

Clean Air with Improved Agricultural Crop Residue and Biomass Management

ADB

6 June 2024 • Joy~Nostalg,
Manila, Philippines



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Carbon markets for agriculture and natural resources sector: Opportunities and Challenges

06/06/2024

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AGENDA



- Principles of Emission Trading
- Opportunities and Challenges
- Project Certification Pathway



Emission Trading as a Public Policy

- Cap to limit GHG emissions
 - Upper value for permissible emissions over a period
 - Sectors, geographic regions to be limited
- Instruments to trade and meet the cap limit:
 - Allowances/ Permits
 - Transfer of carbon rights
 - Offsets (Project based)

International Pledges:

- Paris Agreement (2015)

Regional Pledges:

- European Union Emissions Trading System

National Policies:

- China, Mexico, New Zealand, Australia

Offsetting under Paris Agreement:

- Bilateral agreements under Article 6.2
- International pledges under Article Article 6.4



Emission Trading as a Company Policy

- Companies set their own targets over a period
 - Scope 1 and Scope 2 emissions
 - Scope 3 emissions, supply-chain
- Carbon Accounting Standards
 - GHG Protocol
 - ISO 14064
 - PAS 2060

Voluntary Pledges:

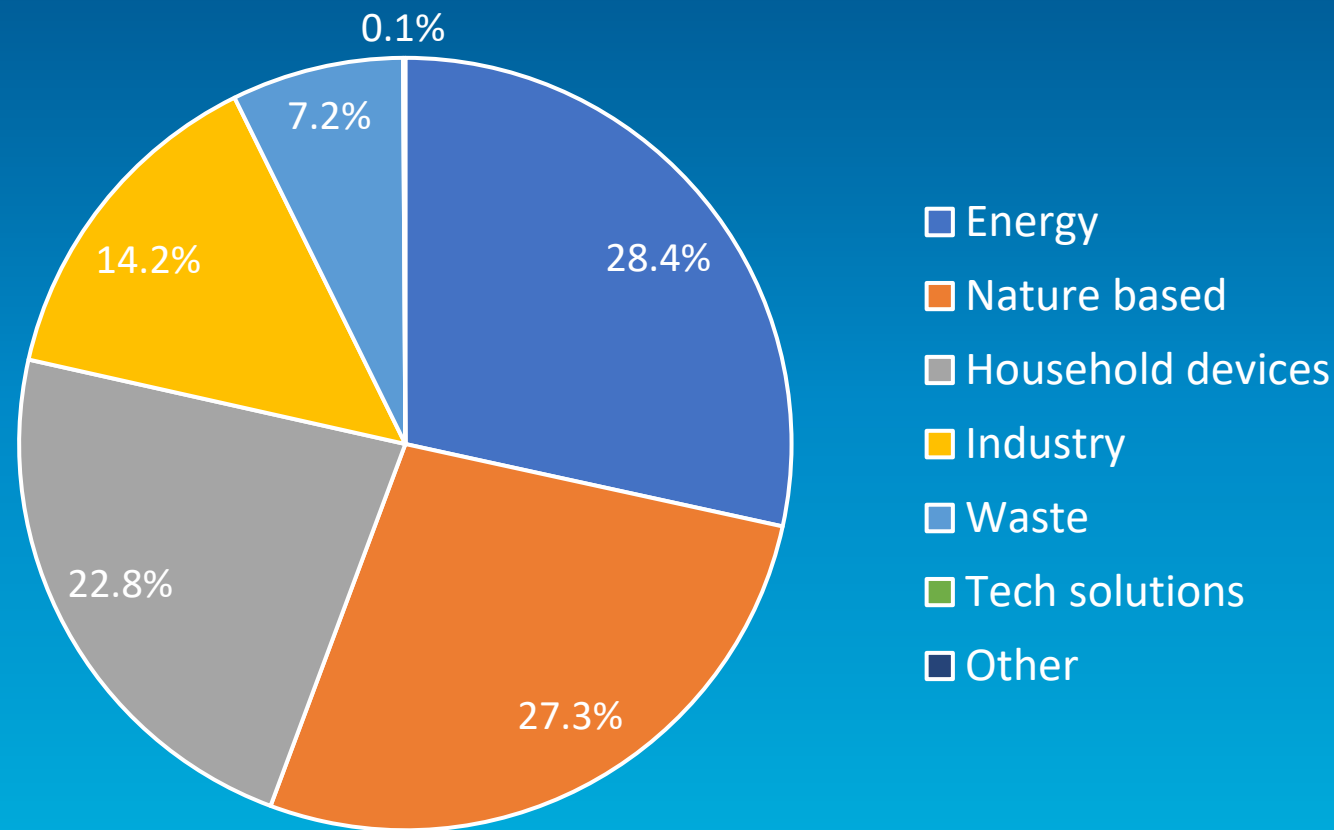
- Carbon Disclosure Project
- Science-based targets
- Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

Offsetting under Voluntary Carbon Markets:

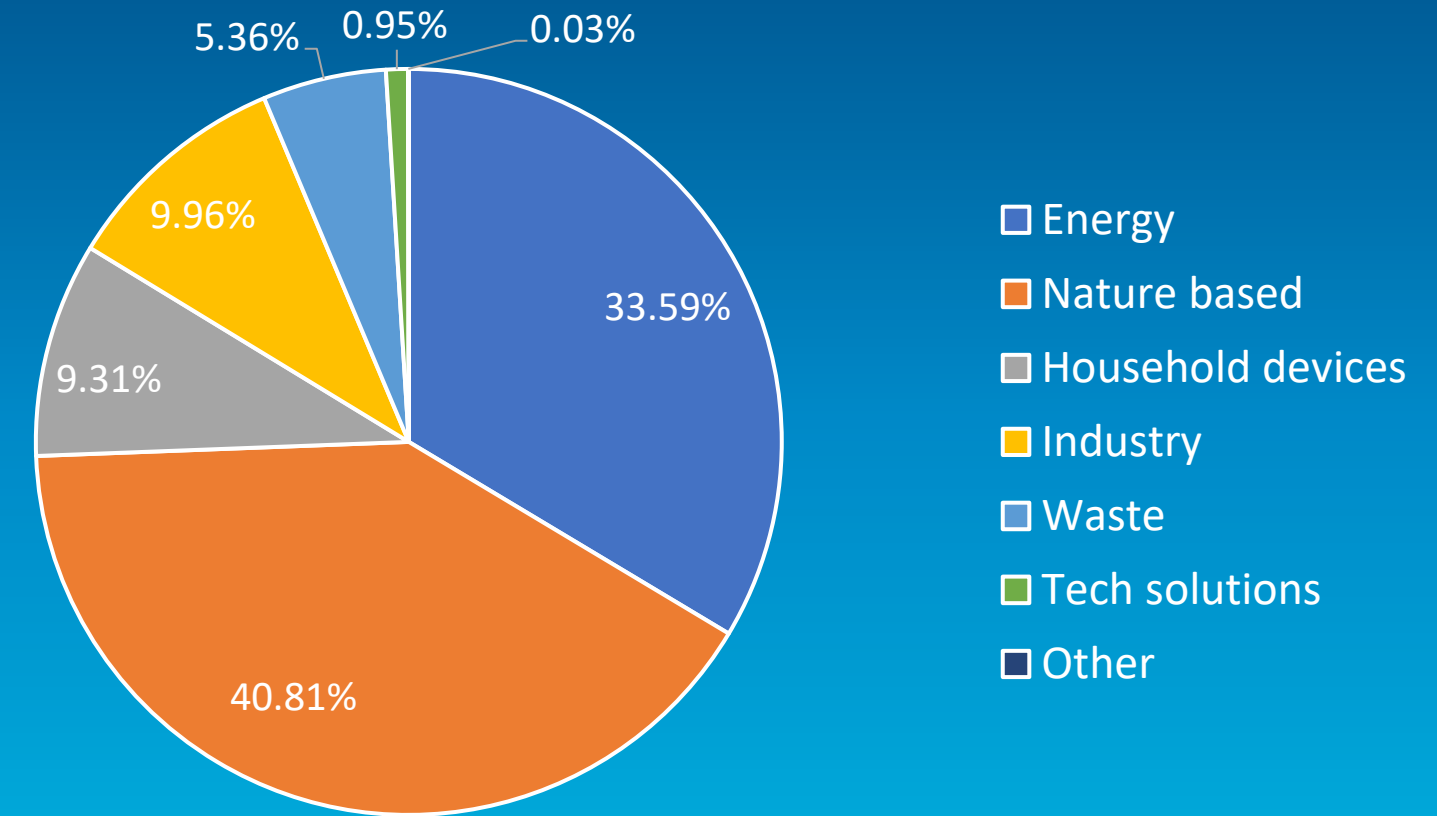
- VERRA (53%)
- Gold Standard (27%)
- American Carbon registry (14%)

Voluntary Carbon Markets

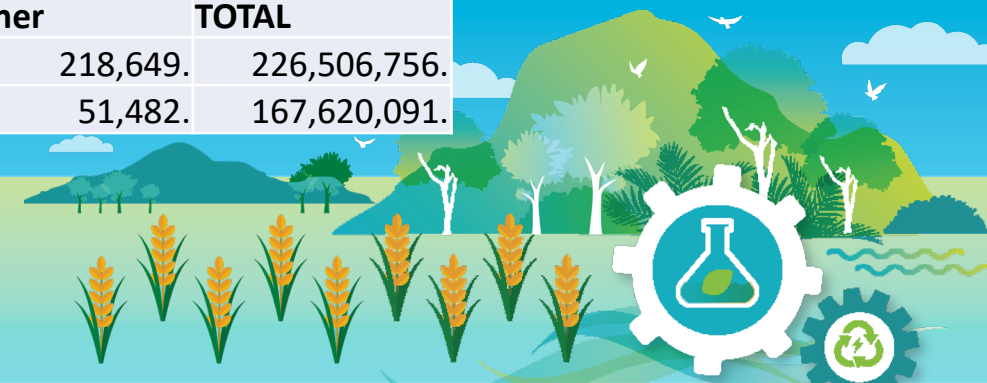
Credit issuance by project type, 2023



Credit retirements by project type, 2023

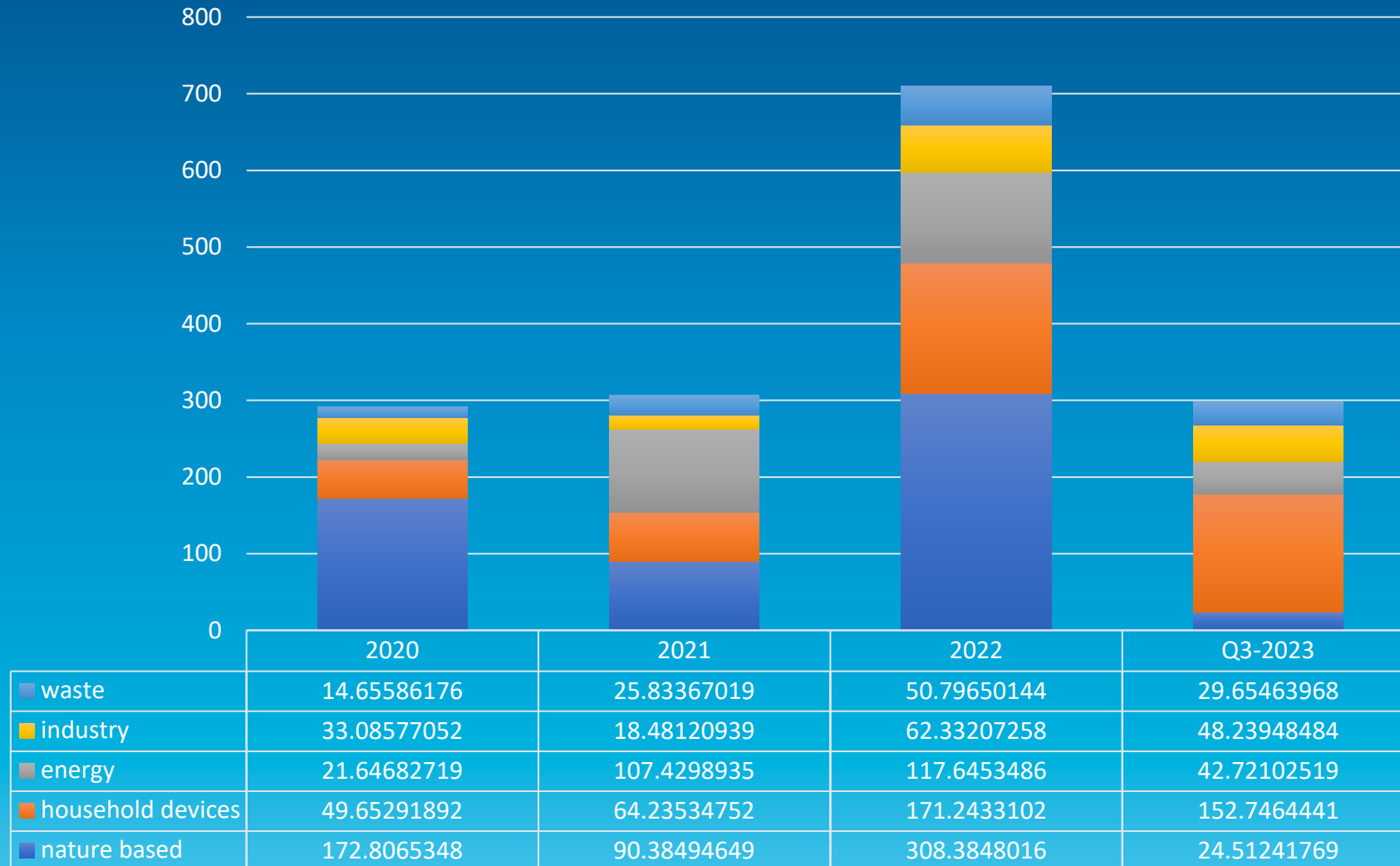


	2023 Energy	Nature based	Household devices	Industry	Waste	Tech solutions	Other	TOTAL
Issuance	61,728,820.	64,379,619.	51,722,552.	32,156,125.	16,300,991.-	-	218,649.	226,506,756.
Retirement	56,305,786.	68,401,099.	15,597,375.	16,689,730.	8,980,368.	1,594,251.	51,482.	167,620,091.



Voluntary Carbon Markets

Trade Volume (Million USD)



Years	Retired Credits
2020	97,987,423.
2021	164,601,586.
2022	166,183,005.
2023	167,620,091.



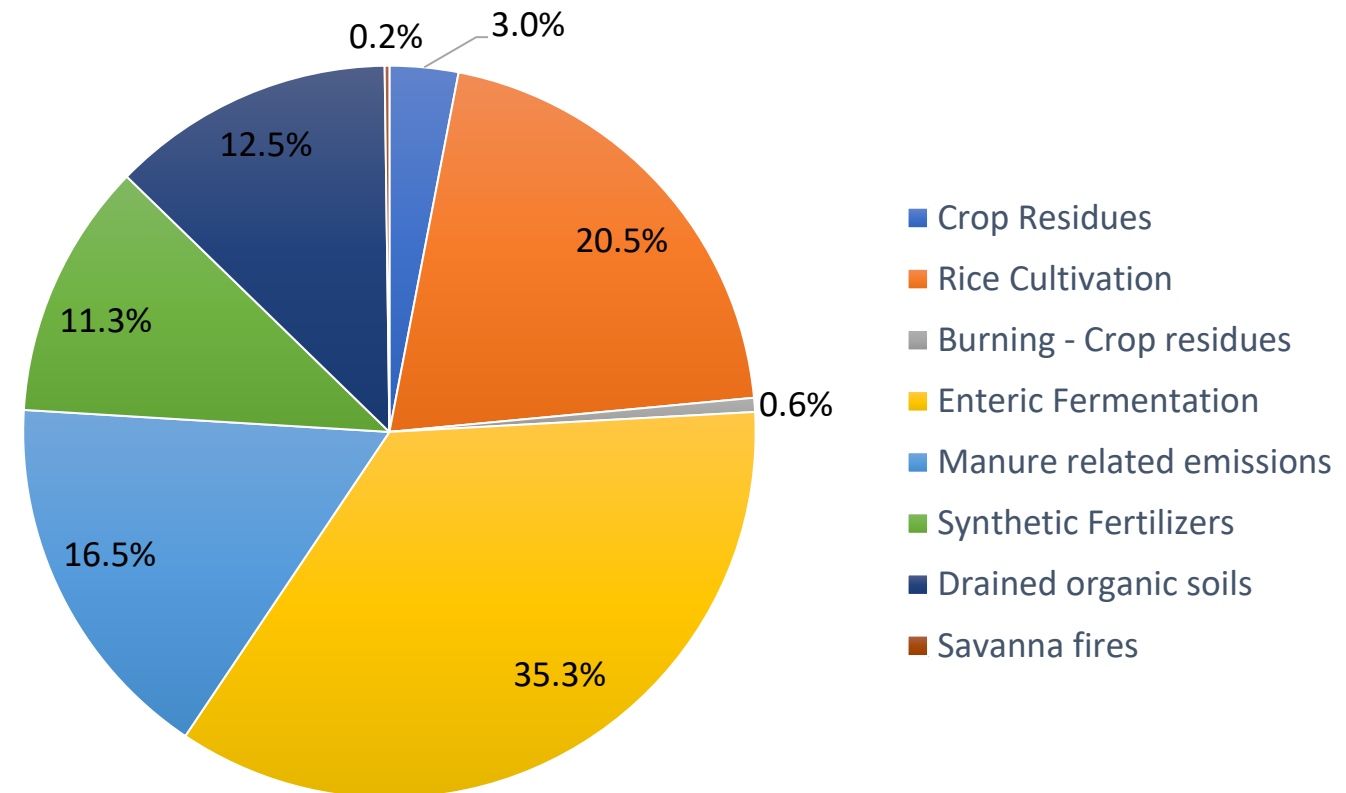
Opportunities and challenges



MAIN EMISSION SOURCES- Agriculture

- Non-CO2 emissions from crop and livestock activities within the farm gate
- Carbon losses from land use – mainly due to deforestation and peatland degradation
 - World total 6.86 Gt CO₂e
 - Asia total 2.94 Gt CO₂e
 - Enteric fermentation has the highest share in GHG emissions from agriculture in Asia

Contribution of crops and livestock activities to GHG emissions from agriculture in Asia -2021 (FAOSTAT)



Opportunities and challenges



By 11 March 2024	Credits Issued		Credits Remaining		# of Projects
Agriculture (TOTAL)	30,357,916	1.5%	14,909,408	1.7%	961
Bundled Compost Production and Soil Application	0	0.0%	0	0.0%	2
Carbon Mineralization	0	0.0%	0	0.0%	1
Compost Addition to Rangeland	0	0.0%	0	0.0%	1
Feed Additives	3,303	0.0%	2,194	0.0%	12
Improved Irrigation Management	396,504	0.0%	0	0.0%	16
Manure Methane Digester	24,478,657	1.2%	11,698,548	1.3%	448
Nitrogen Management	663	0.0%	3	0.0%	6
Rice Emission Reductions	4,560,597	0.2%	2,909,591	0.3%	294
Solid Waste Separation	344,517	0.0%	85,836	0.0%	15
Sustainable Agriculture	573,675	0.0%	213,236	0.0%	166

Top 5 Countries:

1. China : 458 Projects, 14.6 M credits
2. United States: 221 projects, 11.7 M credits
3. India: 89 projects, 713,174 credits
4. Turkiye: 63 projects, 811,781 credits
5. Brazil: 29 projects, 480,330 credits

Opportunities and challenges



- u Ambition in climate targets
- u Increase of the number of Emission Trading Systems
- u New Certification Systems
- u Inclusion of new sectors and regions
- u New voluntary initiatives










- u Tightening certification requirements
- u Reliability
- u Costs of certification and time required
- u Double counting
- u Volatility in prices

Project Certification Pathway



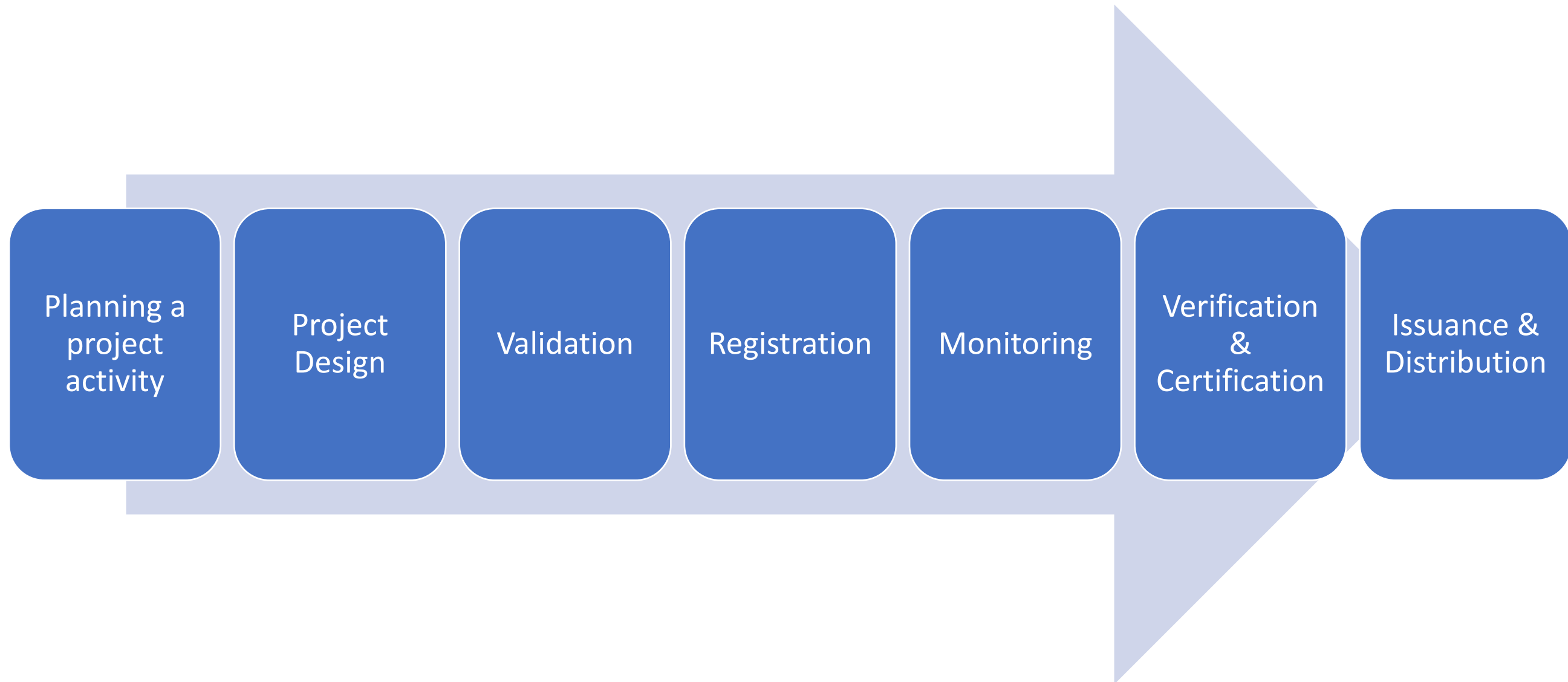
Basic Principles

-  Additionality
-  Measurability
-  Permanence
-  Leakage Prevention
-  Credibility
-  Sustainable Development Benefits
-  Transparency

Project Certification Pathway



Project Cycle



Thank you!

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