

Green Growth National Action Plan 2021-2025



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AGRICULTURE SECTOR



Green Growth National Action Plan 2021-2025

March 2020



ENERGY SECTOR



Green Growth National Action Plan 2021-2025

March 2020

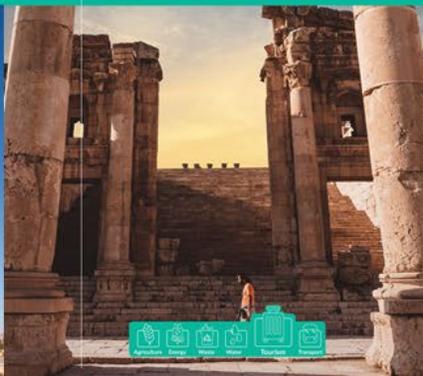


TOURISM SECTOR



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TRANSPORT SECTOR



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WASTE SECTOR



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WATER SECTOR

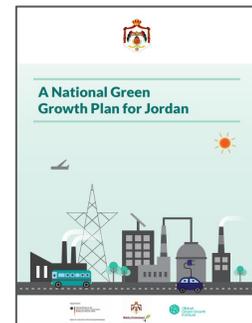
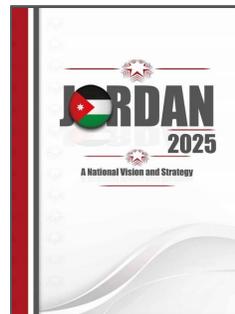
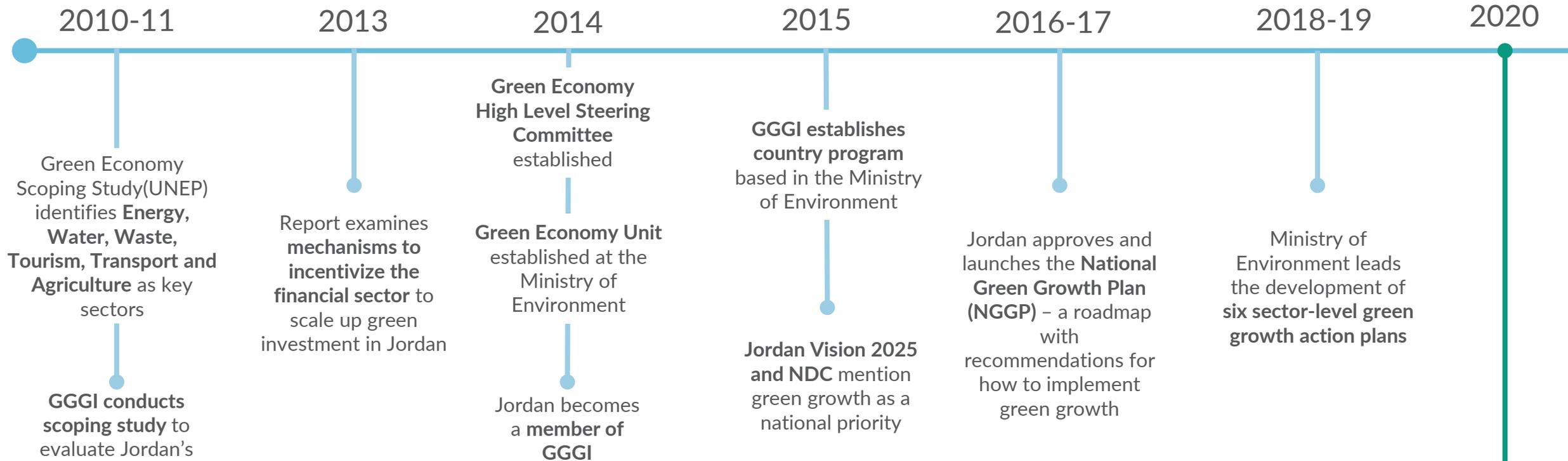


Green Growth National Action Plan 2021-2025

March 2020



Green Growth Planning in Jordan



Approval and Launch of the Green Growth National Action Plan 2021-2025

National Objectives of the Green Growth National Action Plan 2021-2025

Enhanced Natural Capital

Ensures natural resources are protected, restored and valued as enablers of sustainable, resilient growth

Sustainable Economic Growth

Economic development by greening key service sectors and investment in low-carbon, climate resilient infrastructure

Social Development and Poverty Reduction

Ensures access to opportunity for all, including women, youth and vulnerable groups, by creating jobs and increasing access to public services

Resource Efficiency

Reduces the wastefulness of various economic activities through investment in innovation and circular economy approaches

Climate Change Adaptation and Mitigation

Supports resilience to climate change impacts and reduction of greenhouse gas emissions to achieve international targets



Importance of the Green Growth National Action Plan 2021-2025

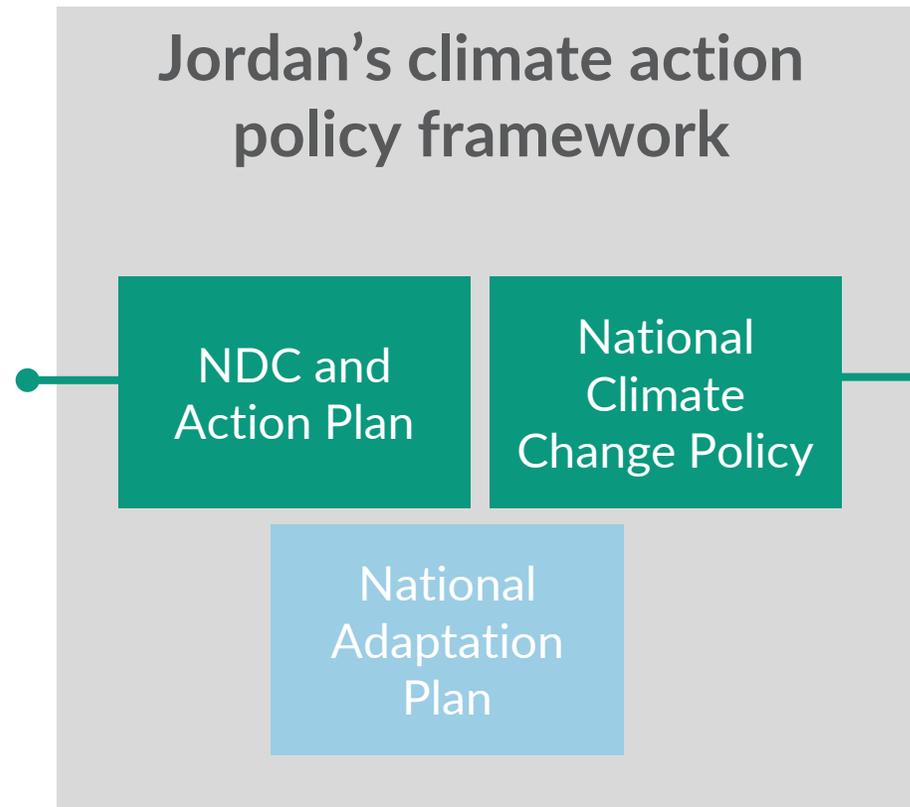
- 1 Elaborates and mainstreams green growth, climate change and sustainable development objectives into sectoral strategic frameworks
- 2 Strengthens cross-sector collaboration

1. Mainstreaming Green Growth in Jordan's National Planning System



GG-NAP Contributes to Climate Action

GHG
emission
reduction
targets

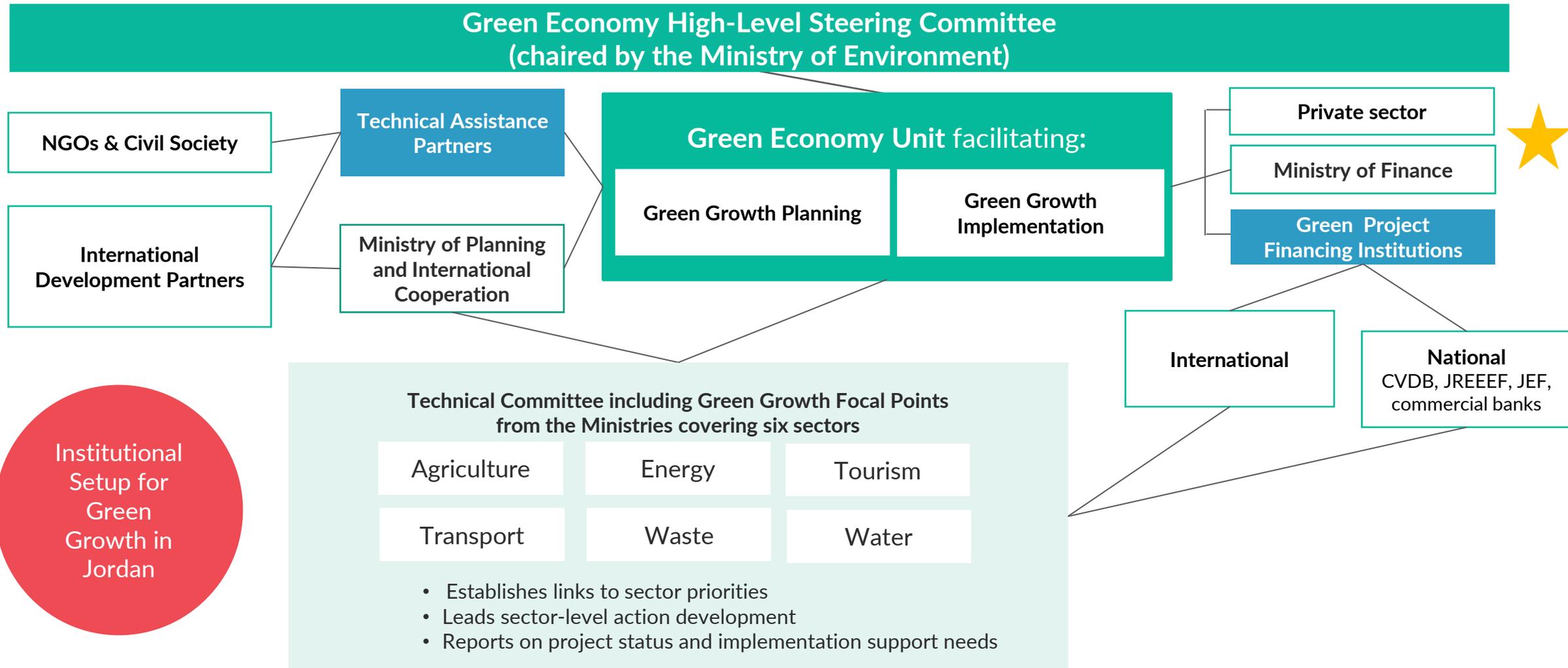


Climate Change Adaptation and Mitigation is a strategic objective of the GG-NAP

53 actions contribute to climate change adaptation or mitigation

Can support implementation of the *NDC Action Plan* and will be relevant to *National Adaptation Plan*

2. Strengthening Cross-Sector Collaboration



Role of the Ministry of Environment going forward

- Support line ministries with technical analysis as needed
- Guide further green growth planning and implementation activities and facilitating collaboration amongst all stakeholders.
- Support line ministries with cross-sector coordination to support project design and implementation.

Implementation
Tracking

Link to Climate /
Environment
Finance

Capacity Building

Communications

Summary of the GG-NAP 2021-2025



#	PRIORITY GREEN GROWTH SECTOR	NUMBER OF ACTIONS	TOTAL ESTIMATED IMPLEMENTATION COST (USD)
1	Agriculture	14	193,900,000
2	Energy	12	85,300,000
3	Tourism	12	172,700,000
4	Transport	13	167,000,000
5	Waste	16	248,250,000
6	Water	19	964,290,000
	Totals	86	1,831,440,000

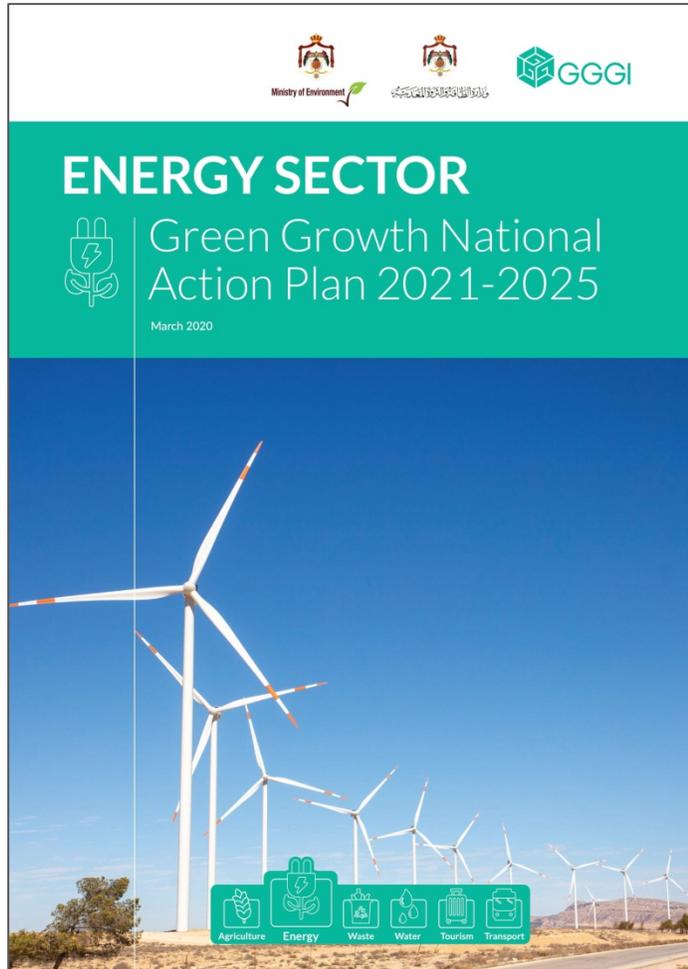
Action Concept Note

- Background context
- Implementation Objectives
- Implementation Milestones
- Links to the Relevant National Green Growth Objectives
- Other key implementation details (action lead and support, estimated cost, implementation period)
- Readiness assessment
- Implementation risk mitigation measures

- Actions have greater level of detail
→ increased preparedness of government
- Sector priorities are linked to sustainable development

Innovative financing arrangements and access to finance still critical

Energy Sector GG-NAP



12 Actions

- 11 reduce GHG emissions
- 11 promote sustainable economic growth
- 8 promote resource (energy) efficiency

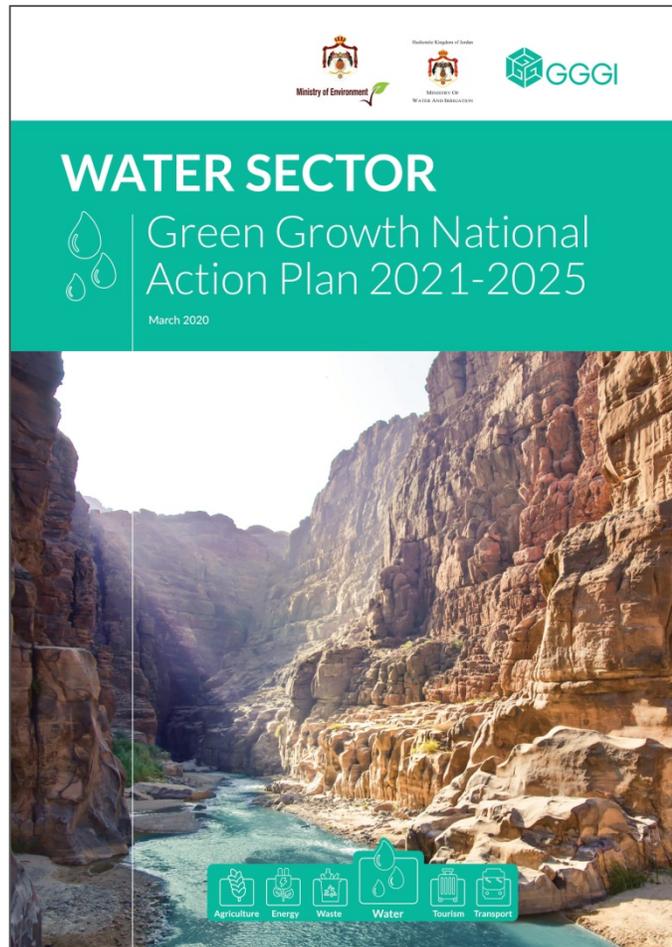
- Supports Jordan's objectives to **achieve a cleaner energy mix** through renewable energy and **reduction in national GHG emissions**.
- Promotes the **revitalization of the energy services market** and the pursuit of energy sector innovation as a driver of future economic growth and employment.
- Increases the readiness of key national institutions to **attract climate finance**.
- Emphasizes the importance of **achieving energy efficiency** through green building and construction, electric transport, and appliances.



Energy Sector GG-NAP/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			<i>Enhanced Natural Capital</i>	<i>Sustainable Economic Growth</i>	<i>Social Development and Poverty Reduction</i>	<i>Resource Efficiency</i>	<i>Climate change Adaptation and Mitigation</i>
EN02	Develop An Industrial Renewable Energy Roadmap and Investment Plan	1,000,000		X			X
EN03	Improve the market for green building and construction services market	1,000,000		X	X	X	X
EN06	Implement Electric Vehicle Charging Stations and Service Provision in Greater Amman Municipality through a Public-Private Partnership	16,300,000	X	X			X
EN08	Develop and Implement a National Energy Storage Action Plan and Investment Pipeline	10,000,000		X		X	X
EN10	Achieve GCF Accreditation for the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF).	1,000,000		X	X	X	X

Water Sector GG-NAP



19 Actions

- 12 promote sustainable economic growth
- 13 increase resilience to climate change
- 9 increase resource (water use) efficiency

- Address key challenges related to both supply and demand side management
- **Introduce incentives and financing mechanisms** to reduce the overall cost of water resource management on public resources.
- **Increase access to water and sanitation** for vulnerable members of society, including school children and displaced persons.



Water Sector GG-NAP/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
WR2	Establish a rainwater harvesting project financing facility to support projects that augment rural and urban water supply	15,000,000	x		x		x
WR6	Technical Assistance to support water efficiency in businesses, industries and commercial activities (Based on SwitchMed Experience)	4,140,000		x		x	x
WR10	Construct an industrial wastewater treatment plant in Zarqa	27,700,000	x	x	x		x
WR13	Programming to increase the availability of WASH in Schools and strengthening WinS standards for climate change impacts	1,500,000	x		x	x	

Waste Sector GG-NAP



16 Actions

14 promote sustainable economic growth

11 promote resource efficiency

8 promote climate action

- **Increases diversion of waste** away from landfills, through the reduce, recycle and reuse approach
- Encourages **private sector investment and job creation** in the circular economy through innovation, market development and public-private dialogue
- **Mainstreams critical waste streams** into sector priorities, including construction and demolition waste, e-waste and hazardous waste



Waste Sector GG-NAP/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
WS4	Establish a national center for excellence on waste management and circular economy to promote innovation, training, R&D, investment and policy work.	15,000,000		x		x	x
WS7	Conduct market assessment and feasibility study to identify potential projects and programs to divert organic waste from municipal solid waste streams	14,500,000	x	x	x	x	x
WS10	Implement a pilot extended producer responsibility program for e-waste	33,300,000	x	x	x	x	
WS12	Develop a joint public-private roadmap to transition to reduce the use of single use plastics at the household and commercial levels	3,000,000	x	x		x	
WS13	Develop a baseline study and roadmap to transition toward green jobs in the waste sector	1,000,000			x		

Transport Sector GG-NAP



13 Actions

- 10 contribute to sustainable economic growth
- 12 contribute to GHG emissions reduction
- 7 contribute to social development and poverty reduction

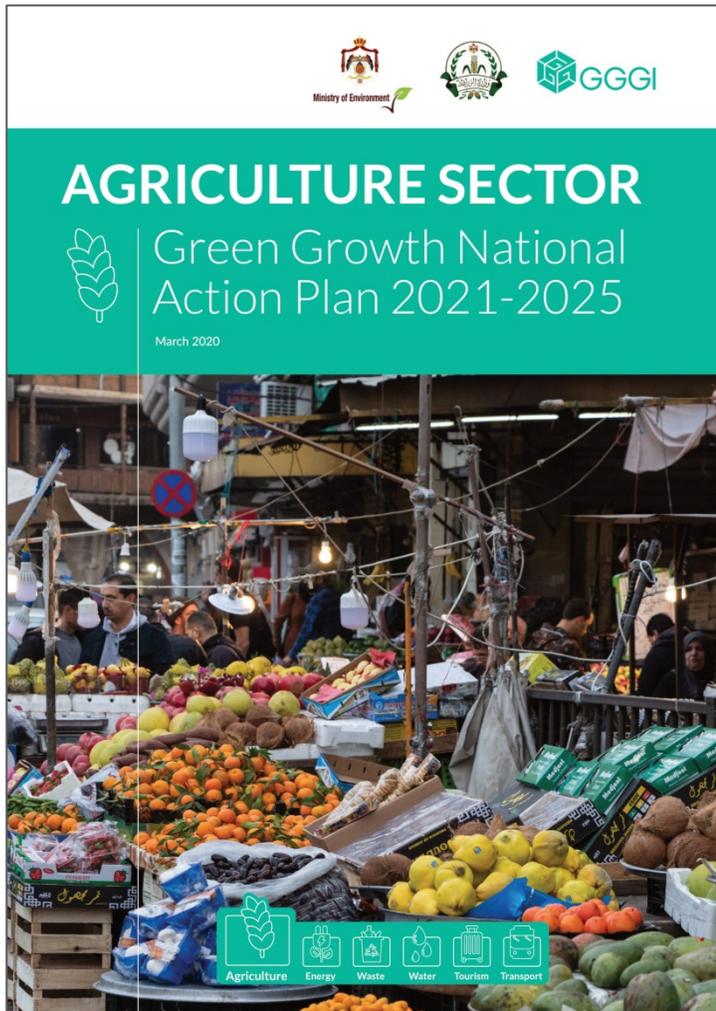
- Increase **access to public transport services** (and reduce reliance on individual car ownership) through an increase in private and public funding
- Increase **public-private dialogue and collaboration** in key transport sub-sectors, including tourism and logistics
- Enhance the enabling environment for Jordan's **transition toward greater electric mobility**
- Contribute to a **reduction of transport-sector GHG emissions** and support the implementation of Jordan's NDC



Transport Sector GG-NAP/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			<i>Enhanced Natural Capital</i>	<i>Sustainable Economic Growth</i>	<i>Social Development and Poverty Reduction</i>	<i>Resource Efficiency</i>	<i>Climate change Adaptation and Mitigation</i>
TR4	Scale up the provision of public-school bus services in all municipalities (Scale-up Smart Move Project)	15,000,000	X	X	X		
TR11	Develop a national electric mobility strategy and action plan	1,000,000	X			X	X
TR12	Design and implement a public transport electric mobility pilot and capacity building program in Amman	5,000,000	X			X	X
TR13	Establish low-carbon municipal bus fleets for Irbid, Zarqa and Madaba municipalities	22,000,000		X	X		X

Agriculture Sector GG-NAP



14 Actions

- 8 improve resilience to climate change
- 11 promote rural development and poverty reduction
- 12 promote sustainable economic growth

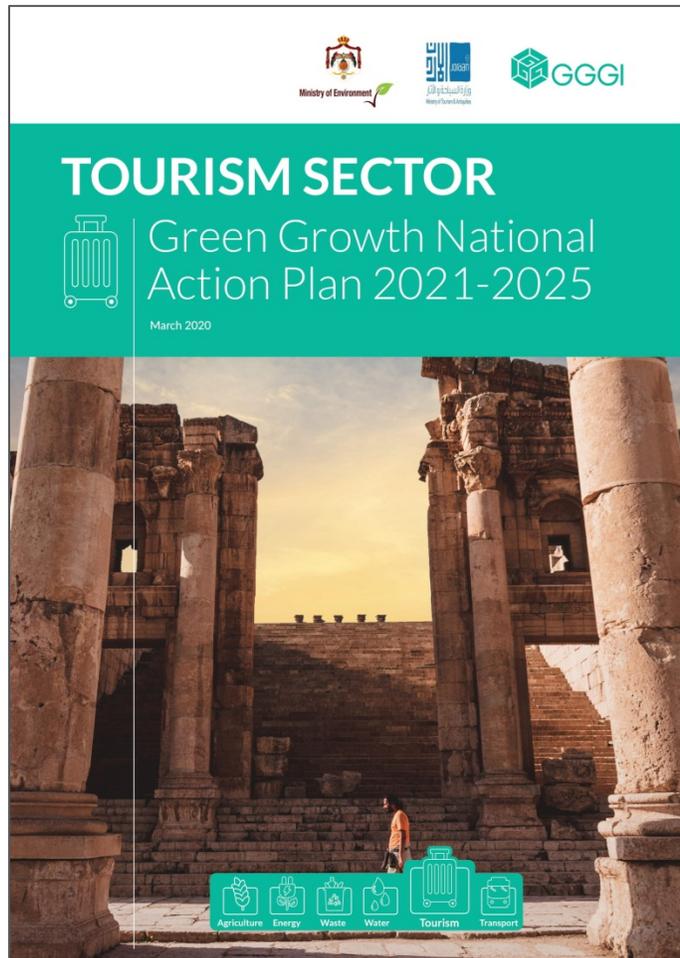
- Increase investment in **future-oriented techniques, technologies and business models** that will contribute to sectoral growth.
- Reduce the **environmental impact of the sector** by mainstreaming **landscape restoration, forestry and resource efficiency** measures into agriculture sector activities.
- Increase opportunities for farmers and rural communities to **improve their skills and access to finance** to promote sustainable livelihoods and decent, green jobs in the sector.



Agriculture Sector GG-NAP/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
AG7	Develop and implement pipeline of projects (all sizes) and policy recommendations to increase use of aquaponics and hydroponics in urban and rural areas	21,000,000	x	x	x	x	
AG8	Conduct national prefeasibility and market assessment to measure and leverage agriculture sector biowaste to resource potential	11,500,000	x	x		x	
AG14	Support rural green growth and employment through ecosystems restoration	6,000,000	x		x		x

Tourism Sector GG-NAP



12 Actions

- 11 promote sustainable economic growth
- 10 promote social development and poverty reduction
- 8 promote natural resource protection in the tourism sector

- Increase coordination and collaboration between the **public and private sectors** involved in Jordan's tourism sector.
- Increase the profitability of the sector by **increasing the skills and competitiveness of firms, communities and employees** dependent on the sector
- **Mainstreams sustainability and resilience** into sector-level investment planning
- Presents **investment opportunities in eco-tourism and sustainability** in key touristic locations



Tourism Sector GG-NAP Sector/Actions Examples

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
TM6	Develop a roadmap for increasing resource efficiency in the tourism sector	1,200,000	X			X	
TM9	Scale up eco-tourism experiences in protected areas and stimulate linkages with other tourism products	17,000,000	X	X	X		



Thank You

Energy Sector GG-NAP

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
EN01	Improve Energy Demand Management through Development of a Smart Electricity Grid	3,500,000		X		X	X
EN02	Develop Industrial Renewable Energy Roadmap and Investment Plan	1,000,000		X			X
EN03	Improve the market for green building and construction services market	1,000,000		X	X	X	X
EN04	Develop and Implement a National Green Building Strategy and Action Plan	3,000,000		X		X	X
EN05	Conduct Energy Efficiency Retrofits for Public Buildings	1,500,000		X		X	x
EN06	Implement Electric Vehicle Charging Stations and Service Provision in Greater Amman Municipality through a Public-Private Partnership	16,300,000	X	X			X
EN07	Develop a Behavior Change Campaign and Financial Mechanism to Increase Use of Energy Efficient Appliances in Jordan	9,000,000			X	X	X
EN08	Develop and Implement a National Energy Storage Action Plan and Investment Pipeline	10,000,000		X		X	X
EN09	Increase Public Investment in Energy Sector Research and Development	15,000,000		X	X		
EN10	Achieve GCF Accreditation for the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF).	1,000,000		X	X	X	X
EN11	Improve the Enabling Environment and Capacity Development Support for the Growth of the Energy Services (ESCO) Market.	1,000,000		X	X	X	X
EN12	Implement the Energy Sector Monitoring, Reporting and Verification (MRV) System.	3,000,000		X			x



Water

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
WR1	Implement capacity building program for evidence-informed investment decision making in the water sector	760,000		x			x
WR2	Establish a rainwater harvesting project financing facility to support projects that augment rural and urban water supply	15,000,000	x		x		x
WR3	Implement Key Wastewater Treatment Projects to improve Water Supply Augmentation	69,400,000		x			
WR4	Establish incentives for pollution prevention with industry in the Zarqa River Basin	950,000	x				
WR5	Construct dams and implement a parallel community water resource stewardship programs for several communities in the Jordan Valley	66,900,000		x		x	x
WR6	Technical Assistance to support water efficiency in businesses, industries and commercial activities (Based on SwitchMed Experience)	4,140,000		x		x	x
WR7	Implement Water Supply Improvement Project for Balqaa Governorate	2,300,000		x	x	x	x
WR8	Improve irrigation efficiency in the Jordan Valley (Mid-Ghors)	28,500,000		x		x	x
WR9	Increasing willingness of end user stakeholder to accept wastewater reuse in Jordan	1,000,000		x	x		
WR10	Construct an industrial wastewater treatment plant in Zarqa	27,700,000	x	x	x		x
WR11	Enhance the Energy Efficiency in the well fields and Pumping Stations	71,000,000		x		x	x
WR12	Increase the resilience of displaced persons and host communities to climate change-related water and climate change challenges	7,000,000		x	x		x
WR13	Programming to increase the availability of WASH in Schools and strengthening WinS standards for climate change impacts	1,500,000	x		x	x	
WR14	Improve implementation of decentralized water supply and sanitation solutions in Al-Azraq.	5,640,000	x		x		
WR15	Implement a program of Performance-based Contracts to Achieve Non-Revenue Water (NRW) Reduction	66,000,000		x	x	x	x
WR16	Reduce water losses and increase water savings in King Abdullah Canal	500,000	x	x		x	x
WR 17	Expand the As Samra Wastewater Treatment Plant (Phase III)	325,000,000	x				
WR 18	Undertake feasibility studies to explore storm water systems and groundwater filtration	15,000,000	x				x



Waste

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
WS1	Review and update the National Strategy and Action Plan for Municipal Solid Waste (NSAP) 2015-2034 to integrate non-municipal solid waste and elaborate integrated waste management approaches	1,500,000		x			x
WS2	Enhance the financial management and strategic planning capacity of municipal waste management authorities	600,000		x		x	x
WS3	Introduce a policy dialogue platform for implementing extended producer responsibility in the waste sector	1,000,000		x		x	
WS4	Establish a national center for excellence on waste management and circular economy to promote innovation, training, R&D, investment and policy work.	15,000,000		x		x	x
WS5	Design and implement a national behavior change campaign about circular economy and waste management	10,000,000		x		x	
WS6	Enhance the financial viability of SMEs in the waste sector through targeted business development support	5,000,000		x	x		
WS7	Conduct market assessment and feasibility study to identify potential projects and programs to divert organic waste from municipal solid waste streams	14,500,000	x	x	x	x	x
WS8	Develop and implement a Master Plan for National Hazardous Waste Management and the rehabilitation of Swaqa Hazardous Waste Landfill	35,000,000	x	x			x
WS9	Develop and implement a national policy and regulations for the management of construction and demolition waste	3,000,000		x		x	x
WS10	Implement a pilot extended producer responsibility program for e-waste	33,300,000	x	x	x	x	
WS11	Implement program for waste tire disposal and reuse	22,850,000	x	x		x	x
WS12	Develop a joint public-private roadmap to transition to reduce the use of single use plastics at the household and commercial levels	3,000,000	x	x		x	
WS13	Develop a baseline study and roadmap to transition toward green jobs in the waste sector	1,000,000			x		
WS14	Establish a national upcycling hub nearby appropriate waste management infrastructure	16,500,000		x		x	
WS15	Develop municipal solid waste infrastructure to promote recycling and the use of sanitary landfills	81,000,000		x		x	
WS16	Implement a comprehensive national cleanup campaign for solid waste littering	5,000,000	x		x		x



Transport

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
TR1	Develop and/or update Transport and Mobility Action Plans and Capital Investment Plans for the secondary metropolitan areas of Mafraq, Zarqa, and Irbid	5,000,000		X	X		X
TR2	Approve and Activate the National Public Transport Fund and identify mechanisms to raise capital for public transport infrastructure	51,000,000		X	X		X
TR3	Implement transport sector governance enhancement program and reform agenda to increase the effectiveness and efficiency of the transport sector policymaking process	1,000,000		X	X		X
TR4	Scale up the provision of public-school bus services in all municipalities (Scale-up Smart Move Project)	15,000,000	X	X	X		
TR5	Implement a pedestrian green infrastructure enhancement program in local commercial areas and near public transport	55,000,000	X		X		X
TR6	Develop a public-private dialogue and roadmap for improving road transport services linked to the tourism sector	1,000,000		X			X
TR7	Support the deployment of Intelligent Transportation Systems (ITS) to allow a modal and fare integration of the public and private transport systems in the city of Amman	9,870,000	X	X			X
TR8	Establish a national center of excellence and capacity building program for sustainable transport	1,000,000		X			X
TR9	Develop a joint public-private strategy and roadmap to improve the environmental sustainability of the logistics sector	1,000,000		X			X
TR10	Develop and implement a public-private partnership for improved parking management in Amman	11,000,000		X	X	X	X
TR11	Develop a national electric mobility strategy and action plan	1,000,000	X			X	X
TR12	Design and implement a public transport electric mobility pilot and capacity building program in Amman	5,000,000	X			X	X
TR13	Establish low-carbon municipal bus fleets for Irbid, Zarqa and Madaba municipalities	22,000,000		X	X		X

Agriculture Sector GG-NAP

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
AG1	Design and implement capacity building program for green growth planning and implementation in the agriculture and forestry sector	1,500,000	x	x	x		
AG2	Mainstream green growth into the provision of agriculture extension services and explore options to improve their long-term sustainability	5,000,000	x		x	x	x
AG3	Map and optimize research to impact pathways to improve relevance of innovation efforts in the agriculture sector	2,000,000		x	x	x	x
AG4	Undertake sector reforms to improve access to finance for small farmers	3,500,000		x	x	x	x
AG5	Develop a flexible crop planning and variety selection methodology and decision-making process based on crop-per-drop and economic competitiveness	7,500,000		x	x	x	x
AG6	Design and implement program to support demonstration resource efficiency projects in the olive cultivation and oil production sector	25,000,000		x		x	
AG7	Develop and implement pipeline of projects (all sizes) and policy recommendations to increase use of aquaponics and hydroponics in urban and rural areas	21,000,000	x	x	x	x	
AG8	Conduct national prefeasibility and market assessment to measure and leverage agriculture sector biowaste to resource potential	11,500,000	x	x		x	
AG9	Develop a long-term agriculture sector market development strategy and action plan (rationalizing and directing domestic consumption, export, imports)	2,000,000		x			x
AG10	Upgrade packaging, scaling, storage and cooling of fruits and vegetables managed by the private sector	15,200,000		x	x	x	
AG11	Promote the development of organic agriculture through knowledge exchange and market development	1,700,000	x	x	x		
AG12	Establish an agricultural insurance company and develop agricultural risk mitigation strategy	52,000,000		x	x		x
AG13	Develop and Implement a National Afforestation Program in Jordan	40,000,000		x	x	x	x
AG14	Support rural green growth and employment through ecosystems restoration	6,000,000	x		x		x



Tourism Sector GG-NAP

#	Action Title	Total Estimated Implementation Cost (USD)	Relevant Green Growth Objectives				
			Enhanced Natural Capital	Sustainable Economic Growth	Social Development and Poverty Reduction	Resource Efficiency	Climate change Adaptation and Mitigation
TM1	Formulate sector reform roadmap to update the legal, policy and institutional frameworks governing the tourism sector	1,500,000	X	X	X		
TM2	Develop and implement a green growth capacity building program for tourism sector stakeholders	1,500,000	X	X	X		
TM3	Develop a world-class global marketing and branding campaign for Jordan's tourism sector	10,000,000		X	X		
TM4	Develop tourism development master plan, investment map and packages for improved knowledge sharing, decision-making and marketing	5,000,000	X	X			X
TM5	Develop a roadmap for crisis, disasters and climate change management in the tourism sector	500,000		X	X		X
TM6	Develop a roadmap for increasing resource efficiency in the tourism sector	1,200,000	X			X	
TM7	Establish a tourism sector center of excellence to promote innovation and market development	2,000,000		X	X		
TM8	Scale-up and expand the Jordan Trail	11,000,000	X	X	X		
TM9	Scale up eco-tourism experiences in protected areas and stimulate linkages with other tourism products	17,000,000	X	X	X		
TM10	Improve tourism products and services in and around Petra	40,000,000	X	X	X	X	
TM11	Improve the quality and quantity of Jordan cultural heritage tourism products following participatory approaches	57,000,000		X	X		
TM12	Updating and implementing the Yarmouk Area Sustainable Tourism Strategy (2016-2020), constructing a number of eco-lodges	26,000,000	X	X	X		