STUDY

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Jordan's Green Transition Pathway

Actors, Extractivity/Inclusivity and Stability

Regional Competence Center for Energy and Climate Justice MENA

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Preface

This paper explores Jordan's green transition pathway and its prospective development. Jordan has always struggled with its energy resource deficiency. Unlike its oil-rich neighboring, the country relied extensively on energy imports. Its extreme water poverty added yet another restraint on the country's economy and development. It is no wonder, then, that the green transition was met with much enthusiasm with various state initiatives. Nevertheless, the prospective development of major changes could only be assessed by looking closely at state-society relations, present and potential interests, the power of interest representation, and existing relations between different actors that enable or disable them from working together.

Theoretically, the paper conceptualizes the presence of extractive and inclusive pathways to the realization of the green transition. In more extractive pathways, the elites are the beneficiaries. In a more inclusive pathway, a pro-green transition wider coalition is built. Identifying broad actor sets (e.g.: state, businesspeople, labor), distinctive actors emerge from these sets based on interest in/against the transition. The more the set of interested actors in the green transition are limited and concentrated in one actor set, the more extractive the pathway is. If in the short-run actors are unable to clearly assess their benefits/losses from the green transition schemes, in the medium-run this is more possible; and in the long-run institutions (including state-society relations) are no longer sticky. For a pathway to be stable at least in the medium run, the pro-policy coalition has to be sufficiently more powerful than the contra-policy coalition. The comparative power of policy coalitions depends on three important dimensions: a)- strength of interest (utility) in/against the green transition of the constituent actors, b)- actors' comparative power, and c)- actors' coordination.

Using this conceptual framework, the paper investigates the pathway that Jordan takes in its green transition. The Jordanian case is investigated and especially in terms of who is going to benefit or lose from the selected pathway for the transition? And whether this pathway will be sustainable, at least in the medium run? While the former refers to the extractivity/inclusivity of the pathway , the latter assesses its stability/instability. Empirically, the paper depends on a very rich qualitative data collected from surveys conducted by the Friedrich Ebert Stiftung (FES) team in Jordan in the period extending between October 2024 and February 2025. Around 60 participants representing state, businesspeople, labor, and CSOs took part in these surveys.

The data reveals that none of the actors has a negative or even neutral interest in the green transition. All has on average positive interest. Accordingly, Jordan's pathway tends to be more inclusive even if the level of positive interests varied among actors and actor sets. In terms of stability, the pro-transition coalition has various actors including the most powerful in terms of organizational interest representation, such as state actors. The level of coordination, however, tended to be medium. The executive seems to be at the center of the pro-transition coalition, given its power, strong coordination with other state actors and medium level of coordination with societal actors. Hence, the green transition pathway in Jordan is more stable, at least in the medium run.

1.
Introduction

Jordan has always struggled with its energy resource deficiency. Despite neighboring countries having the world's biggest reserves of fossil fuels, the country relied extensively on energy imports. Its extreme water poverty added yet another restraint on the country's economy and development. It is no wonder, then, that the green transition was met with much enthusiasm with various state initiatives such as the Jordanian National Energy Strategy, the Jordan Renewable Energy and Energy Efficiency Fund (JREEEF), the Master Strategy for Energy Sector 2015-2025 and its update for 2020-2030, and the Economic Modernization Vision 2033.

The green transition usually refers to the shift towards energy generation from more renewable sources, yet the transition entails multifaceted dimensions and triggers a plethora of debates on: the diversification of energy sources, energy costs reduction or magnification, decarbonization of the industrial and service sectors, backward and forward integration of the renewable energy generation sector with local industries, importation of foreign technologies, green innovation and green startups, export competitiveness, structural change training and capacity building, jobs creation and loss, land and water excessive use, and local communities developmental concerns. While doing this, the transition creates various interests and big opportunities but as well poses potential threats and challenges.

As many hard learnt lessons in the Middle East and North Africa (MENA) region continuously show us, initiatives and big plans do not necessarily materialize into a major and sustainable change. Whatever drafted on paper needs a considerable and persistent force that pushes those schemes forward. Perhaps nothing helps us in anticipating the prospective development of major changes than looking closely at state-society relations, present and potential interests, the power of interest representation, and existing relations between different actors that enable or disable them from working together.

It is for this purpose that this paper is written. The paper investigates the pathway that Jordan takes in its green transition. Depending on a conceptual and theoretical framework that was used in analyzing different MENA countries (Sabry, 2024, 2025a, 2025b), the Jordanian case is investigated and especially in terms of who is going to benefit or lose from the selected pathway for the transition? And whether this pathway will be sustainable, at least in the medium run? While the former refers to the extractivity/inclusivity of the pathway , the latter assesses its stability/instability. Empirically, the paper depends on qualitative data collected from surveys and interviews conducted by the Friedrich Ebert Stiftung (FES) in Jordan in the period extending between October 2024 and February 2025.

The next section of this paper presents briefly the research conceptual and theoretical framework. The following section discusses the methodology. Then the Jordanian case study is analyzed. The last section concludes the paper with a discussion on results and policy recommendations.

Image 1: Tafila Wind Farm | The first wind farm in the Kingdom of Jordan and the region

2.
Conceptual and Theoretical Framework

The following conceptual and theoretical framework is adopted from previous work on the green transition in some MENA countries (Sabry, 2024, 2025a, 2025b). It mainly assesses the green transitions of various countries according to two criteria: their extractivity/inclusivity and their stability. This is elaborated below.

The green transition represents a profound socioeconomic transformation that affects various actors as the world moves away from fossil fuels and embraces renewable energy. Those collective state and social actors have interests that vary in their direction (positive or negative) and intensity with regard to the green transition. Besides the state, actors emerge based on their interests from among businesspeople, labor, and civil society organizations. Those four broad groups of actors could be referred to as actor sets. Each of these actor sets could hold several collective actors with conflicting interests. For instance, a conflict of interests might emerge among the businesspeople actor set between investors in renewable energy projects and beneficiaries from fossil fuel-related industries, among the state actor set between the ministries or departments that deal with energy and the environment, among the labor actor set between workers seeking job security and others benefiting from new green jobs, and between the CSOs actor set between those prioritizing social compensation and developmental benefits and others focusing on the prevention of environmental degradation.

The question of whose interests are being considered in the green transition pathway helps us identify the level of extractivity or inclusivity of a pathway. Drawing on Acemoglu and Robinson's (2019) distinction between extractive and inclusive institutions, a continuum ranging between the two poles of the most extractive and the most inclusive pathways for realizing the green transition could be anticipated. A more extractive pathway involves elites—such as state officials or a coalition of local and foreign business leaders—driving the transition while disregarding the interests of the broader population. To the contrary, a more inclusive pathway is one where a pro-green transition coalition is built, balancing the interests of various actors. As a methodological approach to assess the extractivity/inclusivity of a pathway, the following three criteria are suggested. A more inclusive pathway is one where a)- several actors have a positive interest in the transition, b)- those positively interested actors come from different actor sets, and c)- positively interested actors outnumber negatively interested actors. The more these three criteria are met, the more inclusive is the pathway and vice versa.

The extractivity or inclusivity of a pathway does not directly reveal its stability. Assessing the stability of the pathway invites us to differentiate between the short, medium, and long runs. While in the short run less information about the green transition schemes is available and a deeper assessment of the different actors of their interests (benefits or losses) is not yet realized, in the medium run both conditions change. On the other hand, on the long-run the pace of the transition could even change state-society relations and the power dynamics characterizing these relations, which in the short and medium runs could be considered to be more likely fixed. Since investigating the effect of the green transition on state-society relations on the long run and what it requires from a lengthy assessment of a plethora of possible scenarios is beyond the focus of this paper, a pathway stability is being discussed only on the medium run.

Box. 1

The stability

The stability of a pathway depends on the presence of supportive actors or policy coalitions of different actors. Analyzing the balance between the pro and contra policy coalitions can help evaluate the stability of a given pathway. Coalitions consist of groups sharing similar beliefs and coordinating their actions to influence policy (Fischer, 2015; Sabatier & Weible, 2007). As noted by Schmitz (2017), while actors can either support or obstruct the transition, no single actor possesses the resources to achieve the green transition independently. Extensive literature emphasizes the need for supportive policy coalitions for significant changes to occur (Doner & Schneider, 2016; Hochstetler, 2020; Nem Singh & Camba, 2020). Coalitions may form through an alignment of interests, even if the actors do not have identical goals or maintain long-term partnerships (Schmitz, 2017).

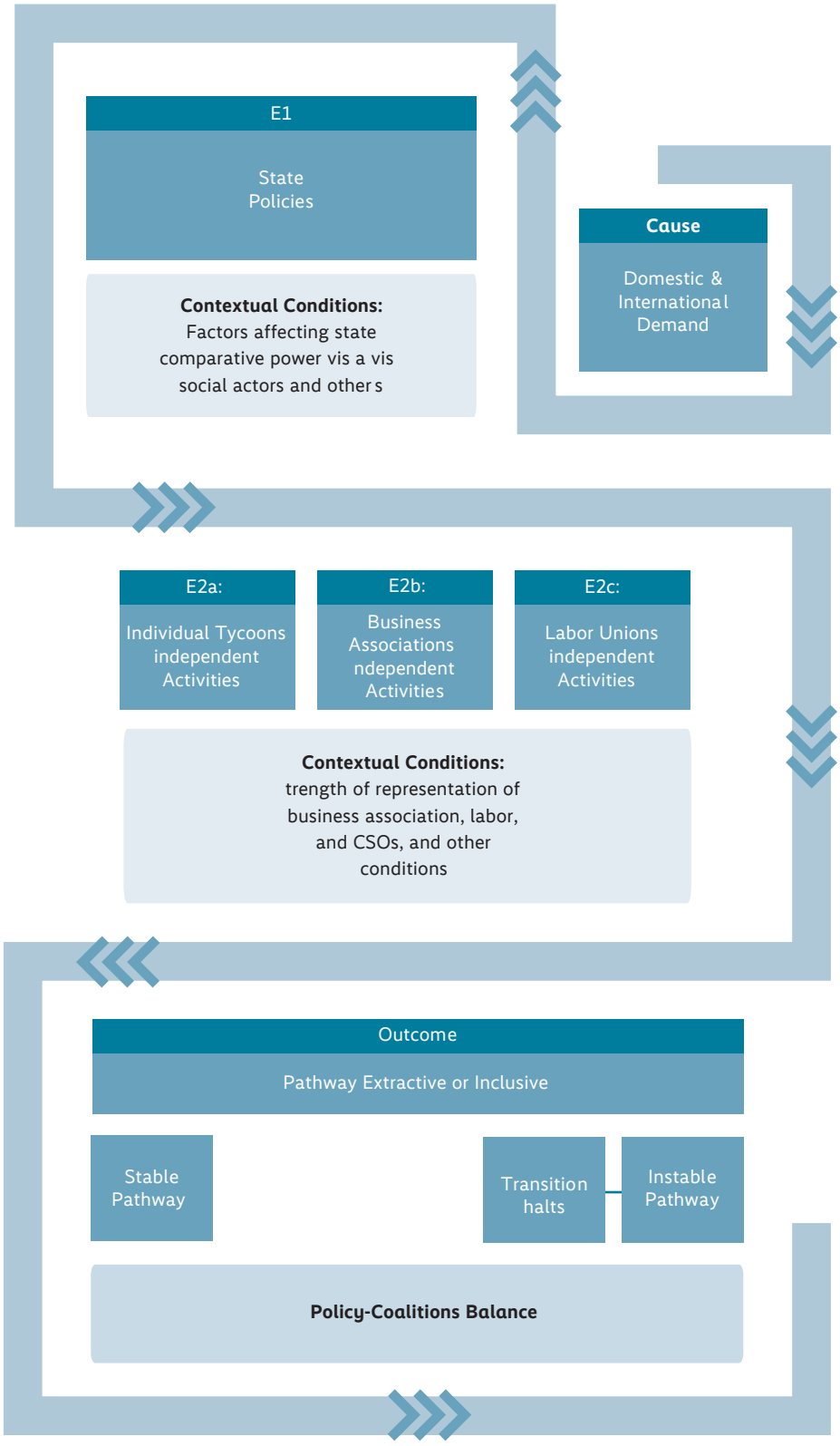
The coalition's overall power is not simply the sum of its members' strengths. Coordination is vital for forming a coalition (Fischer, 2015; Sabatier & Weible, 2007, p. 196), and lack of coordination can weaken the coalition's power below that of its individual members. Conversely, effective coordination can enhance the coalition's power beyond the strength of its individual partners'. However, coordination comes at a cost (Doner & Schneider, 2016), requiring actors to communicate and sometimes compromise their interests for the collective benefit (Fischer, 2015; Mahoney, 2007). Additionally, historical rivalries or mistrust can hinder coordination efforts.

As suggested in Sabry (2024, 2025a), the strength of policy coalitions depends on three main factors: a) the level of interest in or opposition to the green transition among members, b) their individual comparative power, and c) their ability to coordinate. Different actors' interests in the green transition are shaped by anticipated gains or losses, based on the promises and threats posed by the transition and the level of trust in those managing it. Actors' comparative power could be assed according to actors' capability to defend their interests in two respects: a)- internal representation, or actors' strength in defending their interests within the organizations that defend the interests of their actor set (e.g.: business associations as representatives of various business actors) and b)- external representation, or representative organizations' strength in defending the interests of the constituting actors vis a vis other actors from other actor sets (e.g.: business associations vis a vis state or labor actors). Finally, the capability of the different actors to coordinate could be assessed based on their relationship. Three factors could here be identified: mutual trust, common understanding, and past experiences. The higher the three factors, the more likely that the coordination among the relevant actors is successful and vice versa.

Methodologically, pathways- extractive or inclusive- are stable if the probability of success of the green transition exceeds a certain threshold. This probability can be assessed by comparing the utility (interests) of the pro-transition coalition, weighted by its comparative power (i.e.: interest representation and coordination), to that of the opposing coalition. If this condition is met, the green transition will likely maintain its course over time. However, unstable pathways will eventually shift toward another path where the green transition stalls. In this case, policy interventions are needed to realign interests.

The development of the green transition pathway that will lead it to be more extractive/inclusive and more stable/instable could be conceptualized using a process tracing methodology (Beach & Pedersen, 2016). The domestic and international energy demand on greener sources of energy is seen as the cause. More precisely, this demand is driven by the domestic need for energy, energy exporting potential, and/or foreign pressures for decarbonization (e.g.: from the European Union). The different resultant green transition pathways are viewed as alternative outcomes. The mechanisms driving these outcomes are shaped by the activities of key collective state and social actors (entities), each pursuing their own interests. The first set of mechanisms are state policies which shape interests of societal actors. Then comes the activities of various societal actors and how they could organize and benefit or assess their collective losses from government policies. This would determine how extractive/inclusive the pathway is. At the next step, and in the medium run, the relative power of the different concerned actors and the coalitions they form would affect the stability of the pathway. Figure 1 provides a visual summary of this process.

A Process Tracing of GreenTransition Pathways



E: refers to Entity. E1 refers to the state and E2 to societal actors.

3.
Methodology

The analysis of the Jordanian case study is based on new qualitative data gathered from a survey that was constructed by the author and administered and collected between 2024-2025 by the Friedrich Ebert Stiftung (FES) in Amman, Jordan (see Appendix A-3 for reading the whole list of survey questions). The surveys were conducted with a diverse group of economic and political actors. The survey was conducted with the participation of various actors who are interested in the green transition. Sixty participants took part in the survey. They were predominantly private business (29 participants), state (14 participants), or CSOs (15 participants) representatives and a few labor union and professional association (5 participants) representatives. Several from the latter shared the status of being both representatives of their private business enterprises and membership in a labor union or professional association (3 participants), as indicated in their answers of their identity (Question I-C) and the organization representing their interests (Question III-A). The categorization of the different survey participants is reported at the Appendix (see Table A-1). The activities of the various participants' organizations cover the whole country with much higher reported activity in Amman (47 participants), while the lowest being in Balqa governorate (20 participants) (see Figure 2).

The input from surveys is mainly treated as perceptions of the green transition process. Greater alignment in perceptions among multiple interviewees strengthens the evidence, especially when these views align with existing literature. Thus, the survey data is supplemented with academic and various reports.

Many of the survey questions had answer options that ranged between non existent (or neutral), low, medium, and strong. These were coded as 0, 1, 2, and 3, respectively. The question on the interest in the green transition (Question IIA), however, had the answer options of: a very big threat, a threat, neutral, an opportunity, a very big opportunity; and these were coded as -2, -1, 0, 1, and 2, respectively. The averages of the obtained answers were rounded and judgment on the average were made accordingly. Thus, if the average for the questions with a scale ranging between 0 and 3 was 2.7, the number is rounded to 3 and the average answer would be considered as "strong".

Image 2: Jordanian national flag on the Raghadan Flagpole

The Geographical Distribution of Participants' Activities

Fig. 2

4.
The Jordanian Case Study

4.1 A General Overview of the Green Transition in Jordan

Jordan has never been a significant energy producer and exporting countries as many of its MENA neighbors. Despite having some shale oil reserves, the country has strongly depended on energy imports. Jordan imported around 76% of its energy demand which corresponded to about 7.8% of the country's GDP (Energy Balance., 2023). Such extremely high dependency on imported fossil fuels meant that fuel international prices played a great role for the Jordanian economy. On one hand, cheap international oil prices has helped the country in reducing public debt and initiating fiscal reforms and vice versa. Yet, the economy tended as well to benefit from high oil prices, which increased Gulf states' financial aid to Jordan as well as the remittances of Jordanian labor working in these states, to the extent that the Jordanian economy shared the economic crisis of the 1980s that engulfed MENA oil exporting countries because of falling prices (Al Khouri & Silcock, 2021, pp. 192–195). Foreign aid is historically playing a considerable role in the Jordanian economy (16% of GDP in 1970s) and state budget (50% of revenues in 1970s), although its significance sharply decreased recently.[1] This remarkable foreign aid figures flew primarily thanks to the country's remarkable geographical position and proximity to major conflict areas in the MENA region. The high reliance on oil-related flows seemed to permit the importation of the rentier economy mechanisms embedded in the neighboring economies of the Gulf, despite Jordanian lack of fossil fuel resources. This includes low reliance on taxation and a huge public sector that is dependent on external financial support (rather than from being efficient) (Al Khouri & Silcock, 2021, pp. 192–194; Moore, 2001).

Jordan is endowed with various renewable energy sources and especially solar and wind resources. Average solar irradiation ranges between 1400-2300 kWh/m2 annually and especially at Ma'an, south of the Kingdom. In some locations, wind speeds ranges between 6-8 meter per second. Wind power which could be installed in around 16% of the Kingdom's land could generate up to 3.6 GW, with the best locations for utilizing wind energy being the western Highlands. Other already utilized and potential renewable resources include hydropower (e.g.: King Talal Dam with installed capacity of 7 MW), bioenergy from municipal solid waste, and geothermal energy (ESCWA, 2018, p. 29; IRENA, 2021, pp. 31–33).

A combination of high reliance on costly imported energy and abundance in renewable energy sources induced the state to be one of the pioneers in renewable energy production in the MENA region. Jordan was among the top destinations for green investments in the global emerging markets in 2018 (Schuetze & Hussein, 2023). Several renewable energy projects were constructed and supporting institutional measures were adopted (see Tables 1 and 2). The contribution of renewable energy in the total energy mix of the country reached 13% in 2019, and 20% of generated electricity in 2020 (Manna' & Saffouri, 2022, p. 30).[2] Other than electricity generation, another important use of renewable and especially solar energy is in the field of water heating and coolling. A surge in the number of solar water heaters was realized in the second half of the 2010s, in 2016 there were only 3.5 thousand installed systems while at the end of the decade they became 24 thousand. In the transportation sector and despite the rapid growth of EVs in the second half of the 2010s (reaching 18 thousand in 2018), renewables use in the sector is rather very limited (IRENA, 2021, pp. 33–36).

Tab. 1

Some important Renewable Energy Generation Projects in Jordan

Source: IRENA (2021) and ESCWA (2018)

Source	Project	Location	Capacity	Started/ Planned	Comments
Wind	*Wind Energy Farm at Hofa*	*Hofa*	*1.125 MW*	*1998*	
Wind	*Tafila Wind Project*	*Tafila*	*117 MW*	*2015*	
Wind	*Ma'an Wind Project*	*Ma'an*	*66-80 MW*	*2016*	
Solar	*Quweira Plant*		*103 MW*	*2018*	
Solar	*Al-Mafraq Solar PV Project*	*Al-Mafraq*	*23 MW/12.6 MWh*	*2019*	*Solar and storage project*
Biogas	*Landfill Project in Rusaifa*	*Rusaifa*	*1 MW increased into 5 MW in 2017*	*1999*	*Owned by the Jordan Biogas Company*
Hydroelectrical	*King Talal dam*	*7 MW*			*Installed at the River Zarqa*

The major Developments and Initiatives related to the Green Transition in Jordan

Tab. 2

Source: IRENA (2021), ESCWA (2018), and GIZ (2023)

Year	Development	Comments
1988	The installment of the first wind farm at Al Ibrahimya	Energy production of about 750 MWh annually.
1996	The installment of Hofa wind farm	Capacity of 1.125 MW
2007	The Jordan National Energy Strategy 2007-2020	Renewable share planned to reach 7% in 2015 and 10% in 2020.
2011	The Central Bank of Jordan started providing a special credit facility	The credit facility is provided with low interest rates to different activities including renewable energy and energy efficiency-related activities.
2012	The Renewable Energy and energy Efficiency Law No. 13	Establishing Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) managed by MEMR. The law was also followed by several bylaws and instructions in the subsequent years that were meant to implement the law.
2012	The Jordanian National Energy Efficiency Action Plan (NEEAP) 2012-2014	Planned to improve energy efficiency by 20% by 2020.
2014	Constructing the first EV charging station.	In 2019, the number of stations reached 30,000. Various government incentives were provided to encourage EVs.
2014	Law No. 31 on Public Private Partnerships (PPPs)	Allowed competitive tenders to attract suitable investors in renewable energy projects as well as other fields.
2015	The Master Strategy for Energy Sector 2015-2025	By 2025, renewables share of generated electricity planned to reach 20%.
2015	Bylaw No. 13: removing sales taxes and customs fees from renewable energy systems as well as energy saving equipment.	
2016	The first round of Solar PV projects direct offers	The total capacity of 200 MW
2017	Law No. 8 establishing the Energy and Minerals Regulatory Commission	
2017	The first National Renewable Energy Action Plan	
2018	The second round of solar PV projects	
2019	Share of renewables in the Jordanian energy mix exceeding 13%	
	Bylaw 79 for Climate Change	Greenhouse gas emissions should be reported by stakeholders
	New projects that exceed 1 MW was indefinitely suspended	Due to concerns on the grid ability to integrate further generated power
2020	MEMR launched the updated Master Strategy for the energy sector (2020-2030)	Renewables should constitute 31% of the total power generation capacity by 2030
2020	The Waste Management Framework Law	
2021	Updated version of Jordan's Nationally Determined Contribution (NDCs)	GHG emissions planned to be reduced by 31% by 2030.
2022	The adoption of the Economic Modernization Vision 2033	It targets accelerating sustainable economic growth aiming at low-carbon emissions and resource efficiency.
2025	General electricity law and gas law	

In 2019, however, there was a halt in the progress of the transition that could be attributed to technical problems related to the grid (Manna' & Saffouri, 2022, p. 32; Schuetze & Hussein, 2023). There was as well a revival of interest in fossil fuels because of domestic and regional economic and political factors, especially the resumption of natural gas importation from Egypt through the gas pipeline between the two countries as well as importing gas from other destinations (Schuetze & Hussein, 2023).

One of the potential challenges facing the expansion of the green transition and especially green hydrogen production plans is the severe water shortage in the country. This is generally acknowledged among different stakeholders (Komendantova, 2021). Jordan is among the poorest 4 countries in the world in terms of water resources and the country is far below the international water poverty level (only 15% of it); and this induces plans to construct several desalination projects either with the help of solar energy (Aqaba project) or to generate hydroelectric power (the Red Sea-Dead Sea Project) (ESCWA, 2018, pp. 27–28). Thus, the transition could solve water scarcity problems (Azzuni et al., 2020). Similarly, green hydrogen production would rely on desalinated Red Sea water from Aqaba; but any related assessment should account for Jordan's dire water needs (Manna' & Saffouri, 2022, p. 34).

4.2 The Main Actors and Their Interests

As identified earlier in this paper, the actors are grouped according to the four main sets: state, businesspeople, labor, and CSOs. Table 3 and Figure 3 reveal some interesting findings. Overall, the actors generally on average tend to regard the green transition as a very big opportunity (a score of 1.68 with the possible maximum being 2) and none among the different collective actors has on average regarded the transition negatively. Certainly, the assessment varied among the different actor sets and among the collective actors within the same sets. The highest positively interested actor set is the state (1.79), followed by businesspeople (1.72), CSOs (1.6), and finally labor (1.4). The difference between the different sets never reaches a one standard deviation. The highest interested collective actors are business associations and the GFJTU (both with average score of 2) and the least were business startups (score of only 0.5), but the small number of participants in the three cases (5, 2, and 2 participants, respectively) makes the result less reliable. Within the state set, the executive/administration/research actors have higher interest than public sector enterprises (see Table A1 at the Appendix for the specific categorizations). SMEs have higher positive interest than large private enterprises and much higher (more than two standard deviations) than business startups, within the businesspeople actors' set.

The reasons for creating either positive or negative interests from the green transition were several and differed among the various actor sets. The same was true concerning the enacted governmental policies which were responsible for increasing actors' interests or risks from the green transition. Since the wording of each survey participant differed, their opinions were grouped into general categories of interests and policies (a list of full description of these are reported at the Appendix, Table A-1). Examining the most commonly reported interests, risks, and policies is done in the following subsections accounting for each of the actor sets.

Tab. 3

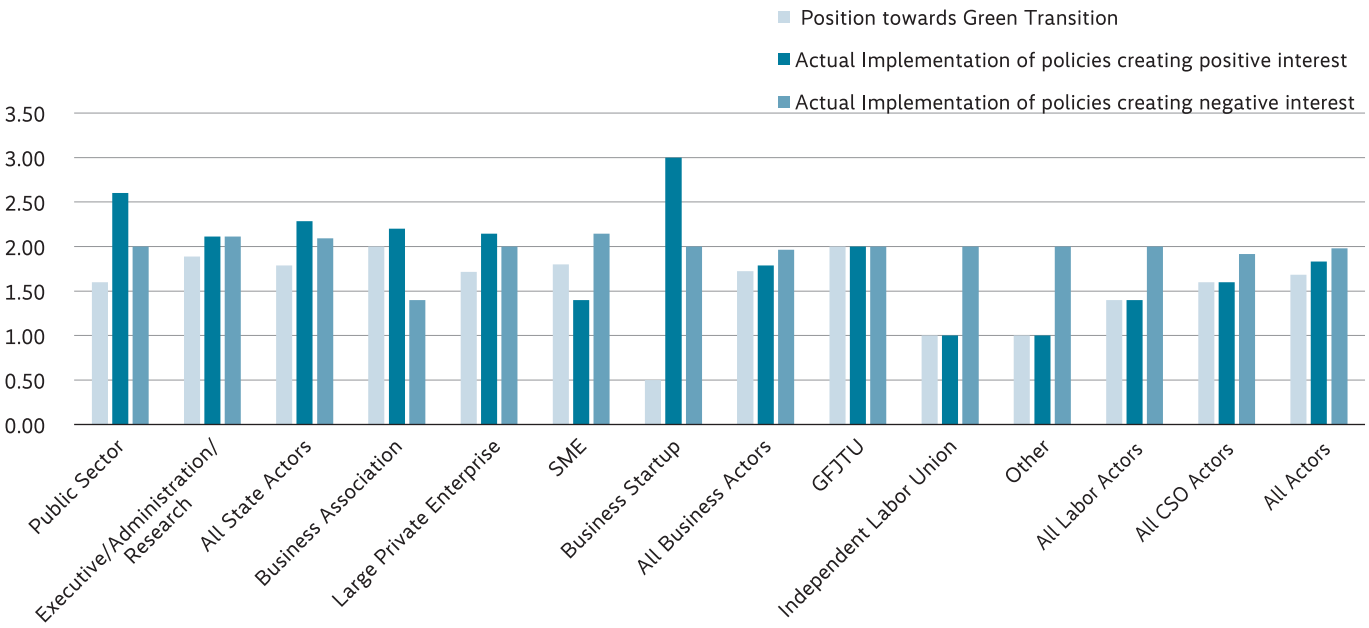
Some important Renewable Energy Generation Projects in Jordan

Source: IRENA (2021) and ESCWA (2018)

	Number of Participants	Position towards Green Transition (Max.=2 Min.=-2)	Actual Implementation of policies creating positive interest (Max. =3 Min.=0)	Actual Implementation of policies creating negative interest (Max.=3 Min.=0)
Public Sector	5	1.60	2.60	2.00
Executive/Administration/Research	9	1.89	2.11	2.11
All State Actors	14	1.79	2.29	2.09
Business Association	5	2.00	2.20	1.40
Large Private Enterprise	7	1.71	2.14	2.00
SME	15	1.80	1.40	2.14
Business Startup	2	0.50	3.00	2.00
All Business Actors	29	1.72	1.79	1.96
GFJTU	2	2.00	2.00	2.00
Independent Labor Union	1	1.00	1.00	2.00
Other	2	1.00	1.00	2.00
All Labor Actors	5	1.40	1.40	2.00
All CSO Actors	15	1.60	1.60	1.92
All Actors	60	1.68	1.83	1.98
Std. Deviation	..	0.54	0.87	0.83

Fig. 3

Actors' Interests in the Green Transition



4.2.1 The State

In a country that lacks remarkable fossil fuels, the executive should be certainly one of the most interested actors in the green transition. More specifically, the Ministry of Energy and Mineral Resources (MEMR), the Ministry of Industry and Trade and Supply, and the Ministry of Environment.

Other than the executive, there are many state-owned enterprises (SOEs) that operate in the energy sector. One of the important state actors in the energy field is the National Electric Power Company (NEPCO) which is the single seller and buyer of electricity and it is fully owned by the state. Other public companies in the sector that generate electricity are the Central Electricity Generating Company (CEGCO) (the share of the state is only 40%) and the Samra Electricity Power Company (SEPCO) (100% state-owned). In the distribution segment, state-owned companies include: the Jordan Electric Power Company (JEPCO), electricity Distribution Company (EDCO), and the Irbid District Distribution Company (IDECO);[3] and the three control about 90% of the market of the electricity provided by NEPCO (ESCWA, 2018, pp. 24–25; IRENA, 2021, p. 19). SOEs also operate in other sectors that are concerned about the green transition, such as the phosphate industry which is a major contributor to the Jordanian economy as it is the largest export and provider of foreign exchange. The state controlled about 25% of the ownership of the Jordan Phosphate Mines Company, while the Social Security Corporation owned around 16.6%. (JPMC annual report, 2024, pp. 74). The industry- together with the fertilizer and cement industries- are responsible for considerable energy consumption shares (IRENA, 2021, pp. 25–28). To the concerns on energy consumption intensity, the phosphate industry has forward linkages with the fertilizers industry and could benefit from any green hydrogen production plans.

State actors has expressed, as stated before, high positive interest in the green transition and this was especially true for the executive, administration, and research actors (full description of interest categories in Table A2 at the Appendix). A previous study, Schuetze and Hussein (2023), has argued that the Jordanian state was mainly concerned about energy security. The surveyed state actors, however, had perceived another ordering of interest priorities. Figure 4 reports the interest categories that were stated by state actors more than once. The darker color (red) indicates that the concerned interest category is placed by actors in a higher rank and a lighter (yellow) color indicates a lower rank.

As Figure 4 shows, the most reported source (interest category) of positive interests among state actors were environmental objectives such as reducing carbon emissions and climate change mitigation (9 votes). The interest category is the mostly ranked as the first by various state actors (4 times). The next interest category is electricity/energy efficiency (7 votes), then the creation of new business opportunities and renewable energy (and green hydrogen) development (5 votes each). Then came electricity/energy costs, the use of sustainable energy sources and energy security and diversification (4 votes each); next came the use of green manufacturing technologies and sustainable developmental and economic growth goals (3 votes each). Finally, came the interests in sustainable agriculture, green jobs, and green urban planning (2 votes). The category "other-all" brings together all sources of positive interest that were stated only once.

Interersts of State Actors in the Green Transition

Fig. 4

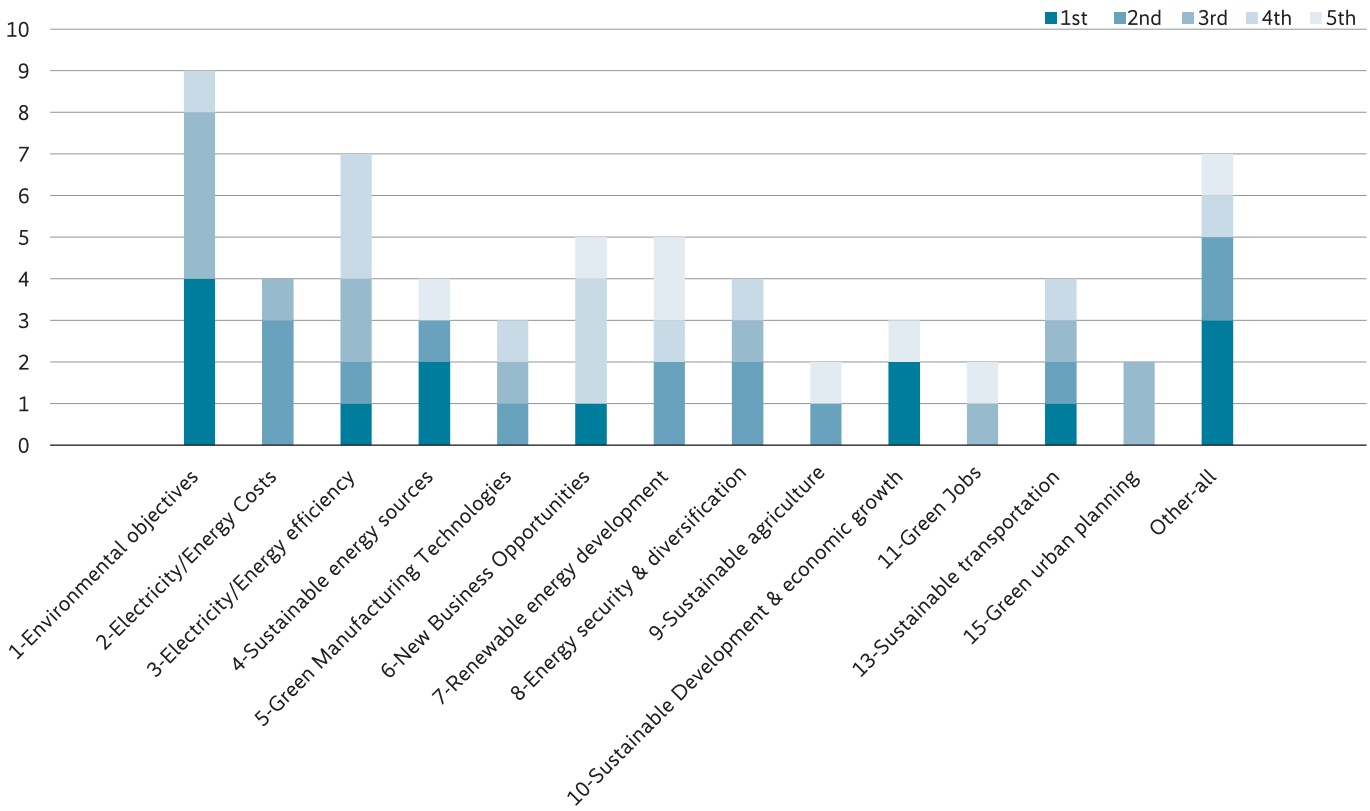
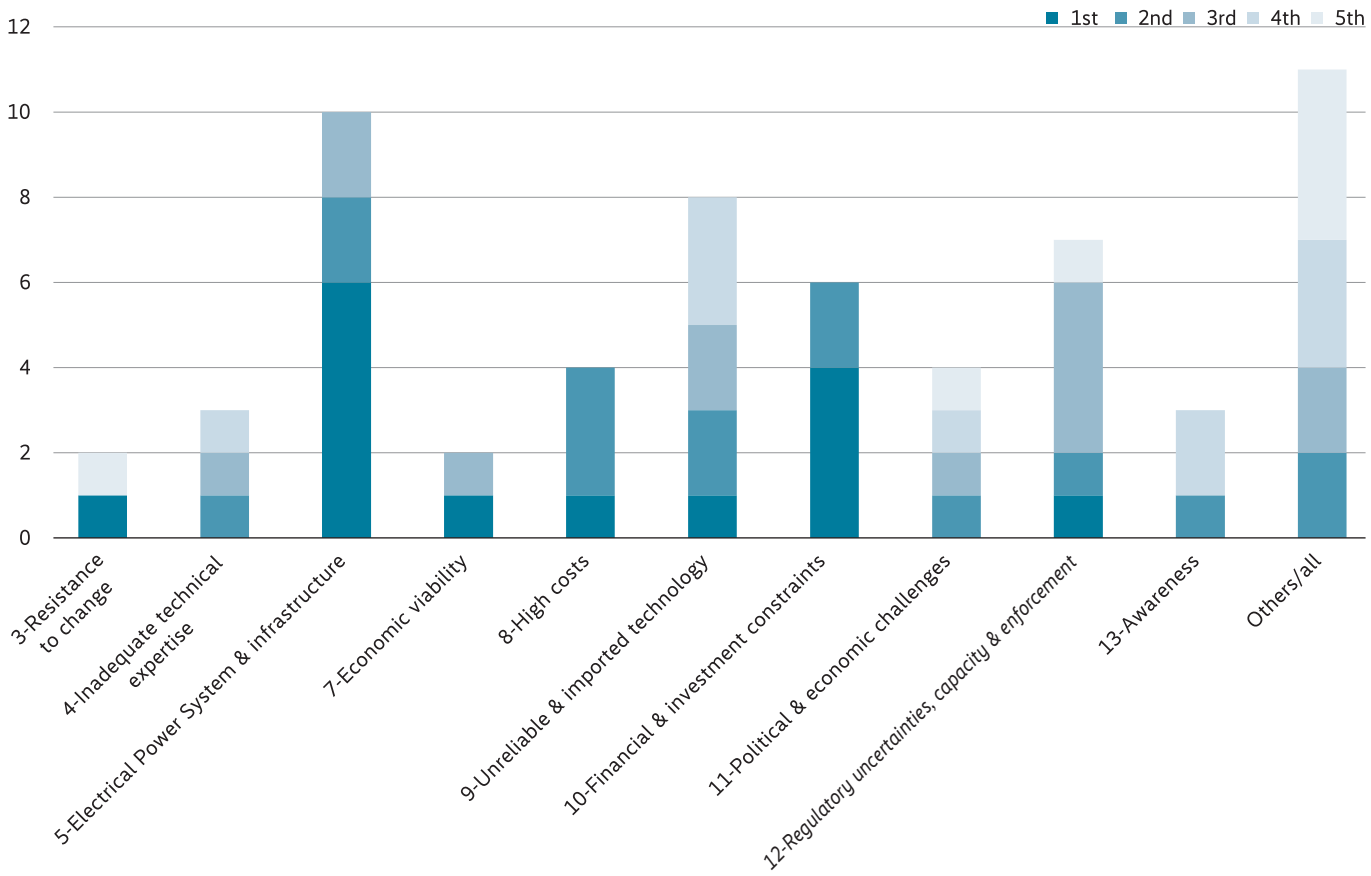


Figure 5, on the other hand, reveals that the biggest threat for state actors is suggested to be electrical power system and infrastructure (10 votes), followed by unreliable and imported technology (8 votes), regulatory uncertainties, capacity, and enforcement (7 votes), financial and investment constraints (6 votes), high costs and political and economic challenges (4 votes each), inadequate technical expertise and awareness (3 votes each), and resistance to change and economic viability (2 votes each).

Threats posed by the Green Transition to State Actors

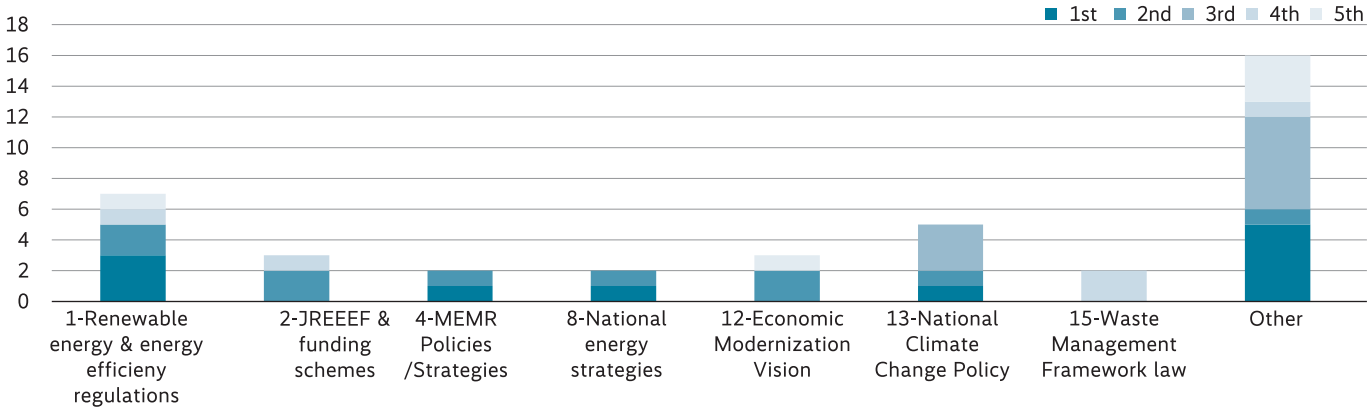
Fig. 5



The policies that increase the interests of state actors are suggested to be the renewable energy and energy efficiency law and related legislations (7 votes), National climate Change Policy (5 votes), Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) and funding schemes, the Economic Modernization Vision (3 votes each), MEMR policies and strategies, national energy strategies, and Waste Management Framework (2 votes each) (see Figure 6). Table 3 reveals that state actors assess the actual implementation of the stated policies to be relatively medium (2.29 on average). Within state actors, public sector participants had a higher assessment of the actual implementation of policies in comparison to the executive/administration/research actors.

Policies Increasing Interest in the Green Transition for State Actors

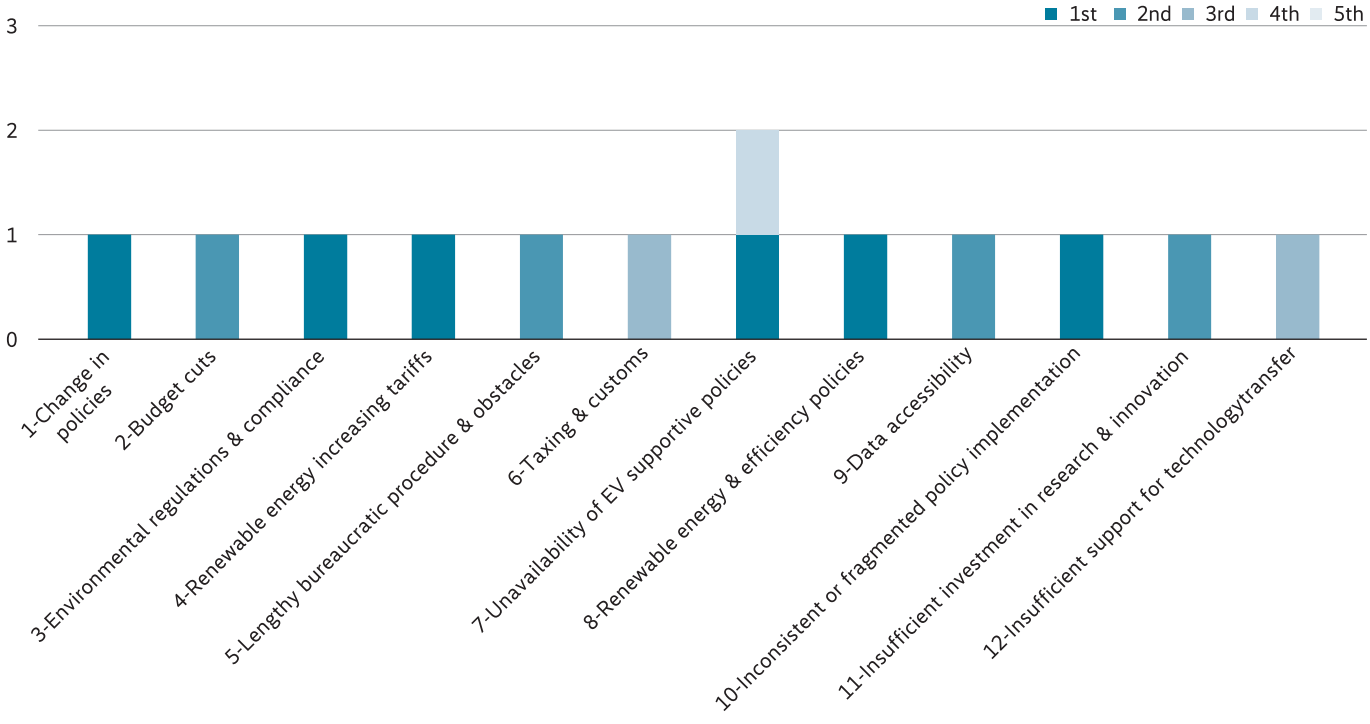
Fig. 6



The policies that diminish interests in the green transition among state actors include unavailability of EV supportive policies (2 votes), and different policies stated only once by state actor participants (see Figure 7). The actual implementation of the policies that diminish state actors' interests is assessed to be medium (average 2.09) with a slightly higher assessment among the executive/administration/research participants than from public sector participants.

Policies diminishing Interest in the Green Transition for State Actors

Fig. 7



4.2.2 Businesspeople

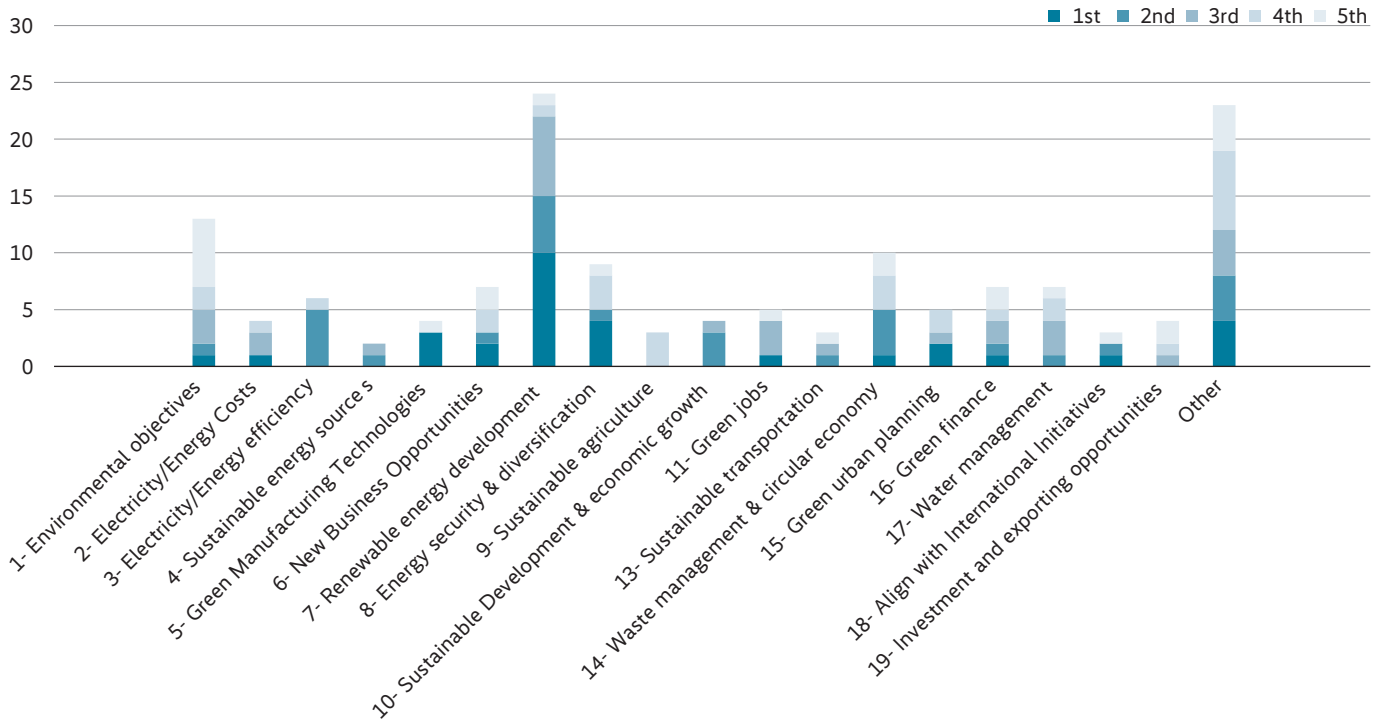
Various business sectors benefit or have the potential to benefit from the green transition. For instance, many Jordanian private enterprises provide inputs to the renewable energy sector. About 300 enterprises specializing in solar PV procurement, design, installation and O&M has been established since 2013 (IRENA, 2021, p. 30). One of the remarkable companies in the field is Philadelphia Solar which manufactures PV cells and mounting structures, and is the only module producer in the MENA region (producing certified Mono and Multi-Crystalline modules). Domestic PV cables are also produced that tackles local demand and exports. Several other industries could serve the renewable energy sector (ESCWA, 2018, pp. 38–39). Businesspeople in energy intensive industries have also potentially high interest in the green transition given the cost component that could be mitigated by the use of cheaper energy prices. In fact, there is growing resort to renewable energy generated electricity even if this covers partially private enterprises' needs, such as the case with Lafrage Cement and its solar PV project meant to serve its Rashadiya cement plant (with a capacity of 15.6 MW) (IRENA, 2021, p. 27).

In terms of interest representation, the most influential business association in Jordan is the Amman Chamber of Commerce (ACC). The ACC executive controls as well the umbrella wider organization of the Federation of Jordanian Chambers of Commerce (FJCC) that covers the whole country by bringing together local chambers. The ACC is a broad-based association with a democratic election process and mandatory membership for various business enterprises in different sectors (Moore, 2001).

On average, Table 3 reports that the business actors' set has the second highest positive interest after the state set. Business association actors have the highest interests within the businesspeople set and among all various actors, while business setups have the lowest. As depicted in Figure 8, the most common stated interests (interest categories) by business actors is by far renewable energy development (24 votes), then after a wide margin environmental objectives (13 votes), waste management and circular economy (10 votes), energy security and diversification (9 votes), new business opportunities, green finance, water management (7 votes each), electricity/energy efficiency (6 votes), green jobs, green urban planning (5 votes each), electricity/energy costs, green manufacturing technologies, sustainable development and economic growth, investment and exporting opportunities (4 votes each), sustainable agriculture, sustainable transportation, alignment with international initiatives (3 votes each), and (the use of) sustainable energy sources (2 votes).

Interersts of Business Actors in the Green Transition

Fig. 8

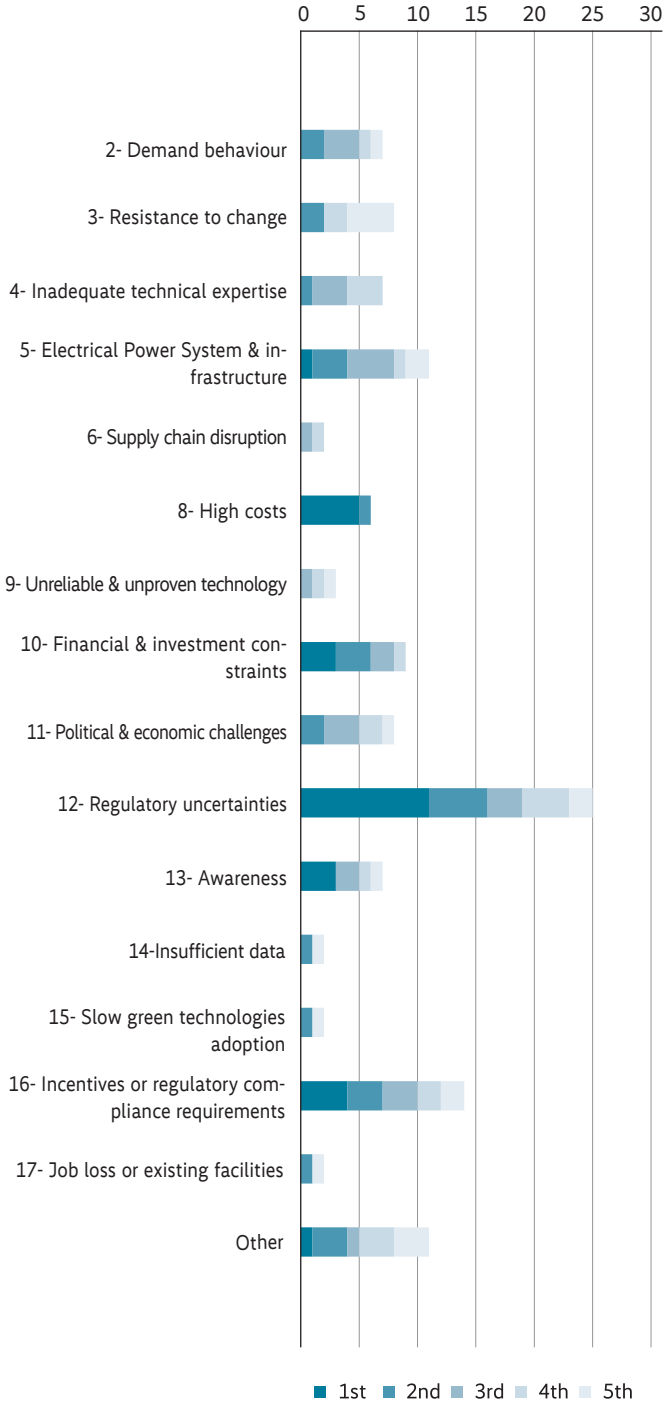


As for the threats posed by the green transition to business actors, the most common sources of threats (threat categories), is- by a wide margin from the rest- regulatory uncertainties, capacity and enforcement (25 votes). Then comes incentives or regulatory compliance requirements (14 votes), electrical power system and infrastructure (11 votes), financial and investment constraints (9 votes), resistance to change, political and economic challenges (8 votes each), demand behavior, inadequate technical expertise, awareness (7 votes each), high costs (6 votes), unreliable and imported technology (3 votes), supply chain disruptions, insufficient data, slow green technologies' adoption, and job loss or (lack of) training facilities (2 votes each).

The most commonly stated policy that increases the interests of business actors is renewable energy and energy efficiency regulations (12 votes), this is followed by green growth strategies, National Climate Change Policy (6 votes each), green finance strategy, fiscal incentives for renewable energy, green finance and green bond framework (5 votes each), national energy strategies, National Water Strategy and water efficiency (4 votes each), JREEEF and funding schemes, National Environmental Strategy and others, Waste Management Framework Law, electric vehicles incentives, carbon pricing (3 votes each), sustainable development support, and green hydrogen new strategies (2 votes each). Business actors have assessed the actual implementation of the stated policies as almost medium (1.79 on average), where business startups has the highest assessment (also among all actors) while the lowest assessment was provided by SME actors (3 and 1.4, respectively).

Threats posed by the Green Transition to Business Actors

Fig. 9



Policies Increasing Interest in the Green Transition for Business Actors

Fig. 10

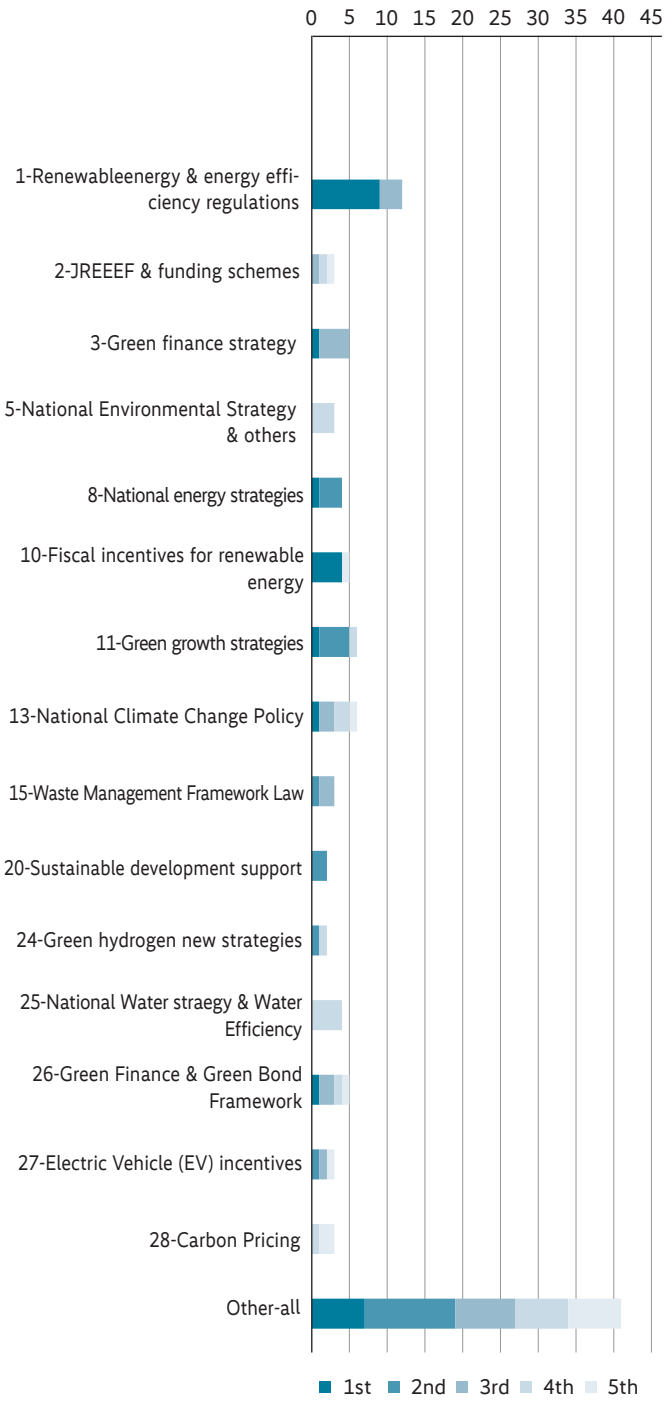
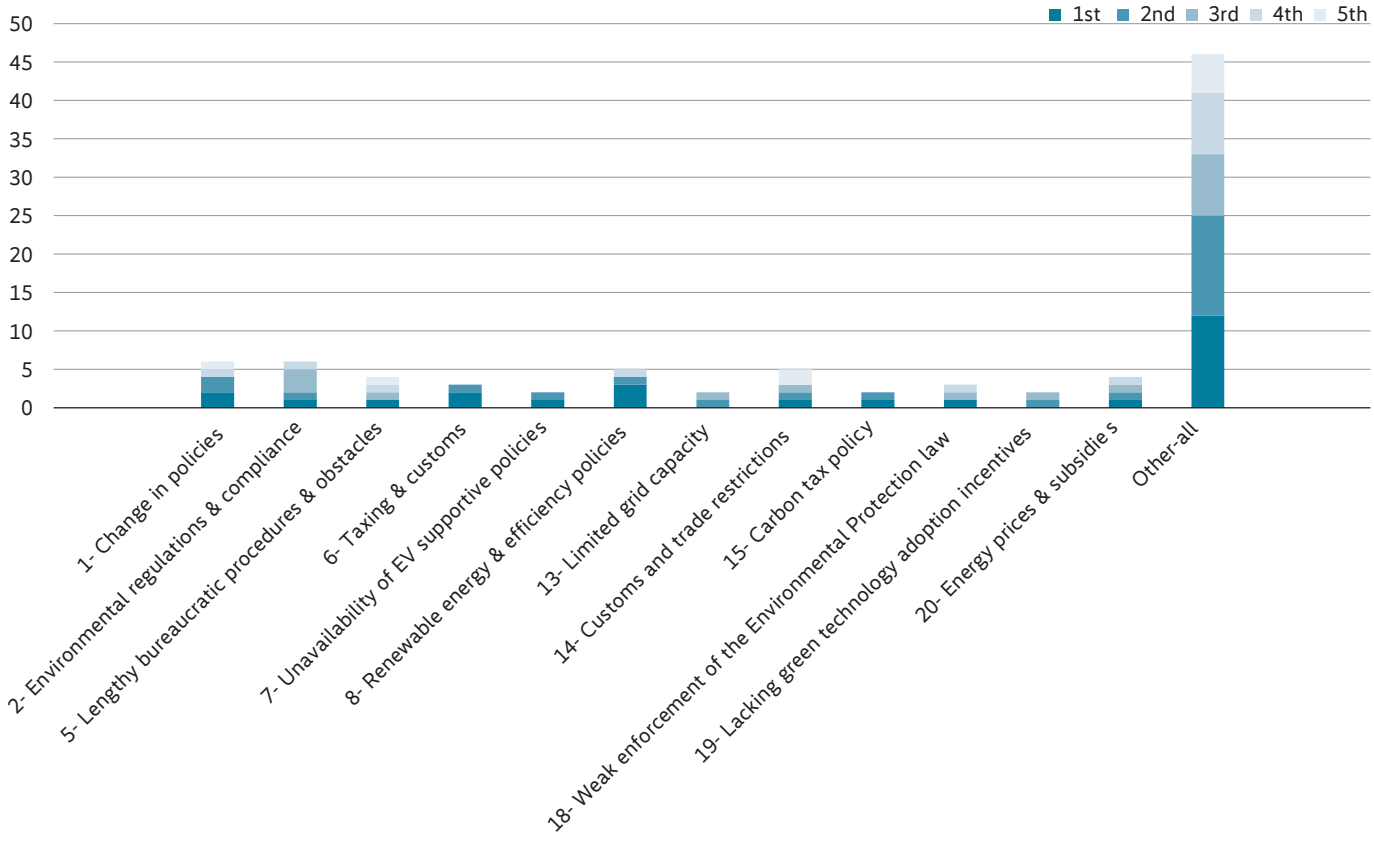


Figure 11 reveals that the most commonly stated policies that provide negative interests from the green transition for business actors are change in policies and environmental regulations and compliance (6 votes each). These are followed by renewable energy and efficiency policies, customs and trade restrictions (5 votes each), lengthy bureaucratic procedures and obstacles, energy prices and subsidies (4 votes each), taxing and customs, weak enforcement of the environmental protection (3 votes each), unavailability of EV supportive policies, limited grid capacity, carbon tax policy, and lacking green technology adoption incentives (2 votes each).

Business actors assessed the actual implementation of policies bringing threats from the green transition as medium (1.96 on average), with the highest assessment provided by SME and the lowest by business association actors (2.14 and 1.4, respectively).

Policies diminishing Interest in the Green Transition for Business Actors

Fig. 11



4.2.3 Labor

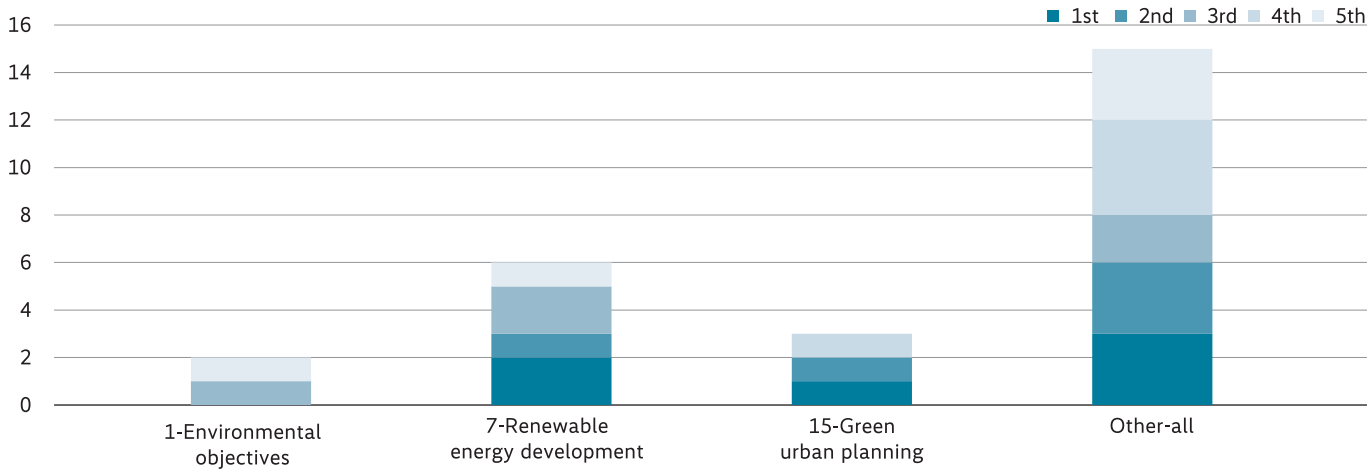
As previous studies suggested, labor's biggest interest in the green transition should be the frequently promised new green jobs (Sabry, 2024, 2025a). The Ministry of Labor's National Employment Plan targets, by 2030,10% of the jobs to be green jobs (GIZ, 2023, p. 10). A recent GIZ study estimated the labor working in green energy sector to be about 4.8 thousand, energy efficiency 1.7 thousand, transport between 31 thousand and 64 thousand and several other thousands in cleaner production activities (less related to the energy transition) (GIZ, 2023, pp. 16–17). A major risk, on the other hand, is job loss and the hardships faced by structural adjustment.

In terms of representation, the General Federation of Jordanian Trade Unions (GFJTU) was the biggest umbrella labor union federation under which about 17 official unions are organized. The GFJTU is controlled by the state and the constituting unions are generally less independent vis a vis the state. Moreover, civil service employees are denied membership in these unions (Lacouture, 2022, p. 57). There are as well several influential professional associations that are not considered as unions and are not part of the GFJTU such as the Jordanian Engineers Association (JEA). They were created by the state as a way to defend the professional needs and rights of their members and each one of these associations monopolize representation in their respective profession. They have some state administrative function including maintaining professional discipline and standards and managing health insurance and pension funds. Yet, they still have relatively high levels of autonomy and they are free to elect their boards. Many of these associations are controlled by Islamists, but leftists and nationalists used to be influential as well. Their political involvement increased since the late 1980s (Clark, 2013, pp. 158–175). Following the mass protests accompanying the Arab Spring, another independent federation was created in 2012, the Federation of Independent Trade Unions (JFITU); yet, it faced legal obstacles (Lacouture, 2022, p. 60).

Labor survey participants were limited in number and were mostly as well representatives of business enterprises. Interest in the green transition in the labor actors' set and despite being as well positive was the lowest among the four actors' sets (1.4 on average) and varied widely between being very high among the GFJTU participants (2 on average) and other labor participants (1 on average). The most commonly stated positive interest among labor actors is renewable energy development (6 votes), followed by green urban planning (3 votes), and environmental objectives (2 votes) (see Figure 12). As for commonly stated threats posed by the transition, these were: regulatory uncertainties, capacity and enforcement (5 votes), inadequate technical expertise, financial and investment constraints, incentives or regulatory requirements (3 votes), and high costs (2 votes).

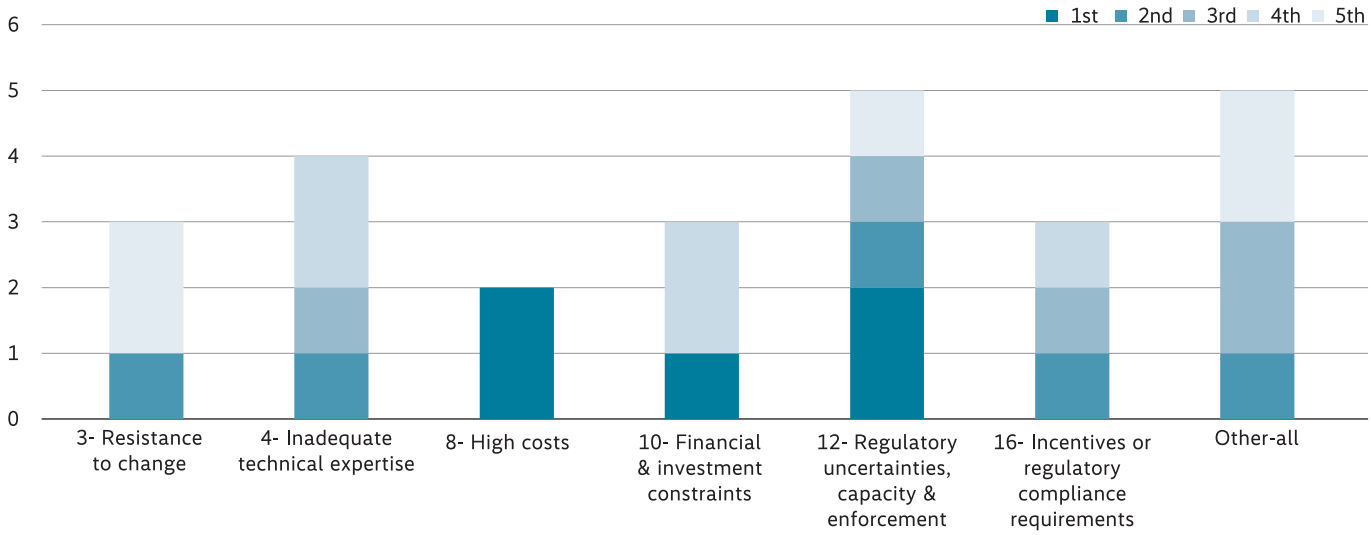
Interersts of Labor Actors in the Green Transition

Fig. 12



Threats posed by the Green Transition to Labor Actors

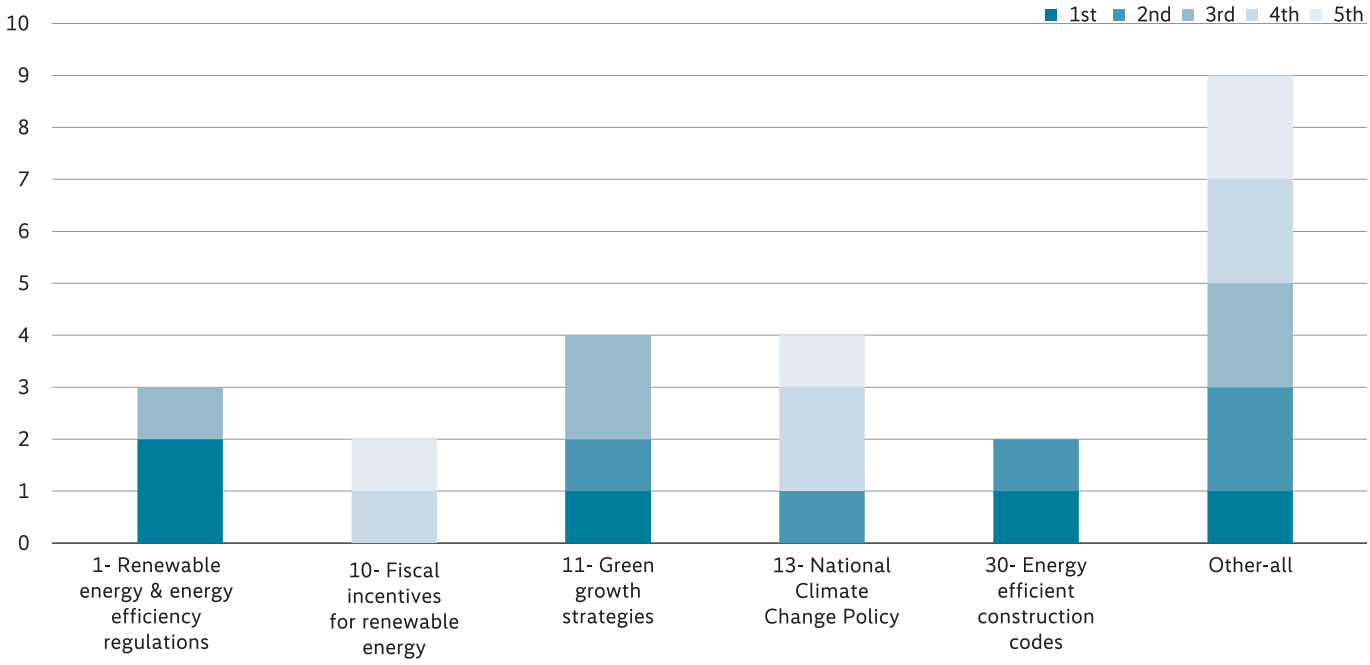
Fig. 13



Commonly stated policies suggested to increase labor interest in the green transition were stated by labor participants as (see Figure 14): green growth strategies, National Climate Change Policy (4 votes each), renewable energy and energy efficiency regulations (3 votes), fiscal incentives for renewable energy, and energy efficient construction codes (2 votes each). On the other hand, commonly stated policies increasing negative interests among labor actors were (see Figure 15): lengthy bureaucratic procedures and obstacles (3 votes) and renewable energy and efficiency policies (2 votes). The actual implementation of these policies was assessed as relatively low (average 1.4) for those bringing positive interests and medium for those bringing negative interests (average 2) (see Table 3).

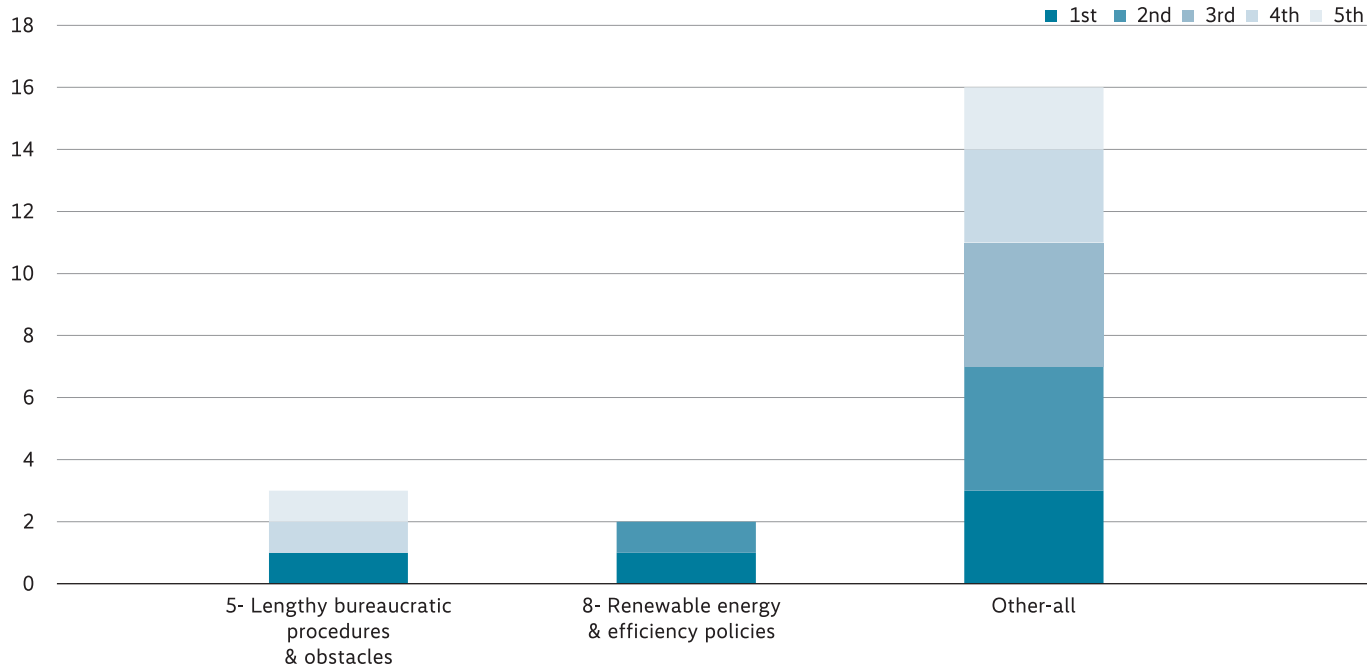
Interersts of State Actors in the Green Transition

Fig. 14



Interersts of State Actors in the Green Transition

Fig. 15



4.2.4 Civil Society Organizations

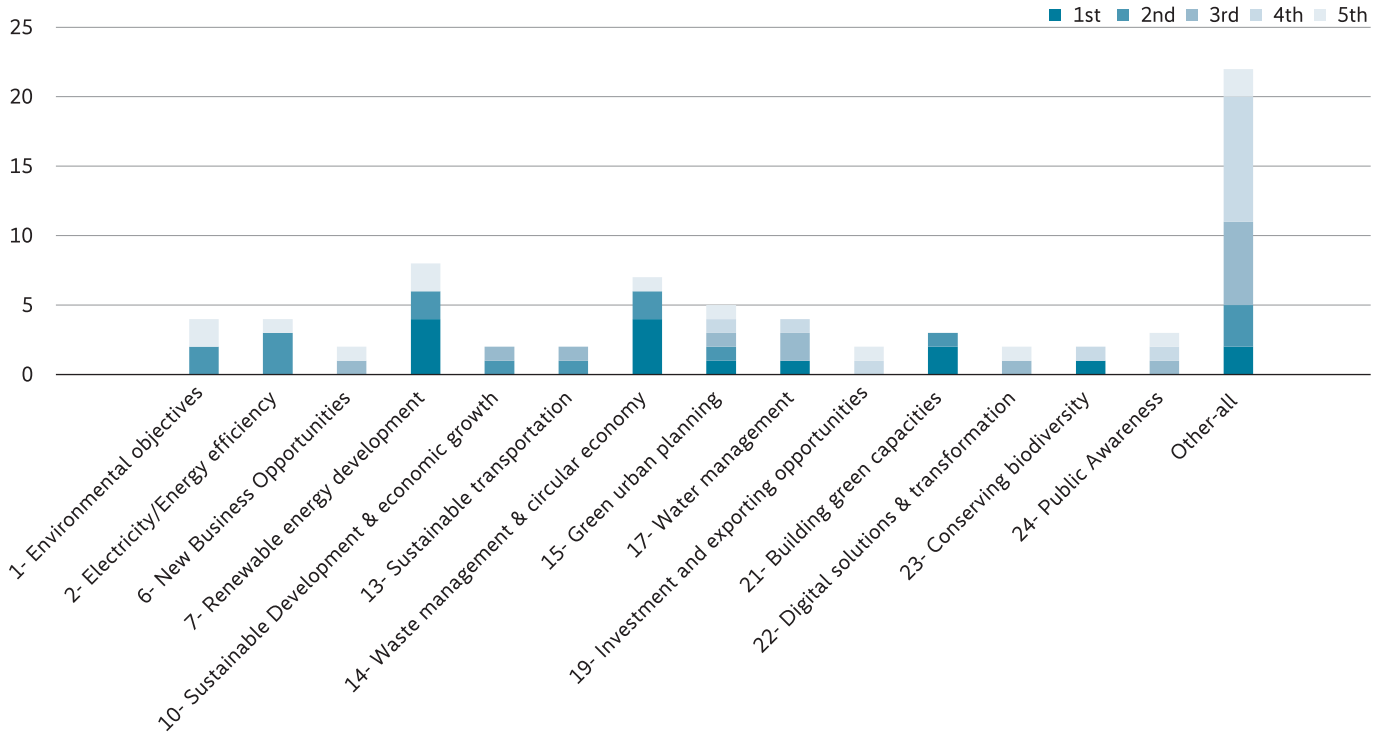
One of the most important missions of CSOs in the green transition is defending the interests of local communities, whether these are environmental, economic, or social. Local communities in many MENA countries (e.g.: Tunisia, Morocco) have often concerns on renewable energy projects especially with regard to land ownership and water use (Sabry, 2024, 2025a). Jordan seem to be different. In an empirical study, Komendantova et al. (2021) found that most of the surveyed local community representatives supported renewable energy projects in their communities. Locals believed that solar and wind energy projects would improve water availability, quality of air, and human health. They additionally had positive expectations on the possible socio-economic impacts of these projects and how they could contribute to job creation for the communities.

The surveyed CSO representatives shared a positive and high interest in green transition (average 1.6). The most commonly stated positive interests among CSO participants are (see Figure 16): renewable energy development (8 votes), waste management and circular economy (7 votes), green urban planning (5 votes), environmental objectives, electricity/energy efficiency, water management (4 votes each), building green capacities, public awareness (3 votes each), new business opportunities, sustainable development and economic growth, sustainable transportation, investment and exporting opportunities, digital solutions and transformation, and conserving biodiversity (2 votes each).

On the other hand, the commonly stated threats among CSO participants are (see Figure 17): regulatory uncertainties, capacity, and enforcement (12 votes), financial and investment constraints, awareness (7 votes each), inadequate technical expertise, electrical power system and infrastructure, political and economic challenges (4 votes each), high costs (3 votes), unreliable and imported technology, water scarcity, and neglecting nature conservation (2 votes each).

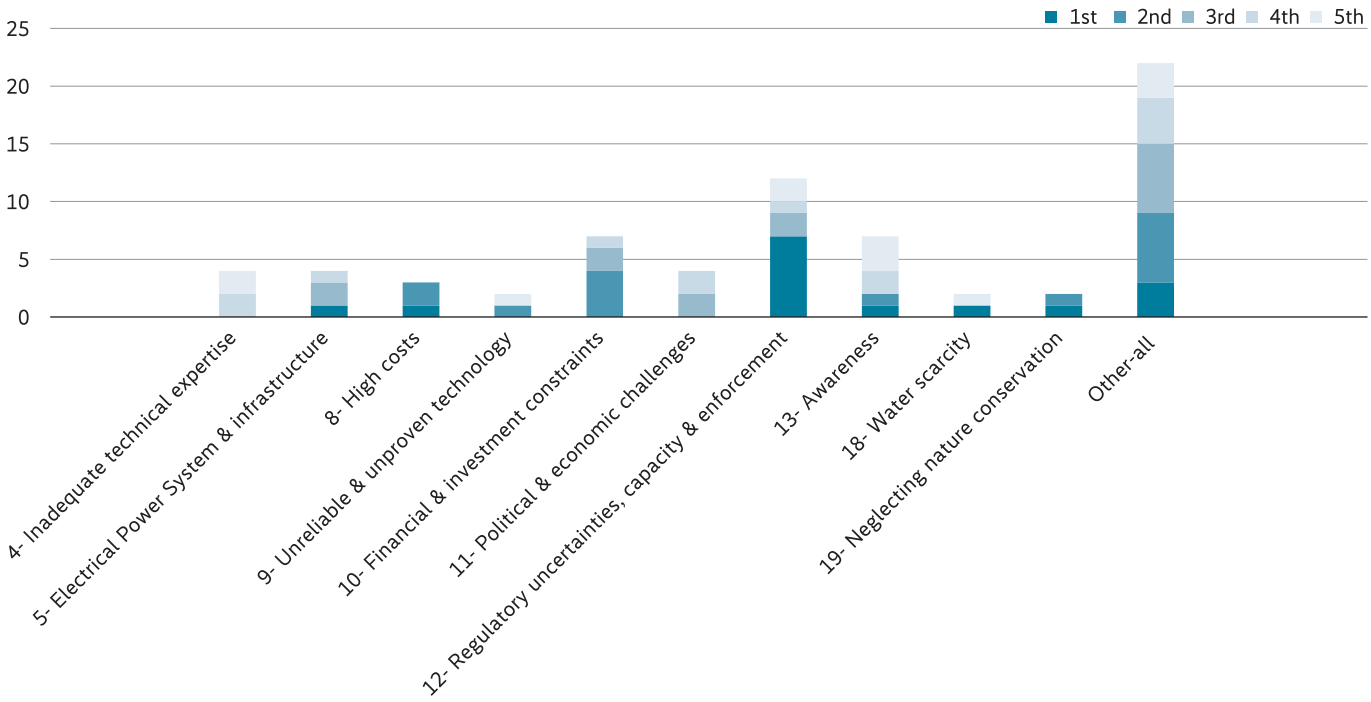
Interersts of State Actors in the Green Transition

Fig. 16



Threats posed by the Green Transition to CSO Actors

Fig. 17

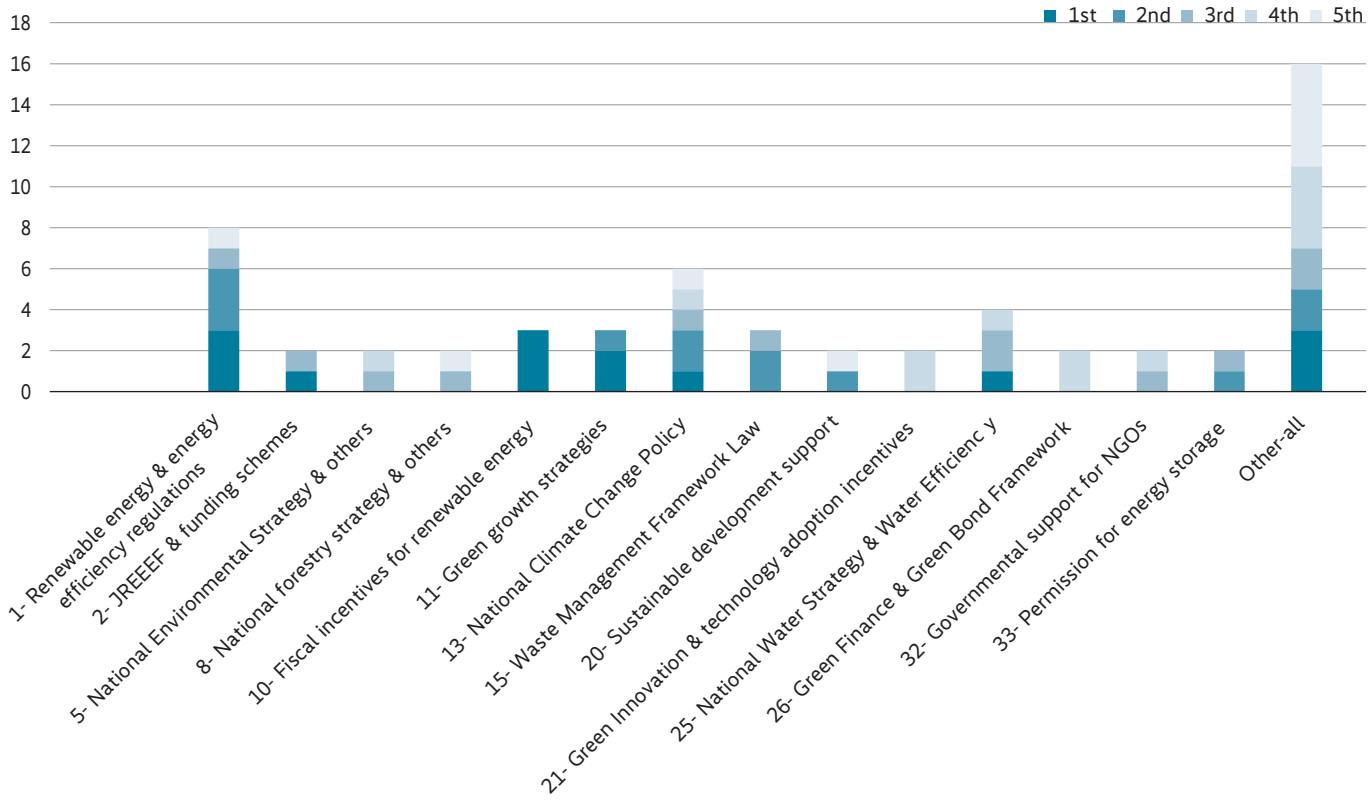


Policies stated by CSO participants that increase their interests in the green transition are (see Figure 18): renewable energy and energy efficiency regulations (8 votes), National Climate Change Policy (6 votes), National Water Strategy and Water Efficiency (4 votes), fiscal incentives for renewable energy, green growth strategies, Waste Management Framework Law (3 votes each), JREEEF and funding schemes, National Environmental Strategy and others, national energy strategies, sustainable development support, green innovation and technology adoption incentives, green finance and green bond framework, governmental support for NGOs, and permission for energy storage (2 votes each). As for policies that diminish these interests they were (see Figure 19): taxing and customs, renewable energy and efficiency policies, inconsistent or fragmented policy implementation (4 votes each), lack of environmental safeguards (3 votes), governmental support for NGOs, and inadequate water resources management (2 votes each).

CSO participants assessed the actual implementation of policies increasing and decreasing the interest in the green transition as relatively medium (1.6 and 1.92, respectively) (see Table 3).

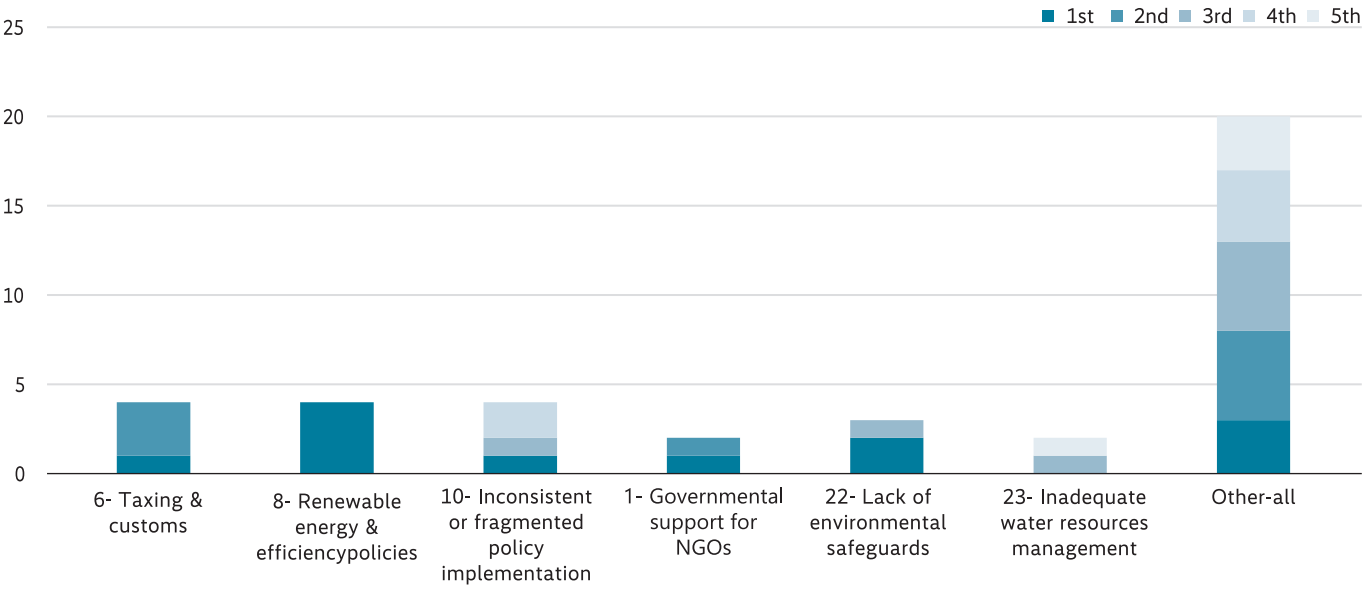
Interersts of State Actors in the Green Transition

Fig. 18



Policies diminishing Interest in the Green Transition for CSO Actors

Fig. 19



4.2 Power Dynamics

Jordan has been one of the very few MENA countries with a relatively more open state-society relations. Relatively freer elections, independent labor union and civil society, and the presence of opposition parties have been evident. Political parties were legalized in 1992. Yet, the only well organized, popular, and enduring party remains the Muslim Brother-based Islamic Action Front (IAF). Such settings allowed the state to have a smoother experience with the Arab Spring, where moderate constitutional, economic, and social reforms were demanded by demonstrators. The state managed to sail through those demands by offering some political concessions (Cammett et al., 2018, pp. 399–400, 413–414). Yet, the Monarchy remains the center of power in the country with a wide range of powers, including having the right to appoint the Prime Minister and the cabinet and the right to act as a legislator. To the contrary, the House of Representatives could not propose legislations on its own, although it could approve, amend or block them (Clark, 2013, p. 161).

Jordan had a long tradition of having collective lobbying of big business associations. The ACC was established in 1923 and used to effectively represent the interests of big business. Starting from 1961, however, membership in the ACC and internal voting rights were expanded to various business enterprises. This eventually led to diminishing big businesspersons' control on the leadership of the association inducing many to leave the ACC. Influence on policymaking also deteriorated in the 1980s and 1990s. The evolution towards a rentier state in Jordan, based on foreign aid and remittances, also played a role in shifting the power balance between the state and businesspeople, generally, which was translated into falling influence of the ACC on policymaking (Moore, 2001). On the other hand, big business tycoons resort to informal connections with the state- rather than lobbying through business associations- and manage to strongly shape policies and legislations. Moreover, connected businesspersons are rewarded though their relationship with the state by various remarkable benefits, such as privileged access to information on business chances, some licenses and permits, public procurements, tax exemptions, and even contract enforcement (Loewe et al., 2008). As another manifestation of strong state-business relations, many partnerships between both sides such as big joint ventures (including as well foreign investors) were witnessed in the cement and fertilizers; but also the state had remarkable equity shares in private enterprises in the mining sector (about 42%), manufacturing (23%), and others (Cammett et al., 2018, pp. 252–253).

The relationship between the state and labor tends to be less significant than state-business relations. Part of the state power vis a vis labor emerges from being a major employer in the country. About 26% of total employment is in the public sector with as much as 265 thousand employed in the civil bureaucracy in 2017 (Al Khouri & Silcock, 2021, p. 196). As stated earlier, the state controls the GFJTU as the single representative of trade unions and professional associations are not part of the GFJTU and could not, thus, use this larger organization as a lobbying platform. Nevertheless, and following Arab Spring protests, several independent labor unions emerged especially among recently privatized enterprises, such as the workers of the Jordan Phosphate Mines Company (JMPC), fostering the emergence of the Jordanian Federation of Independent Trade Unions (JFITU). This federation union had more than 12 independent unions by the late 2012. The state, however, managed to contain labor activism that supported mass protests in different places in Jordan, including Amman. By offering significant concessions to some workers such as phosphate workers, the demobilization of mass labor movement was realized, and the independent JFITU was obstructed by significant legal constraints (Lacouture, 2022, p. 60).

Box 2

As discussed

As discussed earlier in this paper, actors' capability to defend their interests could be assessed through: a)- internal representation and b)- external representation. As reported in Table 4 and Figure 20, the various actors tended to be more satisfied with internal representation of their representative organizations in comparison to these organizations' external representation. State actors reported the highest levels of satisfaction from internal representation of their interests within state organizations, which tended to be high (average 2.54) and higher for public sector enterprises (average 2.6). Among the four actor sets, CSO actors are the second mostly satisfied about their interest representation within CSO interest representation organizations (average of 2.33). They are followed by business actors (average of 2.07), where SME participants' perception of interest representation is slightly higher (average of 2.07) within business organizations (e.g.: business associations) than either large private enterprises or business startups' perception (both with an average of 2). Labor actors are the least who believe that their interests are well represented (average of 2) in their organizations (e.g.: labor unions), with a remarkably lower figure for members of the GFJTU (average of 1.5). These relations somehow differ with regard to how actors' representative organizations are perceived to defend interests vis a vis external actors. The strongly defended interests are believed to be those of state actors (i.e.: through state ministries and agencies), the second are business actors' (i.e.: via business associations), followed by CSO actors', and the least are that of labor actors' (i.e.: through labor unions) (2.31, 1.89, 1.75, and 1.6, respectively). Within the various individual actors, public sector enterprises' participants are the mostly satisfied about their organizational representation vis a vis all external actors (average of 2.6, that is to say, high) while the GFJTU representatives are the least satisfied (average of 1, that is to say, low). Figure 20 clearly shows the unique lower position of interest representation of various actors vis a vis labor unions.

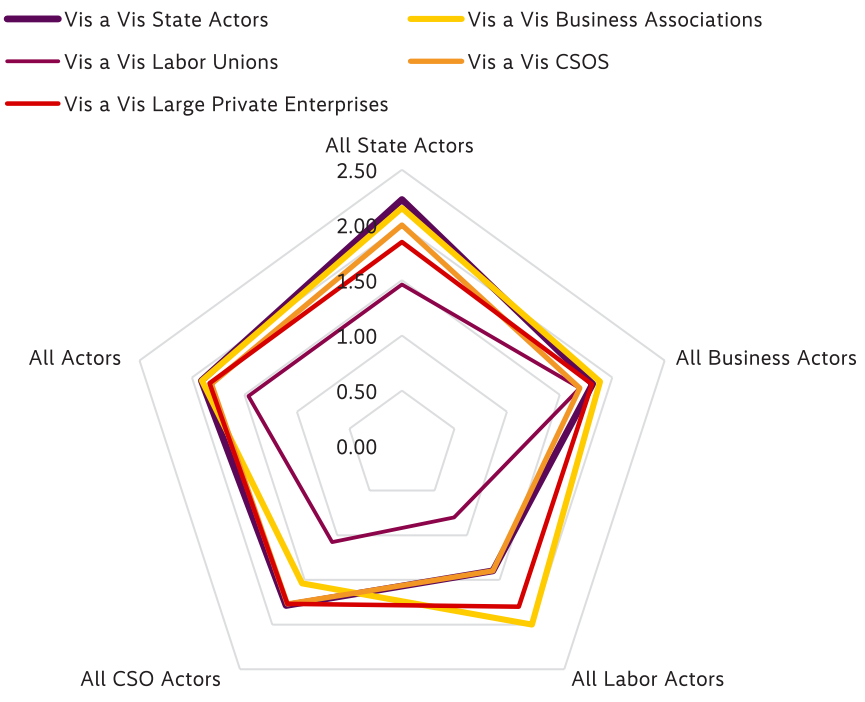
Power Relations among different Actors

Tab. 4

	No. of Participants	Internal Representation	External Representation	Vis a Vis State Actors	Vis a Vis Business Associations	Vis a Vis Labor Unions	Vis a Vis CSOs	Vis a Vis Large Private Enterprises	Interest Representation Cohesion
Public Sector	*5*	*2.60*	*2.60*	*2.80*	*2.40*	*1.20*	*2.20*	*2.20*	*2.67*
Executive/Administration/Research	*9*	*2.50*	*2.13*	*1.88*	*2.00*	*1.63*	*1.88*	*1.63*	*2.00*
All State Actors	*14*	*2.54*	*2.31*	*2.23*	*2.15*	*1.46*	*2.00*	*1.85*	*2.20*
Business Association	*5*	*2.25*	*2.25*	*2.00*	*2.25*	*1.75*	*1.75*	*2.00*	*2.67*
ge Private Enterprise	*7*	*2.00*	*1.86*	*1.71*	*1.86*	*1.71*	*1.86*	*1.71*	*1.86*
SME	*15*	*2.07*	*1.79*	*1.79*	*1.77*	*1.62*	*1.54*	*1.79*	*1.92*
Business Startup	*2*	*2.00*	*2.00*	*2.00*	*2.00*	*2.00*	*2.00*	*2.00*	*2.00*
All Business Actors	*29*	*2.07*	*1.89*	*1.81*	*1.88*	*1.69*	*1.69*	*1.81*	*2.00*
GFJTU	*2*	*1.50*	*1.00*	*1.50*	*2.00*	*1.00*	*1.00*	*2.00*	*2.00*
Independent Labor Union	*1*	*2.00*	*2.00*	*1.00*	*2.00*	*0.00*	*2.00*	*1.00*	*1.00*
Other	*2*	*2.50*	*2.00*	*1.50*	*2.00*	*1.00*	*1.50*	*2.00*	*2.00*
All Labor Actors	*5*	*2.00*	*1.60*	*1.40*	*2.00*	*0.80*	*1.40*	*1.80*	*1.75*
All CSO Actors	*15*	*2.33*	*1.75*	*1.75*	*1.45*	*0.91*	*1.73*	*1.73*	*1.75*
All Actors (Average)	*60*	*2.25*	*2.00*	*1.91*	*1.91*	*1.46*	*1.81*	*1.83*	*2.00*
Standard Deviation	*..*	*0.74*	*0.74*	*0.84*	*0.71*	*0.97*	*0.75*	*0.80*	*0.72*

Power Relations among different Actors

Fig. 20



For assessing the levels of coordination among the different actors, two indicators are constructed based on the survey. The first is termed (inter-actors') relation and the second is "coordination". As discussed earlier, inter-actors' relations is calculated by the geometrical mean of three survey questions: how the actors assess mutual trust, common understanding, and past experiences. The geometric mean is taken in order to decrease the value of scores when one of the three constituent indicators is low. The second was obtained by a direct question on the participants' assessment of the level of coordination in the green transition. While coordination reports perceived level of present coordination among the different actors, the relationship indicator provides an insight on the prospective of coordination. Thus, if the coordination score is high while the relationship score is low, it is more likely that the present levels of coordination might not persist, and vice versa. However, higher scores of both indicators suggest the persistence of high coordination on the medium run; and, to the contrary, lower scores in both suggest the persistence of low coordination on the medium run.

Table 5 and Figures 21 and 22 report the obtained results for these indicators. Table 5 and Figure 21 tell us that coordination with the state tends to be medium, except for inter-state actors which is high (average of 2.57) and especially between the public sector and all state actors. However, the relationship between the state and individual state actors (i.e.: inter-state relations) is medium (average of 1.9) and low with other actors (state-society relations) (average of 1.23 with business, 1.15 with CSO, and 0.92 with labor actors). Together this suggests that while coordination among state actors could remain high, state-societal coordination in the green transition is not high and it is likely that it might even fall.

As for businesspeople, the coordination on the green transition is perceived as medium with all actors including inter-business coordination (the lowest with CSO actors, with an average of 1.54). Businesspeople's relationships tend to be, however, low, even for inter-business relationshipsza, with the exception of the relationship with state actors which is barely slightly medium (average of 1.5). Again, coordination between businesspeople and different actors is not likely to grow from its present medium levels.

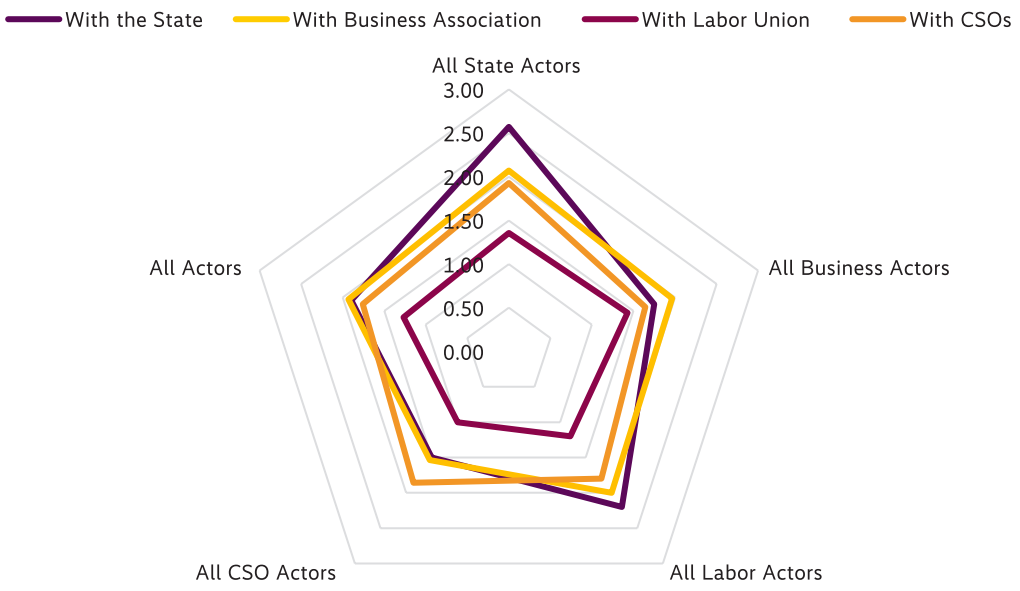
CSOs' coordination with various actors tends to be medium (even inter-CSOs coordination). CSOs' relationships with different actors tend to be medium or not far from being medium (1.44 with businesspeople and 1.45 with labor actors). Thus, it is likely that CSO actors' coordination with various actors would likely persist to be medium in the medium run.

Finally, labor actors' coordination with various actors- even inter-labor coordination- tends to be low (although it is medium with some actors within the different actor sets). Labor's relationships with various actors tend to be low (except for business associations, where the score is 1.57). Thus, it is likely that coordination between labor and various actors including inter-labor coordination will continue to be low in the medium run.

Figure 21 shows that a clear order for the strength of coordination exists among the actor sets. State actors are the most coordinated among themselves and with others, followed by business actors, then CSO actors and, finally, the least (with an obvious margin) are labor actors. Figure 22, on the other hand, shows a more mixed picture, but the only clear observation is that labor actors relationships are the lowest (with an obvious margin).

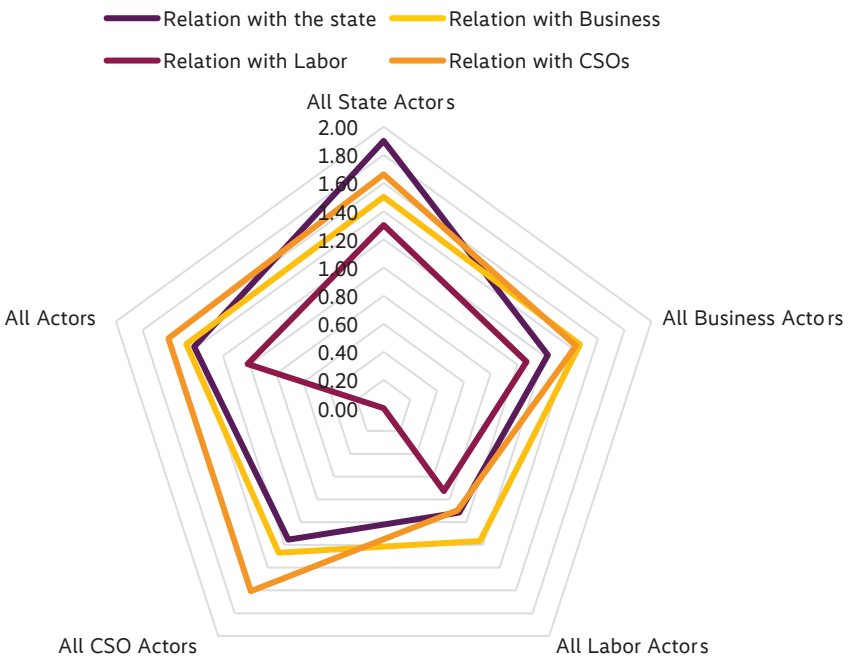
Coordination among different Actors

Fig. 21



Inter-Actors' Relationships

Fig. 22



Relationship and Coordination among Actors

Tab. 5

		With the State		With Business		With Labor		With CSOs	
	Number of Participants	Relation	Coordination	Relation	Coordination	Relation	Coordination	Relation	Coordination
Public Sector	5	1.89	2.80	1.71	2.40	1.29	1.00	1.71	2.40
Executive/Administration/Research	9	1.90	2.44	1.39	1.89	1.30	1.56	1.61	1.67
All State Actors	14	1.90	2.57	1.50	2.07	1.30	1.36	1.66	1.93
Business Association	5	1.29	2.60	1.98	2.40	1.57	1.80	2.18	1.80
Large Private Enterprise	7	1.38	1.67	1.48	1.71	1.22	1.33	1.49	1.50
SMEs	15	1.20	1.47	1.41	1.93	0.83	1.27	1.08	1.60
Business Startup	2	..	2.00	..	2.00	..	2.00	2.08	2.00
All Business Actors	29	1.23	1.75	1.47	1.97	1.07	1.43	1.44	1.64
GFJTU	2	0.94	2.00	1.21	2.00	1.09	1.50	1.38	1.50
Independent Labor Union	1	..	1.33	1.30	1.67	..	1.00	1.67	1.67
Other	2	1.71	2.50	1.36	2.00	1.14	1.50	..	2.00
All Labor Actors	5	0.92	1.90	1.24	1.90	0.90	1.40	1.45	1.70
All CSO Actors	15	1.15	1.50	1.27	1.54	..	1.00	1.61	1.86
All Actors	60	1.42	1.90	1.47	1.93	1.02	1.27	1.61	1.76

Table 6 and Figure 23 delve more into the characteristics of the coordination led by the state. Inter-state actors' consultation is medium (average of 2) and so is its level of shaping regulations related to the green transition (average of 1.86). State consultation frequency with business actors tends to be low and the same for shaping regulations (averages of 1.11 and 1.18, respectively), although it is relatively higher with business association actors (averages of 1.6 for both indicators, that is to say medium). Consultation frequency and shaping regulations are also low for labor actors (averages of 1.25 and 1.25) and CSO actors (averages 1.2 and 1.4, respectively). Most of the interactions between the various actors and the state on the green transition take place mostly with the Ministry of Energy and the Ministry of Environment and then- after a wide margin- local authorities, and the Ministry of Industry, respectively.

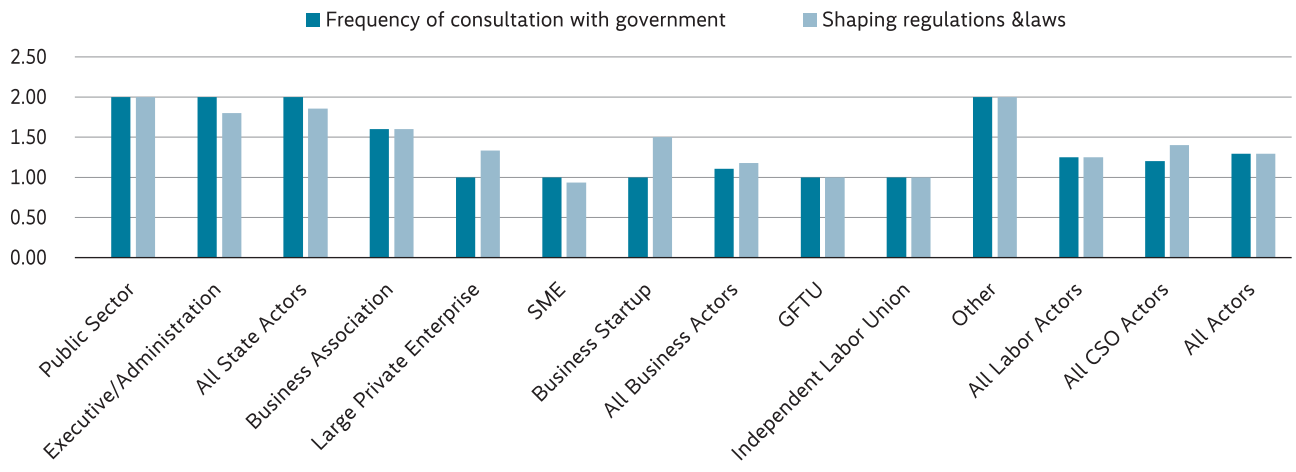
Actors' Interaction with the State

Tab. 6

	Number of Participants	Frequency of consultation with government	Shaping regulations &laws	Number of Participants discussing policies with: Ministry of Energy	Ministry of Industry	Ministry of Environment	Local Authorities	Other	Examples of Other Government Agencies
Public Sector	5	2.00	2.00	2	0	1	0	1	*Energy and mineral regulatory commission*
Executive/Administration/Research	9	2.00	1.80	2	1	3	2	2	
All State Actors	14	2.00	1.86	4	1	4	2	3	
Business Association	5	1.60	1.60	5	2	5	2	2	*EMRC; Central Bank of Jordan; Amman stock of exchange; Ministry of Water; NEPCO; JGBC; REES; JEA; JSMO*
Large Private Enterprise	7	1.00	1.33	5	1	3	2	2	
SME	15	1.00	0.93	12	6	9	2	1	
Business Startup	2	1.00	1.50	1	0	1	0	0	
All Business Actors	29	1.11	1.18	23	9	18	6	5	
GFJTU	2	1.00	1.00	2	1	1	1	0	
Independent Labor Union	1	1.00	1.00	1	0	1	0	0	
Other	2	2.00	2.00	1	1	1	0	0	
All Labor Actors	5	1.25	1.25	4	2	3	1	0	
All CSO Actors	15	1.20	1.40	6	0	7	5	1	*Energy and Mineral Regulatory Commission.*
All Actors	60	1.29	1.29	35	11	31	13	9	

Actors' Interactions with the State

Fig. 23



5.
Assessing the Pathway and Recommendations

As discussed earlier, assessing the green transition pathway of Jordan could be done through looking at the typology of interests among the different actor sets (to assess the extractivity/inclusivity), as well as to the level of interest in/against of those actors, their level of interest representation, and coordination (to assess the stability of the pathway).

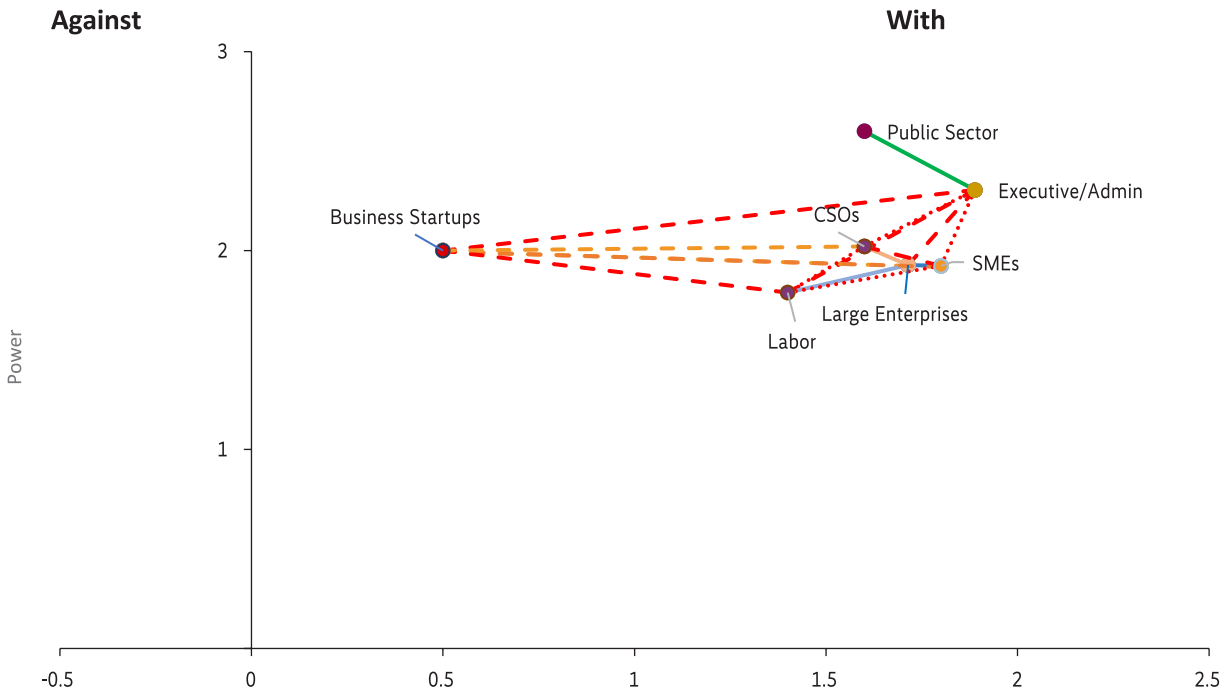
Figure 24 uses the data obtained from previous tables and figures on various actors' level of interest in the green transition, interest representation, and coordination. Power relations (interest representation) is sketched on the Y-axis while interest intensity is drawn on the X-axis. The level of coordination is depicted by the line connecting the various actors, with doted line indicating low, dashed line medium, and continuous line strong relations. Level of interest in the green transition is simply obtained from the direct question asked to the different participants. The level of interest representation is obtained from the geometric mean of internal and external interest representation of each actor. The participants' stated level of coordination is rounded to either low, medium, or high and the corresponding line is drawn accordingly.[4]

As depicted in Figure 24, none of the actor sets or even the individual collective actors has a negative or even neutral interest in the green transition. All has on average positive interest. There are several collective actors with positive interest in the transition, these actors are from different actor sets, and almost none with a negative interest in the transition. Accordingly, Jordan's pathway can not be identified as extractive and it tends to be more inclusive even if the level of positive interests varied among actors and actor sets.

In terms of stability, the pro-transition coalition has various actors including the most powerful in terms of interest representation, such as state actors. The level of coordination, however, tended to be medium. The executive seems to be at the center of the pro-coalition, given its power, strong coordination with SOEs and medium level of coordination with all other actors. Hence, the green transition pathway in Jordan will be stable, at least in the medium run.

Green Transition Policy Coalitions in Jordan

Fig. 24



On the X-Axis, actors' level of interest is sketched based on Question II-A, on the Y-Axis actors' level of representation is sketched based on the geometric mean of Questions III-B and III-C, and the thickness of the lines joining the different points representing actors is estimated based on Questions IV-E, IV-F, IV-G, and IV-H. In green are the lines referring to coordination among actors from the same actor set, while in red are lines of coordination between actors from different actor sets.

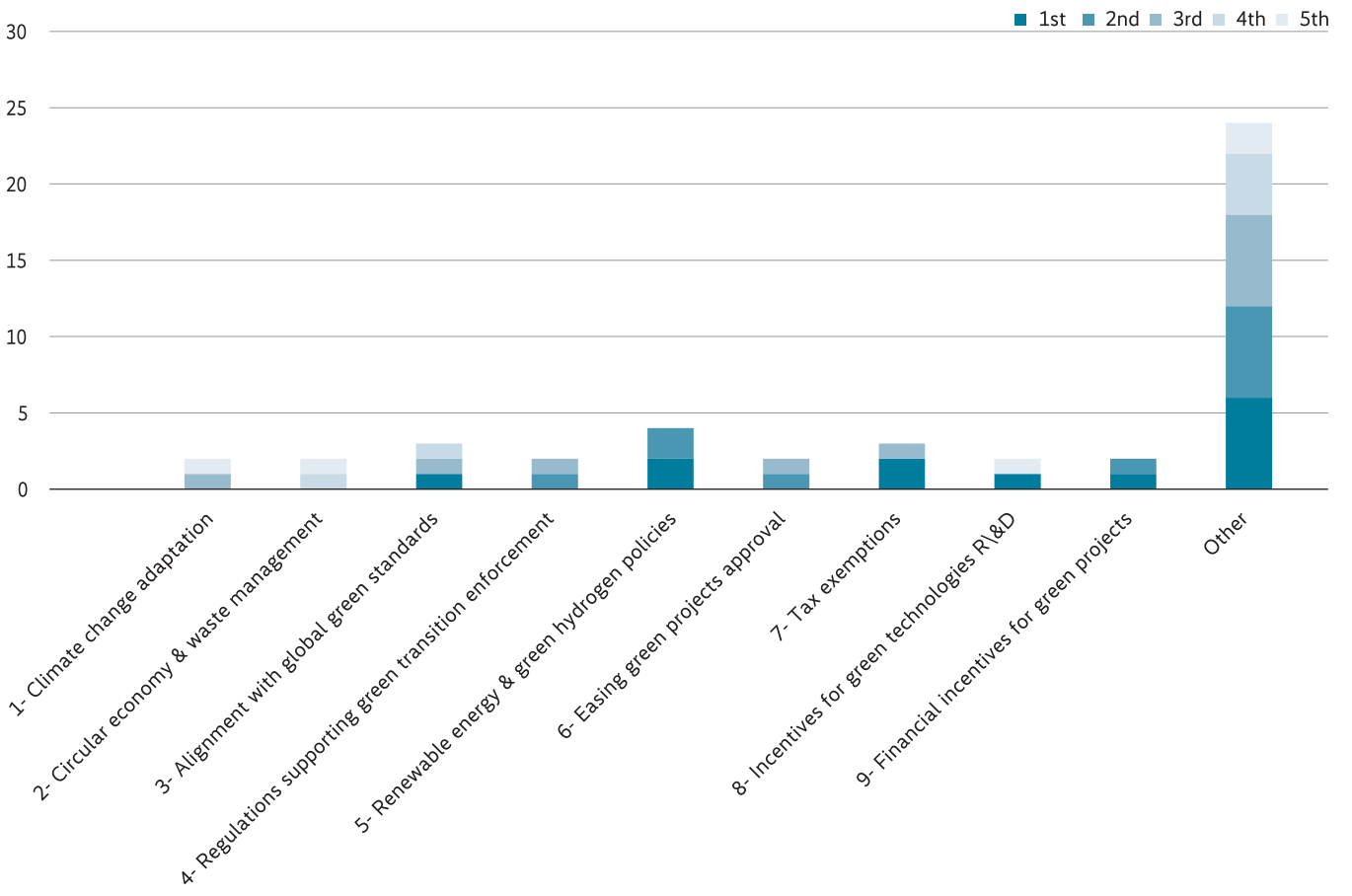
The pathway could be more inclusive and stable if the interests of the various actors were addressed in a balanced way that would maximize their benefits without causing major risks. It is for this purpose that the participants were asked about which policies could increase their interests in the green transition (Question II-H)?

The various participants recommend different policies, some of which are grouped into policy categories (full description is at Table A.1 at the Appendix). The most common policy (categories) suggestions are, for state actors (see Figure 24): renewable energy and green hydrogen policies (4 votes), alignment with global green standards, tax exemptions (3 votes each), climate change adaptation, circular economy and waste management, regulations supporting green transition enforcement, easing green projects approval, incentives for green technologies and R&D, and financial incentives for green projects (2 votes each).

For business actors, these are (see Figure 25): financial incentives for green projects (14 votes), incentives for green technology adoption and innovation (7 votes), green infrastructure (6 votes), tax exemptions, government-backed training, energy efficiency regulations (5 votes each), renewable energy and green hydrogen policies, incentives for green technologies R&D, capacity building and awareness, green buildings incentives, green public procurement, develop green public-private partnerships, grid-related policies (4 votes each), and carbon pricing and Emissions Trading Systems (ETS) (3 votes). For labor actors (see Figure 26), these are: financial incentives for green projects (4 votes), easing green projects approval, government-backed training, incentives for green technology adoption and innovation, and develop green public-private partnerships (2 votes each).

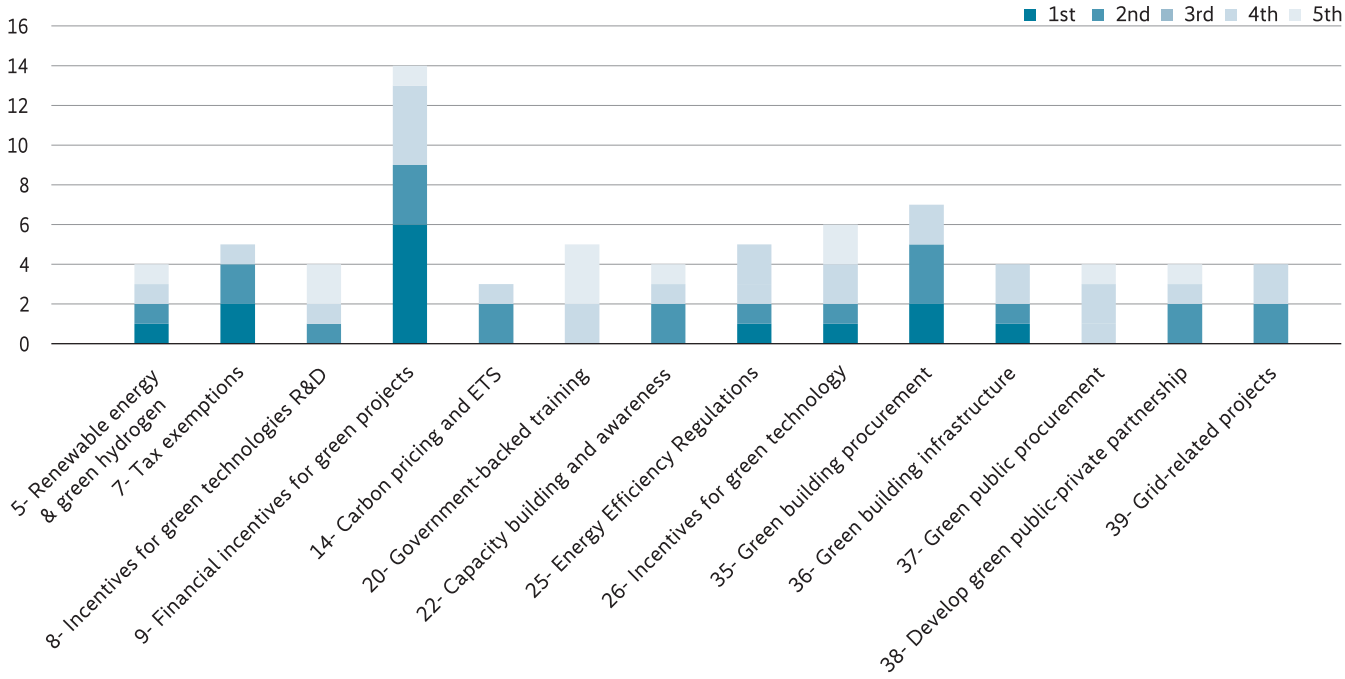
Recommended Policies by State Actors

Fig. 25



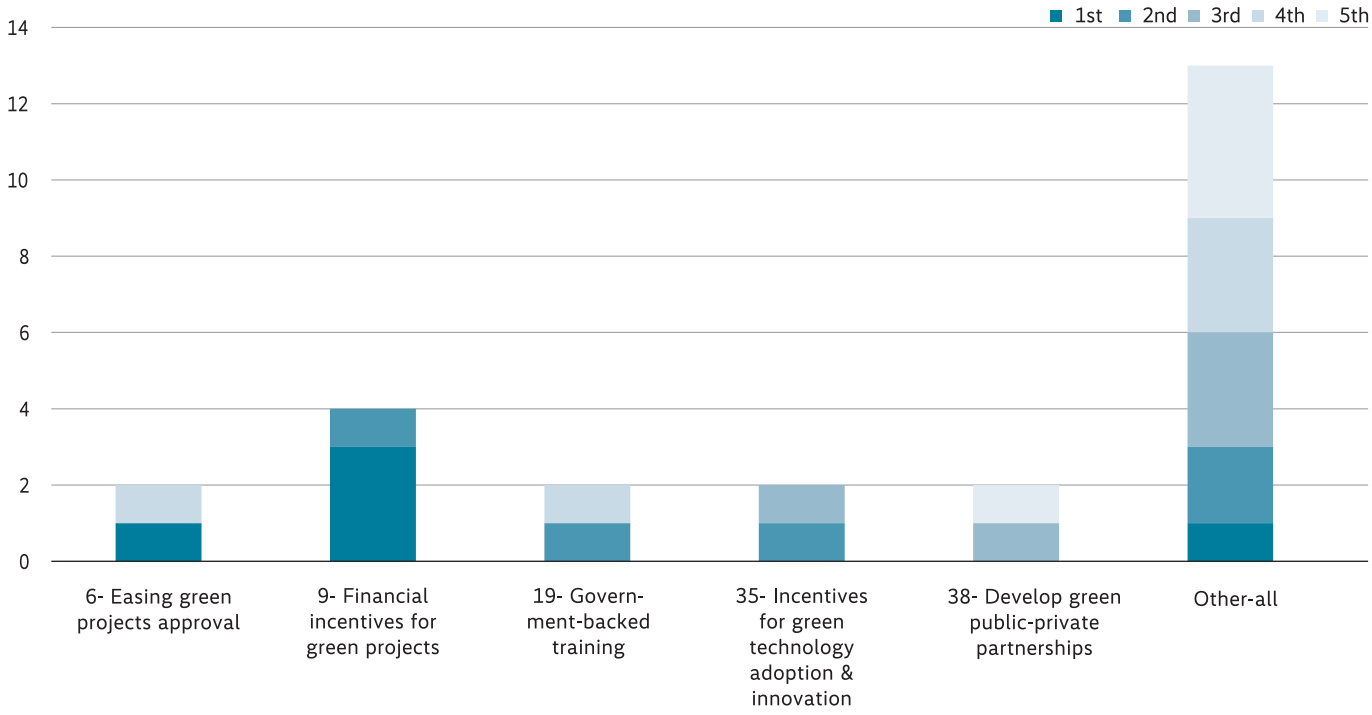
Recommended Policies by Business Actors

Fig. 26



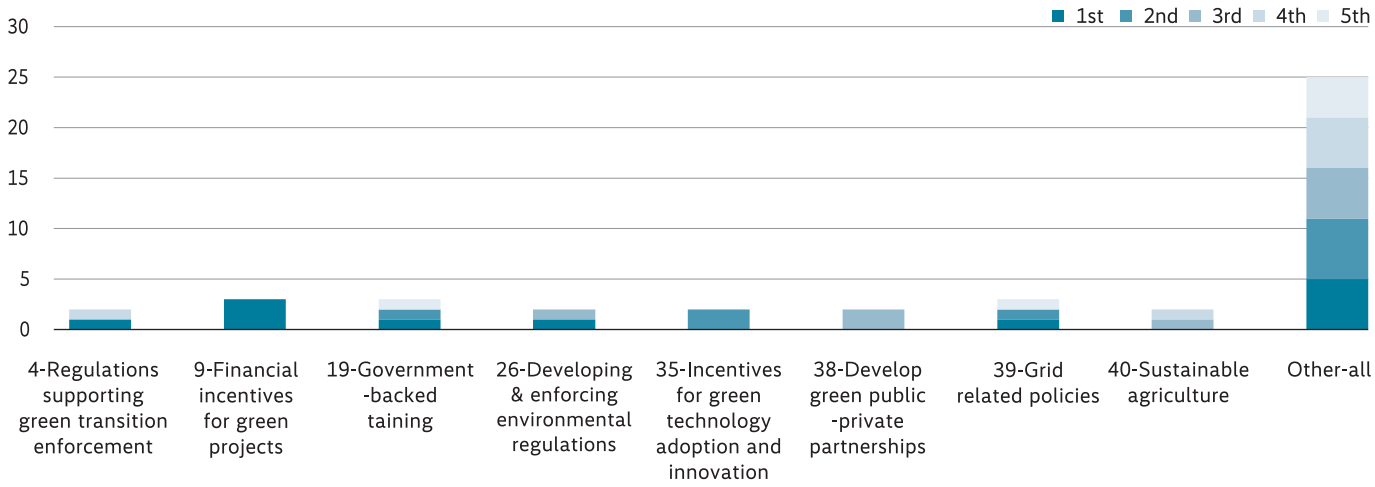
Recommended Policies by Labor Actors

Fig. 27



Recommended Policies by CSO Actors

Fig. 28



Finally, the recommendations of CSO actors are: financial incentives for green projects, government-backed training, grid-related policies (3 votes each), regulation supporting green transition enforcement, developing and enforcing environmental regulations, incentives for green technology adoption and innovation, develop green public-private partnerships, and sustainable agriculture (2 votes each).

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7.
Appendixes

The Categorization of Survey Participants

Appendix A1

	State		Businesspeople				Labor				CSOs		
	Executive/Admin/Research	Public Sector Enterprise	Business Association	Large Private Enterprise	SME	Business Startup	GFJTU	Sector part of GFJTU	Independent Labor Union	Other	Network of CSOs	Formal CSO	Informal CSO
EDCO	1	1	0	0	0	0	0	0	0	0	0	0	0
IDECO	1	1	0	0	0	0	0	0	0	0	0	0	0
National Electric Power Company	1	1	0	0	0	0	0	0	0	0	0	0	0
National Agricultural Research Center (NARC)	1	0	0	0	0	0	0	0	0	0	0	0	0
Jordan Renewable Energy and Energy Efficiency Fund	1	0	0	0	0	0	0	0	0	0	0	0	0
JUMCO	1	0	0	0	0	0	0	0	0	0	0	0	0
Jordan Enterprise Development Corporation (JEDCO)	1	0	0	0	0	0	0	0	0	0	0	0	0
Energy and Minerals Regulatory Commission	1	0	0	0	0	0	0	0	0	0	0	0	0
Jordan Standards and Metrology Organization (JSMO)	1	0	0	0	0	0	0	0	0	0	0	0	0
Ministry of Energy and Mineral Resources	1	0	0	0	0	0	0	0	0	0	0	0	0
Ministry of Environment	1	0	0	0	0	0	0	0	0	0	0	0	0
Ministry of Transport	1	0	0	0	0	0	0	0	0	0	0	0	0
Greater Amman Municipality	1	0	0	0	0	0	0	0	0	0	0	0	0
Royal Scientific Society- Climate Change Center	1	0	0	0	0	0	0	0	0	0	0	0	0
Amman Chamber of Industry	0	0	1	0	0	0	0	0	0	0	0	0	0
Jordan Green Building Council	0	0	1	0	0	0	0	0	0	0	0	0	0
Association of Banks in Jordan (ABJ)	0	0	1	0	0	0	0	0	0	0	0	0	0
Jordan Chamber of Industry	0	0	1	0	0	0	0	0	0	0	0	0	0
EDAMA Association	0	0	1	0	0	0	0	0	0	0	0	0	0
Kawar Energy	0	0	0	1	0	0	0	0	0	0	0	0	0
Philadelphia Solar	0	0	0	1	0	0	0	0	0	0	0	0	0
Manaseer industrial complex	0	0	0	1	0	0	0	0	0	0	0	0	0
Mass Jordan Renewable Energy	0	0	0	1	0	0	0	0	0	0	0	0	0
VESTAS	0	0	0	1	0	0	0	0	0	0	0	0	0
Jordan Modern Oil & Fuel Services Co. Ltd	0	0	0	1	0	0	0	0	0	0	0	0	0
TUV AUSTRIA GROUP	0	0	0	1	0	0	0	0	0	0	0	0	0

	State		Businesspeople				Labor				CSOs		
	Executive/Admin/Research	Public Sector Enterprise	Business Association	Large Private Enterprise	SME	Business Startup	GFJTU	Sector part of GFJTU	Independent Labor Union	Other	Network of CSOs	Formal CSO	Informal CSO
Perfect Solutions Engineering Company	0	0	0	0	1	0	0	0	0	0	0	0	0
Kawar Energy PSC	0	0	0	0	1	0	1	0	0	0	0	0	0
Kawar Energy	0	0	0	0	1	0	1	0	0	0	0	0	0
Blue Stars for Green Energy	0	0	0	0	1	0	0	0	0	0	0	0	0
United cable Industries Co. (UCIC)	0	0	0	0	1	0	0	0	0	0	0	0	0
Electrical Industries Company ELICO	0	0	0	0	1	0	0	0	0	1	0	0	0
ALMALIK GROUP	0	0	0	0	1	0	0	0	0	0	0	0	0
Technical Fiber Optics Lines	0	0	0	0	1	0	0	0	0	0	0	0	0
IDHAL Est. for solar energy solutions	0	0	0	0	1	0	0	0	0	0	0	0	0
ASTRACO	0	0	0	0	1	0	0	0	0	0	0	0	0
National Energy Solutions Co	0	0	0	0	1	0	0	0	0	0	0	0	0
International Ferti Technology Corp	0	0	0	0	1	0	0	0	0	0	0	0	0
Energy International Jordan	0	0	0	0	1	0	0	0	0	0	0	0	0
GreenTech Co.	0	0	0	0	1	0	0	0	0	0	0	0	0
Eco Engineering and Energy Solutions, ECOSOL	0	0	0	0	1	0	0	0	0	0	0	0	0
Magic Energy of Engineering and Electrical System	0	0	0	0	0	1	0	0	0	0	0	0	0
Tafkeek	0	0	0	0	0	1	0	0	0	0	0	0	0
Jordan Engineers Association	0	0	0	0	0	0	0	0	1	0	0	0	0
Jordanian construction contractors association	0	0	0	0	0	0	0	0	0	1	0	0	0
Renewable Energy & Energy Efficiency Establishments Society (REES)	0	0	0	0	0	0	0	0	0	0	0	1	0
RONAS for Training and Education (Careers of Gold).	0	0	0	0	0	0	0	0	0	0	0	1	0
Association of renewable energy investment and environment	0	0	0	0	0	0	0	0	0	0	0	1	0
Royal Scientific Society- National Energy Research Centre	0	0	0	0	0	0	0	0	0	0	0	1	0
German Energy Academy	0	0	0	0	0	0	0	0	0	0	0	1	0
Future Foresight Association for Environmental Rights and Climate Justice	0	0	0	0	0	0	0	0	0	0	0	1	0
Jordanian Climate Change and Environment	0	0	0	0	0	0	0	0	0	0	0	1	0
Jordan Environment Society	0	0	0	0	0	0	0	0	0	0	0	1	0
Green Generation foundation	0	0	0	0	0	0	0	0	0	0	0	1	0
Sustainable community and development Association SCADA	0	0	0	0	0	0	0	0	0	0	0	1	0
E_case Society	0	0	0	0	0	0	0	0	0	0	0	1	0
Jordan BirdWatch	0	0	0	0	0	0	0	0	0	0	0	1	0
Zarqa Society for Environment & Sustainable Development	0	0	0	0	0	0	0	0	0	0	0	1	0
The Royal Society for the Conservation of Nature	0	0	0	0	0	0	0	0	0	0	0	1	0
REES AEE Amman Chapter (Jordan Energy Chapter)	0	0	0	0	0	0	0	0	0	0	0	1	0

Interest Categories

	Actors' Interests in the Green Transition	Threats posed by the Green Transition to actors	Enacted Policies & interests in Green Transition	Enacted Policies & Threats from the Green Transition	Suggested Policies
1	Carbon Emissions/ Environmental Objectives/Climate change risk mitigation	Coordination	Renewable energy and energy efficieny law (Law No. 13 of 2012) and related regulations	Change in policies, regulations, and perspectives	Climate change adaptation and protection updated and enhanced Policies
2	Electricity/Energy Costs	Demand behaviour, high reliance on fossil fuels	Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) and other funding schemes	Budget cuts	Circular economy and waste management policies.
3	Electricity/Energy losses and efficiency	Resistance to change	Central bank of Jordan green finance strategy and Green Finance Strategy 2023 -2028	Increased environmental regulations and compliance costs and requirements	Policy Alignment with Nationally Determined Contributions (NDCs) and other global green standards
4	Sustainable energy sources/natural resources use	Insufficient or unmatching technical expertise and skills	MEMR Policies/Strategy	Renewable energy increasing tariffs, according to Electricity Law No. 64 of 2002	Legislation and regulations supporting green transition enforcement and/or reassessment
5	Decarbonization/ Green Manufacturing and Cleaner Production Techniques, Smart Grids and Technologies	electrical Power System & infrastructural related issues	National Environmental Strategy and Action Plan, environmental and social policies	The lengthy governmental procedures and bureaucratic obstacles	Renewable energy and green hydrogen targets, policies, and regulations
6	New Business Opportunities (e.g.: EV charging facilities)/ models/supporting local firms/production	Quality and continuity of supply, supply chain disruptions	Increasing Locally produced energy share	Taxing and customs policies (e.g.: on Electric Vehicles)	Easier approval for green projects
7	Renewable energy and green hydrogen development and use in the industrial sector	Profit margin and economic viability	Energy diversification	Unavailability of EV charger stations, complicated requirements, and insufficient promotion of EVs	Tax exemption and related laws
8	Local energy resources/Energy Security/ Diversification	High costs	National Energy Strategies, Jordan Energy Strategy 2020-2030	Renewable energy and/or efficiency policies and laws	Research and development of local green technologies, incentives, grants and public private partnerships for R&D
9	Sustainable agriculture	Unmature/unreliable, availability/importation of technology	Stability of legislative environment	Data accessibility	Green finance strategy 2023 -2028, financial incentives for renewable energy adoption, providing suitable funds for green projects, and sustainable finance
10	Sustainable Development and economic growth	Financial/funding/investment-related constraints	Tax and subsidies incentives on Renewable Energy	Inconsistent or Fragmented Policy Implementation	Reducing the cost of energy
11	Green Jobs	Domestic and regional political and economic challenges	Green growth National Strategy 2021 - 2025, (NGGP) Natural Green Growth Plan, and Green Growth National Action Plan (GG-NAP) for green growth sectors	Insufficient Investment in Research and Innovation	Increasing the contribution of local energy sources to the total energy mix.

	Actors' Interests in the Green Transition	Threats posed by the Green Transition to actors	Enacted Policies & interests in Green Transition	Enacted Policies & Threats from the Green Transition	Suggested Policies
12	Enhancing reputation and social responsibility	Legislative/regulatory and policy insufficiency/ uncertainties/lack of enforcement/ bureaucratic capacity & challenges	Economic Modernization Vision	Insufficient Support for Technology Transfer	Increase energy efficiency in all sectors, increase investments at energy efficiency, and attracting more financial support from donors
13	Sustainable Transportation	Awareness	National Climate Change Policy 2022-2025, Amman Climate Plan 2050, 2050 Long-term Low-carbon and climate resilience strategy, Climate change policies, adaptation plans, and NDCs	Limited grid capacity for solar integration	Jordan securities commission sustainability report
14	Waste management and circular economy	Insufficient quantitative & qualitative data (database and benchmark)	Renewable energy guidelines	Customs and trade restrictions on related items.	Carbon pricing, Carbon Tax, and Emissions Trading System (ETS)
15	Green urban planning and housing	Slow change in adopting new green technologies	Waste Management Framework Law (Law No. 16 of 2020) and waste management and circular economy policies	Carbon tax policy	Hybrid systems regulations
16	Green finance for sustainability and green projects	Governmental incentives and facilitation or regulatory compliance requirements and costs, licensing	Biodiveristy policies	Low trainings and workshops regarding environmental issues	Emission reduction targets
17	Water management & efficiency	Job loss or structural change training facilities	Strategic Plan for Transport sector 2024-2028, Sustainable Transport Strategy	Insufficient incentives for green buildings	Adopting scientific research recommendations
18	Align with International Initiatives and Standards	Water scarcity	Greater Amman Municipality Law (18) of 2021	Environmental low inspection and/or weak enforcement of the Environmental Protection Law No. 6 of 2017	Following national strategies rather than strictly following donors' agendas
19	Regional and international investment and exporting opportunities	Neglecting ecosystem protection and nature conservation	Supporting climate research	Lack of incentives for green technology adoption (e.g.: Investment Law No. 18 of 2021)	Government-backed training and capacity-building programs
20	EVs		Sustainabile development support	Energy prices and related subsidies	Guaranteed purchase agreements for renewable energy
21	Building capacities and training for vocational workers in green industries and technologies		Green Innovation and green technology adoption incentives	More governmental support for the NGO (e.g.: to obtain international sponsoring)	Directives for storage activities and Issue Expression of Interest projects for solar PV energy storage
22	Digital solutions and transformation (e.g.: for environmental monitoring)		Digital Transformation Policies	Lack and deprioritization of environmental safeguards (relative to economic objectives)	Capacity Building and Awareness
23	Conserving biodiversity		Sectoral strategies (water, energy, waste)	Inadequate Water Resources Management	Incentives for Green Compliance
24	Public Awareness & Education on Sustainability		Green hydrogen new strategies, laws, and studies		Green growth action plan

	Actors' Interests in the Green Transition	Threats posed by the Green Transition to actors	Enacted Policies & interests in Green Transition	Enacted Policies & Threats from the Green Transition	Suggested Policies
25			*National Water Strategy (2016-2025) and Water Efficiency and Conservation Policy*		*Energy Efficiency Regulations (e.g.: heat pump tax exemption, Instruction to law 73 for high TOE consumers to have EE mandatory)*
26			*Green Finance and Green Bond Framework.*		*Amending the Environmental Protection Fund guidelines and develop and enforce environmental regulations to provide necessary support for green initiatives*
27			*Electric Vehicle (EV) Incentives and Policies*		*Consolidating efforts under the concept of a green hub*
28			*Carbon Pricing and Emission Reduction Policies*		*implement green growth concepts at the national level across all sectors*
29			Public Procurement Policies Favoring Green Products and Services		E-mobility Strategy
30			Building Codes for Energy-Efficient Construction		Investment plan and encourage green investment
31			Support for Public-Private Partnerships (PPPs) in Green Projects		Support for Cross-Sector and stakeholders' Collaboration
32			More governmental support for the NGO (e.g.: to obtain international sponsoring)		Sector-Specific Action Plans
33			Permission for energy storage and for zero feed in system with storage		Long-Term Green Strategies
34					Infrastructure and financial incentives for Green Infrastructure Development.
35					Subsidies and incentives for green technology adoption and innovation.
36					Green buildings incentives, mandatory green buildings rating systems, and regulations (e.g.: thermal insulation exemption for retrofits and new construction)
37					Green public procurement and related policies
38					Develop Public-Private Partnerships in green activities
39					Grid related policies, smart grids, grid upgrading, and related fee adjustments
40					Sustainable agriculture

Survey on The Green Transition in Jordan

I. Background Information

A. What is the name of your Organization? .....
B. When was your Organization established? .....
C. What type of organization? .....

Government/Public Sector

☐	*Government*	☐	*Public Sector Enterprise*	☐	*Parliament*	☐	*Other*

Business

☐	*Business Association*	☐	*Large Private Enterprise*	☐	*Small & Medium Enterprise (SME)*
☐	*Business Startup*	☐	*Other*		

Labor

☐	*GFJTU*	☐	*Individual sector's Labor Union*	☐	*Independent Labor Union*	☐	*Other*

Civil Society Organizations (CSOs)

☐	*Network of CSOs*	☐	*Formal CSO*	☐	*Informal CSO*

D. *Operating in which governorate:*

☐	*Irbid*	☐	*Ajloun*	☐	*Jerash*	☐	*Mafraq*	☐	*Balqa*	☐	*Amman*
☐	*Zarqa*	☐	*Madaba*	☐	*Karak*	☐	*Tafilah*	☐	*Ma'an*	☐	*Aqaba*

II. *Interest in (Threats of) the Green Transition*

A. *How do you regard the green transition in Jordan?*

☐	*A very big opportunity*	☐	*An Opportunity*	☐	*Neutral*	☐	*A threat*	☐	*A very big threat*

B. *Which interests do you see in the Green Transition in Jordan? (State 5 of your organization's interests in the transition and rank them according to the most important, 1 for the highest interest and 5 for the lowest interest)*

1	
2	
3	
4	
5	

C. *Which threats do you see in the Green Transition in Jordan? (State 5 of the threats posed by the transition to your organization and rank them according to the most important, 1 for the highest threat and 5 for the lowest threat)*

1	
2	
3	
4	
5	

D. *Which current enacted government policies increase your organization's interest in the Green Transition? (State a maximum of 5 policies and rank them according to importance, 1 for the highest and 5 for the lowest)*

1	
2	

3	
4	
5	

E. *How you generally assess the actual implementation of the policies that increase your organization's interest in the Green Transition? (The policies you have selected in the previous question)*

	High		Medium		Low		No Actual Implementation

F. *Which current government policies increase the threats to your organization from the Green Transition? (State a maximum of 5 policies and rank them according to importance, 1 for the highest and 5 for the lowest)*

1	
2	
3	
4	
5	

G. *How you generally assess the actual implementation of the policies that increase the threats for your organization from the Green Transition? (The policies you have selected in the previous question)*

	High		Medium		Low		No Actual Implementation

H. *Which government policies that you would suggest that you believe would increase the interest of your organization from the Green Transition? (State a maximum of 5 policies and rank them according to importance, 1 for the highest and 5 for the lowest)*

1	
2	
3	
4	
5	

III. *Interest Representation*

1. *Which organizations are representing your interests? (Please rank organizations according to importance, 1 for the highest and 3 for the lowest)*

1	
2	
3	

2. *How much are you capable of defending your interests within this (these) representative organization(s) vis a vis oth-*

er members of the same organization(s)?

☐	*High*	☐	*Medium*	☐	*Low*	☐	*Not at all*

3. *What is your level of satisfaction from how this (these) organization(s) represent your interests (generally) vis a vis other external actors?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

4. *What is your level of satisfaction from how this (these) organization(s) represent your interests vis a vis government institutions?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

5. *What is your level of satisfaction from how this (these) organization(s) represent your interests vis a vis business associations?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

6. *What is your level of satisfaction from how this (these) organization(s) represent your interests vis a vis labor unions?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

7. *What is your level of satisfaction from how this (these) organization(s) represent your interests vis a vis civil society organizations/ non-governmental organizations?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

8. *What is your level of satisfaction from how this (these) organization(s) represent your interests vis a vis individual big business enterprises?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

9. *How do you assess the cohesion/fragmentation of interest representation of your group of actors? (For business enterprises refer to business associations, for labor refer to labor unions, for civil society organizations refer to the relevant associations representing civil society organizations)*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

IV. *Coordination*

A. *How do you assess the following aspects of your relationship with government agencies?*

Mutual Trust	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Common Understanding	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Past Experiences	☐	*Very Positive*	☐	*Positive*	☐	*Neutral*	☐	*Negative*	☐ *Very Negative*

B. *How do you assess the following aspects of your relationship with Business Associations?*

Mutual Trust	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Common Understanding	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Past Experiences	☐	*Very Positive*	☐	*Positive*	☐	*Neutral*	☐	*Negative*	☐ *Very Negative*

C. *How do you assess the following aspects of your relationship with Labor Unions?*

Mutual Trust	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*

Common Understanding	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Past Experiences	☐	*Very Positive*	☐	*Positive*	☐	*Neutral*	☐	*Negative*	☐ *Very Negative*

D. *How do you assess the following aspects of your relationship with Civil Society Organizations?*

Mutual Trust	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Common Understanding	☐	*High*	☐	*Medium*	☐	*Low*	☐	*Non-Existent*	
Past Experiences	☐	*Very Positive*	☐	*Positive*	☐	*Neutral*	☐	*Negative*	☐ *Very Negative*

E. *How do you assess your coordination on Green Transition issues with government entities?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

F. *How do you assess your coordination on Green Transition issues with Business Associations?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

G. *How do you assess your coordination on Green Transition issues with Labor Unions?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

H. *How do you assess your coordination on Green Transition issues with Civil Society Organizations?*

☐	*High*	☐	*Medium*	☐	*Low*	☐	*inexistent*

Please answer the following only if you are not a representative of a government entity:

I. *How often is your organization consulted by the government on issues related to the Green Transition?*

☐	*Very frequently*	☐	*Rarely*	☐	*Not at all*

J. *To what extent do your recommendations shape regulations and laws in the field of the Green Transition?*

☐	*Strongly*	☐	*A little*	☐	*No at all*

K. *Which government entities do you deal with while discussing Green Transition issues?*

☐	*Ministry of Energy (MEMR)*	☐	*Ministry of Industry*	☐	*Ministry of Environment*
☐	*Local Authorities*	☐	*Other*		

V. *Open Ended Questions*

Please feel free to write further notes related to your experience concerning the following:

A. *Would you elaborate more on the reasons for your interest in or the threats posed by the Green Transition?*

B. *Would you elaborate more on the level of interest representation that your organization gets vis a vis other similar organizations?*

C. *Would you elaborate more on the level of interest representation that your representative organization gets vis a vis other actors?*

D. *Could you elaborate more on the level of coordination between your representative organization and the organizations representing other actors?*

References

1 Foreign aid was about 9% of GDP in 2022 (Ministry of Planning and International Cooperation, 2022).

2 In 2018, 65% of generated renewable electricity came from PV solar, 32% from wind, 3% from hydropower, and 0.3% from biogas) (IRENA, 2021, pp. 33–36).

3 There might be some confusion about whether the three companies are state-owned or private companies. However, EDCO and IEDCO are both owned by the Kingdom Electricity Company (KEC), which on its turn is controlled by the state-owned Social Security Investment Fund (SSIF) (70%). The SSIF also owns about 21.5% of JEPCO (https://www.ssif.gov.jo/page.aspx?page_key=energy). At any case, the participants identified their companies as state-owned.

4 Inter-actors'coordination for actors within the same actor set (e.g.: large business enterprises and SMEs) is estimated by using the value of coordination reported by the actor with the whole actor set (e.g.: what large business enterprises reported in terms of their coordination with businesspeople actor set).

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Jordan's Green Transition Pathway: Actors, Extractivity/ Inclusivity, and Stability

The paper explores Jordan's green transition pathway and its prospective development. Jordan has always struggled with its energy resource deficiency. Unlike its oil-rich neighboring, the country relied on energy imports. Its extreme water poverty added yet another restraint on the country's economy and development. It is no wonder, then, that the green transition was met with much enthusiasm with various state initiatives. Nevertheless, the prospective development of major changes could only be assessed by looking closely at state-society relations, present and potential interests, the power of interest representation, and existing relations between different actors that enable or disable them from working together.
the paper investigates the pathway that Jordan takes in its green transition. The Jordanian case is investigated and especially in terms of who is going to benefit or lose from the selected pathway for the transition? And whether this pathway will be sustainable, at least in the medium run? While the former refers to the extractivity/inclusivity of the pathway, the latter assesses its stability/instability.

Further information on this topic can be found here:
↗ mena.fes.de

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