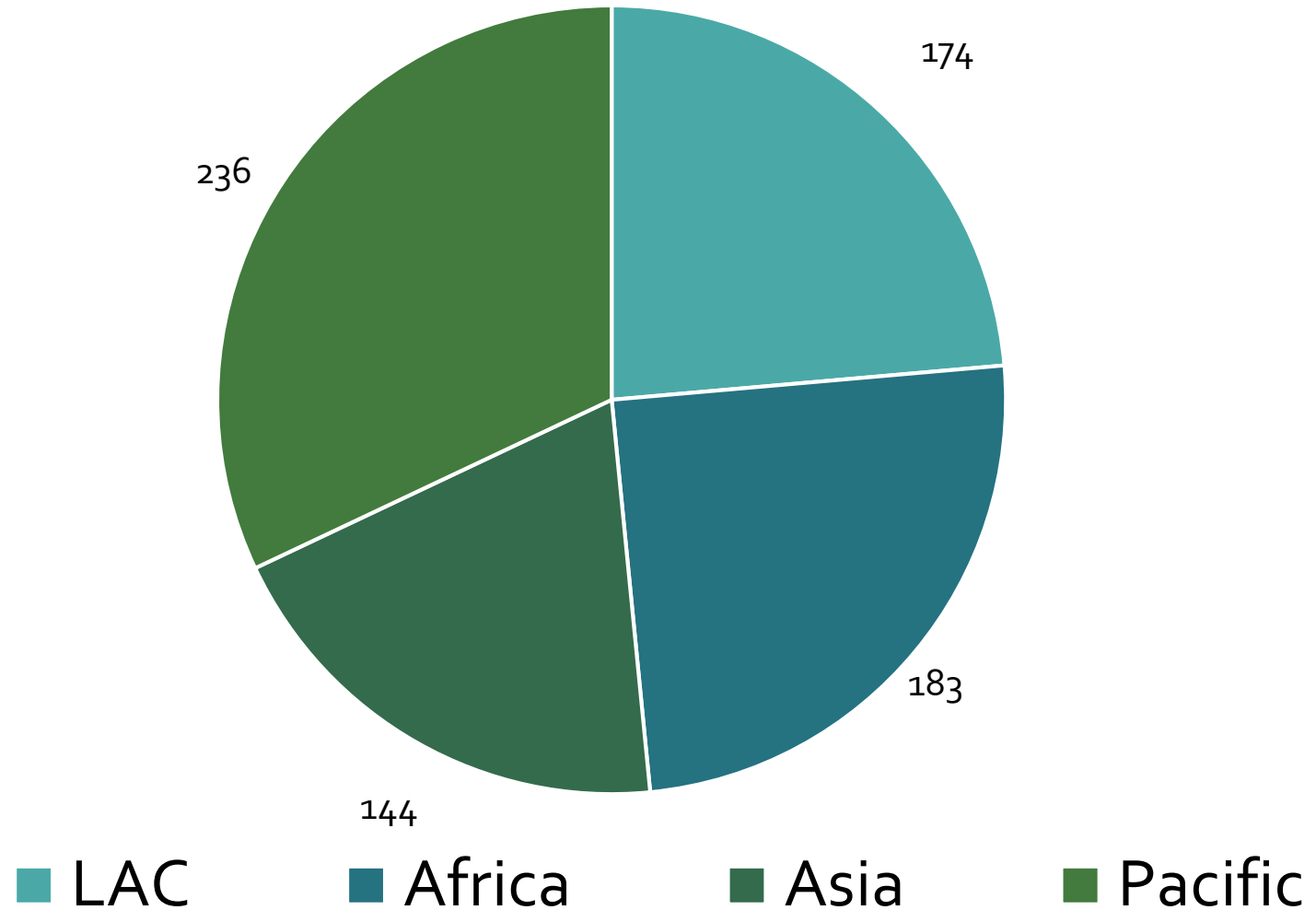
■ Africa

■ Asia

■ Pacific

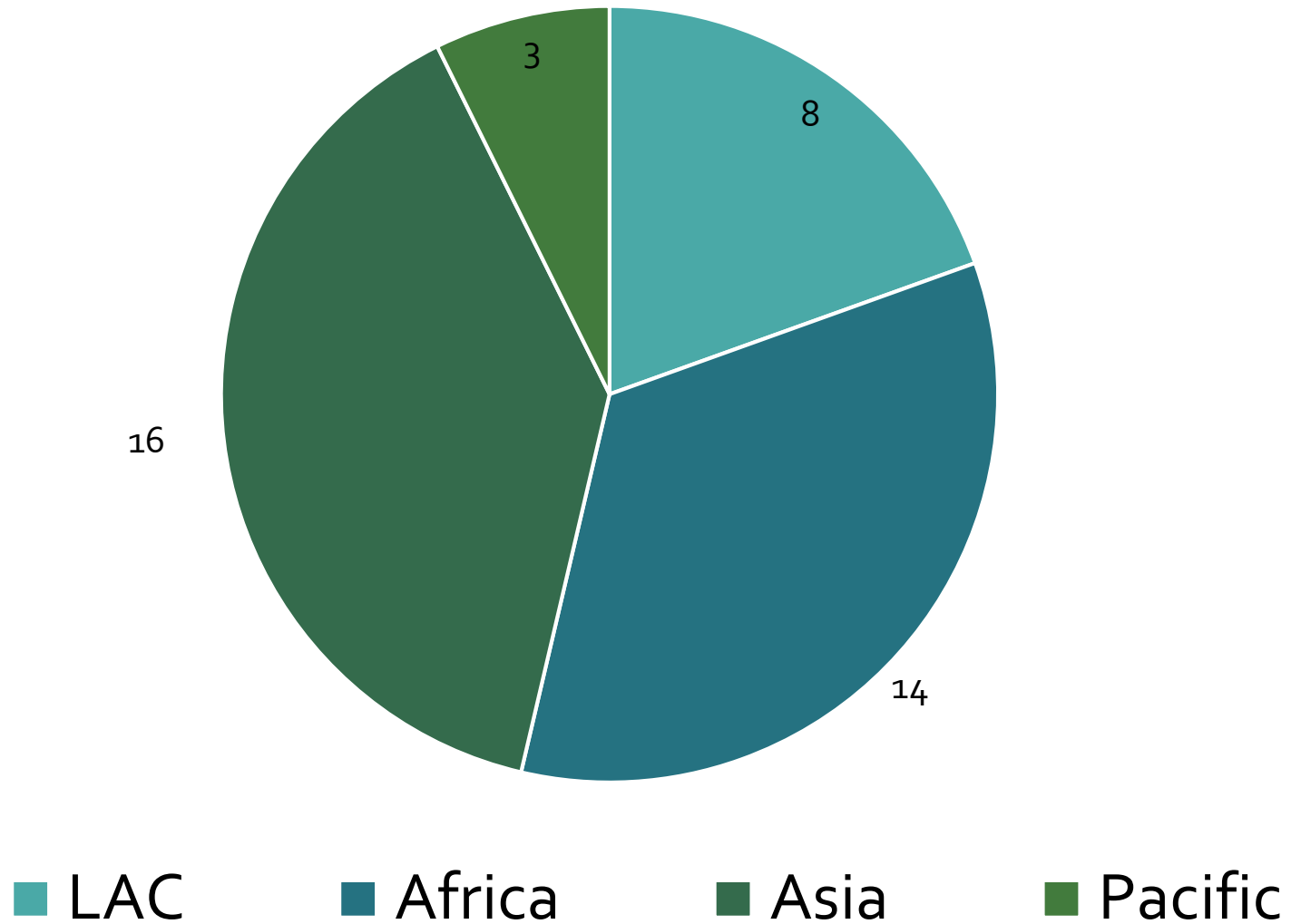


Finance for approved water projects (\$M)





Projects in the pipeline



Part II: Water subsectors and approaches



Coastal Zone Management

Coastlines affected by:

Sea Level Rise

Thermal expansion of the oceans

Melting icecaps

Land subsidence

Salination

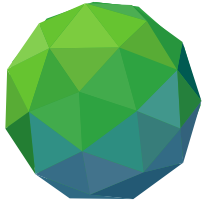
Increased storminess

Size and frequency of storms

Wave action

Erosion





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Coastal Zone Management

Possible responses include:

1. Resilient buildings
2. Livelihoods adaption
3. Coastal zoning
4. Insurance
5. Soft flood defences
6. Hard defences
7. Warning systems
8. Managed Retreat





Coastal Zone Management

Project issues

Land subsidence may be due to groundwater pumping

Erosion due to sand mining, or lack of sediment replenishment (dams)

Salination may be due to over-abstraction from coastal aquifers, or rivers

What is an appropriate standard of defence? Cost benefit ratio?

What is the residual risk behind coastal defences?

How much will maintenance cost and who is responsible for funding it?



Flood Management

Communities and ecosystems affected by:

Climate change

More intense and/or frequent rainfall

Maximum probable floods

and also:

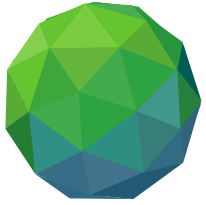
Upper catchment changes

Urbanisation

Inadequate drainage

Infrastructure failures



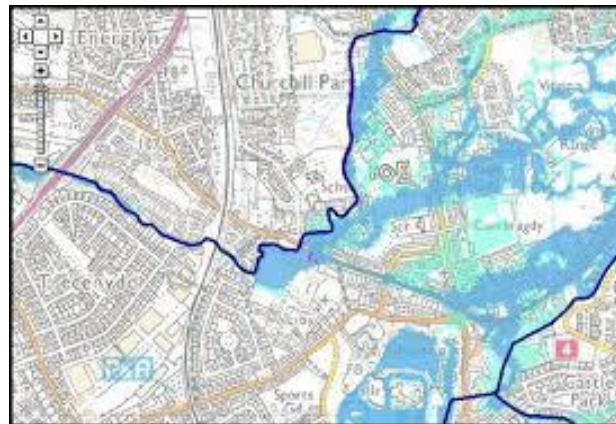


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Flood Management

Possible responses include:

1. Resilient infrastructure
2. Livelihoods adaption
3. Flood mapping
4. Land use zoning
5. Insurance
6. Soft flood defences
7. Hard defences
8. Flood warnings
9. Managed Retreat





Flood Management Project issues

Integrated catchment planning

Management of the upper catchment

Making space for water - and impacts downstream

What is an appropriate standard of defence? Cost benefit ratio?

What is the residual risk behind flood defences?

How much will maintenance cost and who is responsible for funding it?



Water Resources

Communities and ecosystems affected by:

Climate change:

Extended and more frequent droughts

and:

Population growth

Industry and tourism

Per capita usage growth

Overabstraction

Pollution





Water Resources

Possible responses include:

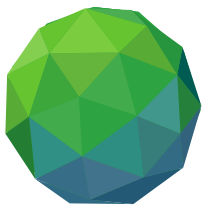
Demand management

1. Leakage reduction
2. Water conservation
3. Re-use & recycling
4. Efficient irrigation

Supply enhancement

1. More storage
2. New supply infrastructure





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Water Conservation

Many options to balance water supply and demand:

DEMAND SIDE

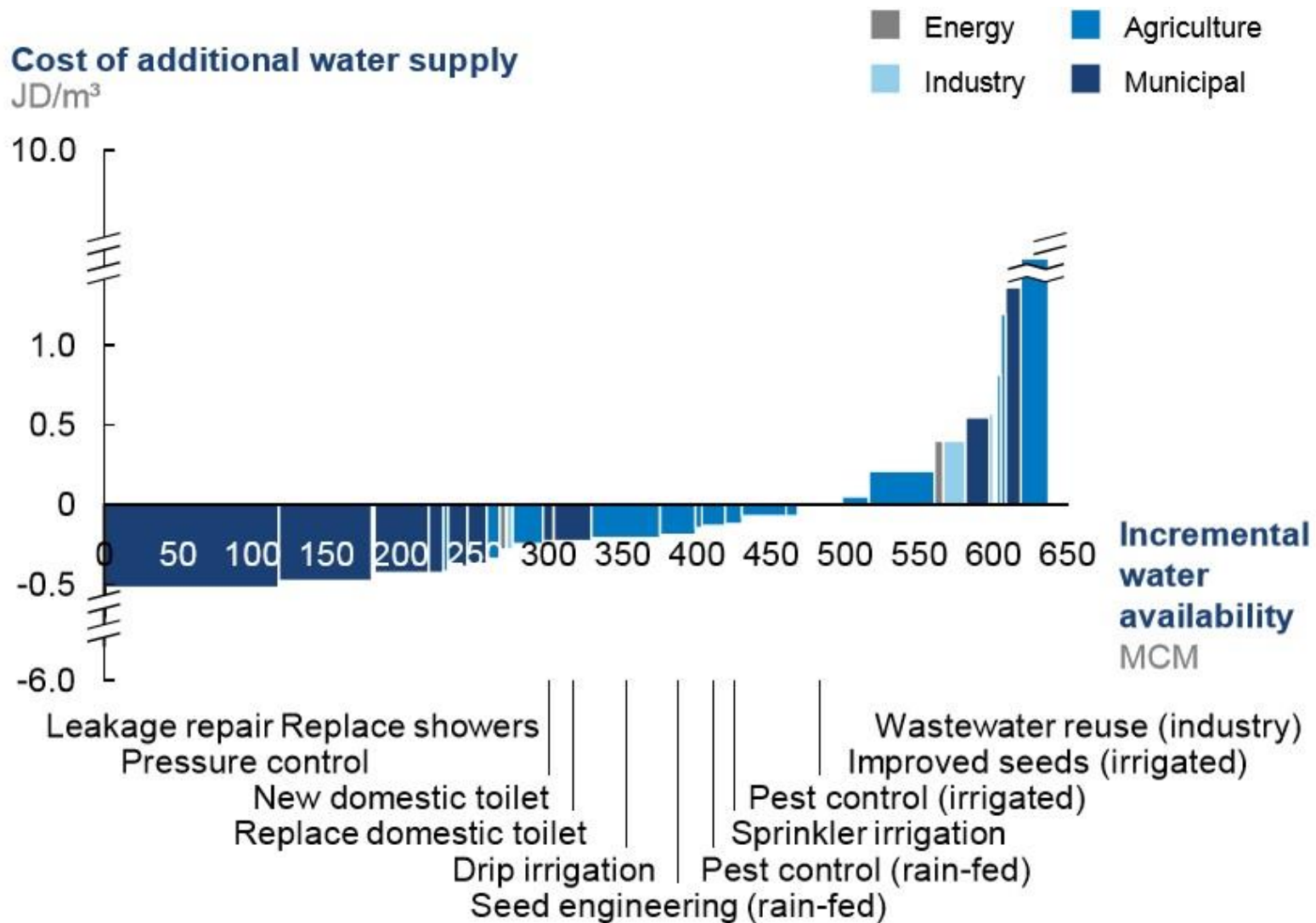
Cost \$/m³ varies considerably

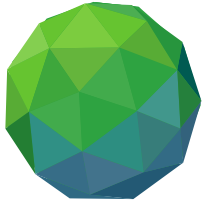
Many water savings measures also save money and reduce CO₂ emissions

Private sector

Loans and revolving funds?

Cost of additional water supply
JD/m³





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Water Supply

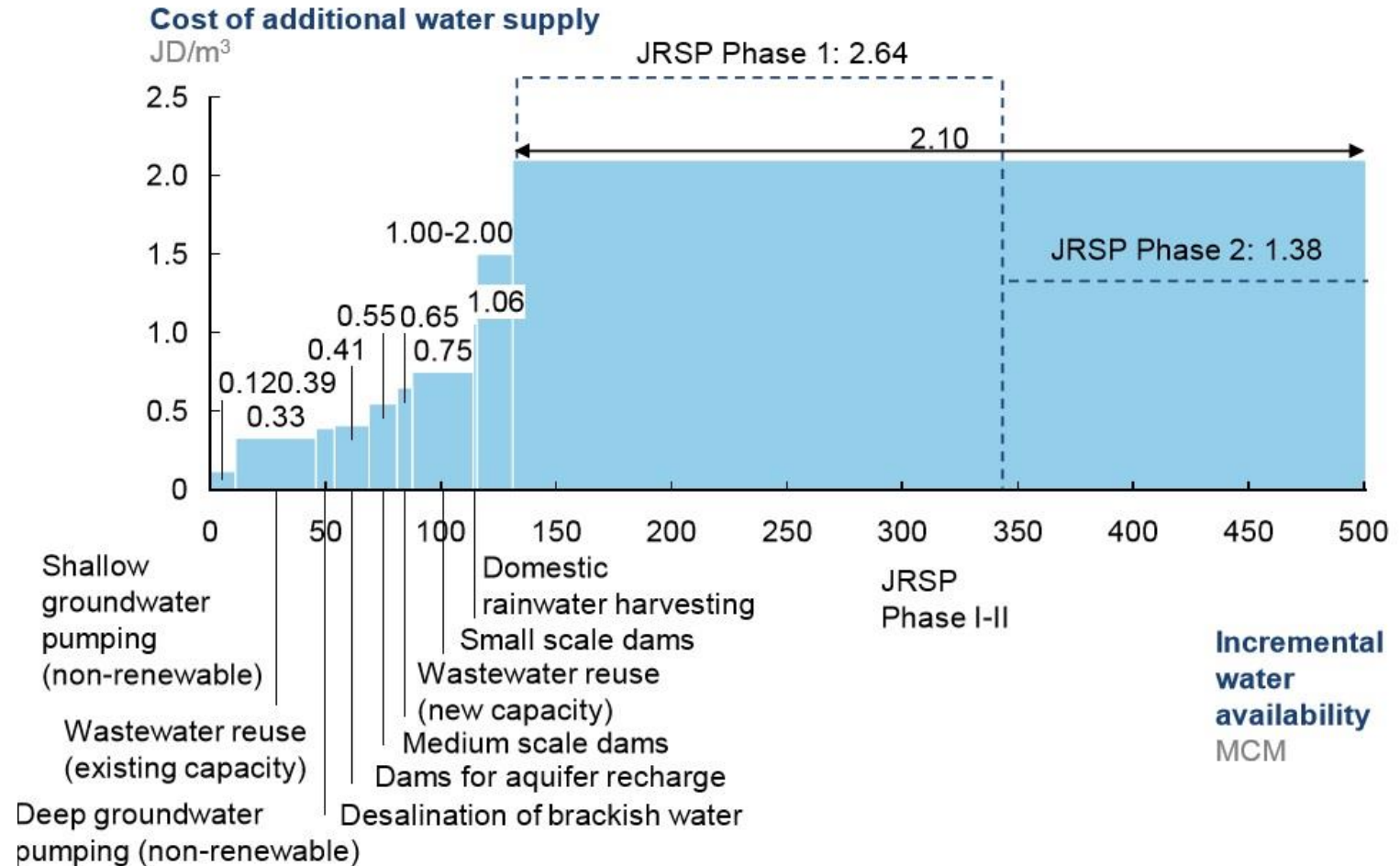
Different sources provide different amounts at significantly different costs:

SUPPLY SIDE

Carbon footprint?

ESS acceptability?

Cost curve of solutions for water supply





Water Resources

Project issues

Source protection

Water Quality

Energy use

Appropriate Executing Entity

Tariffs, willingness to pay and cost recovery

Operation and maintenance

Maximising Environmental and social co-benefits



Sanitation

Adaptation

Resilient infrastructure:

Especially during floods

Combined sewer overflows and intense rainfall

Mitigation

Methane capture
and biogas use

Less energy use in WWTW





Sanitation Project issues

Climate rationale

Social co-benefits

Co-finance

Scalability

Costs per tonne CO₂ (for mitigation)

Operation and maintenance





Hydropower

Dam rehabilitation and construction

2 projects to date:

Solomon Islands

Tajikistan

Enhancing dam safety





Hydropower Project issues

Social and Environmental Safeguards – likely to be Category A

Cost per tonne CO₂

Market for power

Dam break risks and response

Probable maximum floods under climate change



Absent from the portfolio

Water and health

Water and temperature changing distribution of water-borne, -washed –based and -related diseases



Navigation

As a low emissions form of transport





Cross-cutting Project issues 1

What is the 'natural' situation, and how is climate change making it worse?

Selection of options

Vulnerability and adaptive capacity

Carbon footprint of all projects

Operations and maintenance



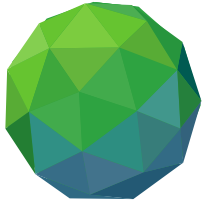
Cross-cutting Project issues 2

Appropriate Executing Entity

Public sector or private sector?

Right financial instrument

Scalability and the Paradigm shift



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Approved Projects

<http://www.greenclimate.fund/projects/browse-projects>










PORTFOLIO

BROWSE PROJECTS

RELATED DOCUMENTS

- Investment Framework
- Investment Criteria
- Proposal Approval Process
- Results Management Framework (RMF)

BROWSE RECENT PROJECTS

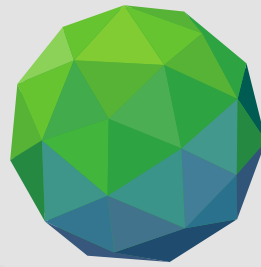
 <p>PROJECT FP037 Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa</p>	 <p>PROJECT FP036 Pacific Islands Renewable Energy Investment Program</p>	 <p>PROJECT FP035 Climate Information Services for Resilient Development in Vanuatu</p>
 <p>PROJECT FP034 Building Resilient Communities, Wetlands Ecosystems and Associated Catchments in Uganda</p>	 <p>PROJECT FP033 Accelerating the Transformational Shift to a Low-Carbon Economy in the Republic of Mauritius</p>	 <p>PROJECT FP030 Catalyzing private investment in sustainable energy in Argentina - Part 1</p>
 <p>PROJECT FP029 SCF Capital Solutions</p>	 <p>PROJECT FP028 Business loan programme for GHG emissions reduction</p>	 <p>PROJECT FP027 Universal Green Energy Access Programme</p>



Water Sector Development

Sector Guidelines to be developed:

- What type of climate and water projects are we seeking
- What criteria should we use to assess them?
- Where does GCF comparative advantage lie?
- Which partner is best placed to implement types of projects?



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