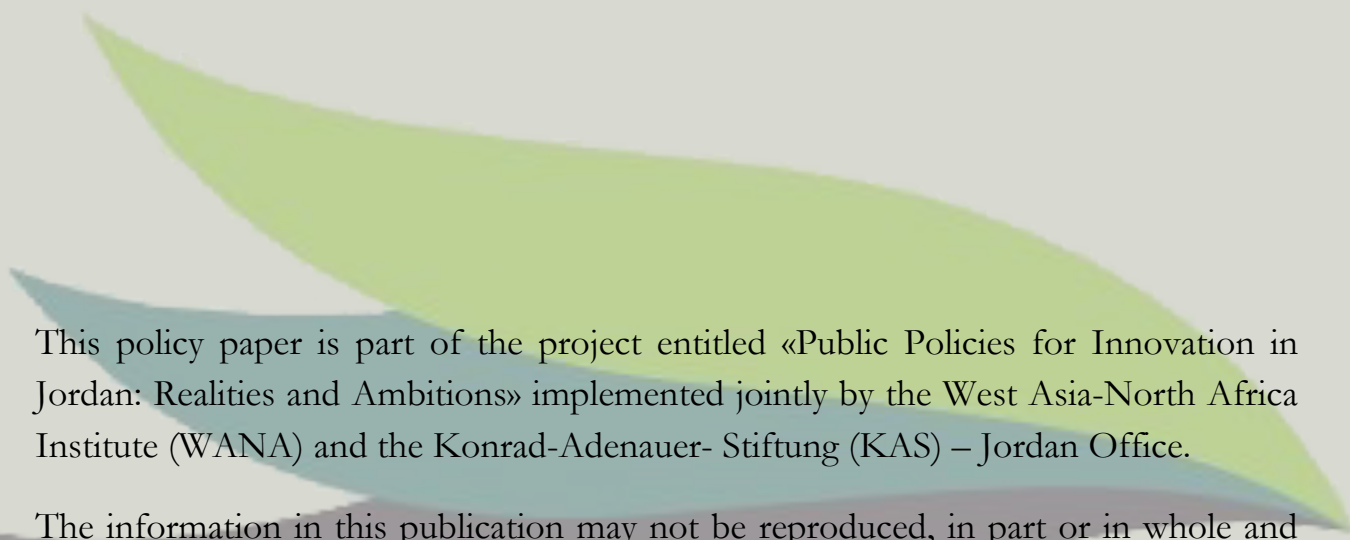


Applying a Geopolitical Perspective in Designing Innovation Policies: A Comparative Case Study Between Jordan and Lebanon





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1 Executive summary

This paper argues how a geopolitical perspective can shed light on the dynamics of policymaking and policy recommendations. Introducing a geopolitical point of view might help strengthen the design of innovation policies by considering the geopolitical factors involved in policy success. The geopolitical factors are elements that affect the design and, therefore, the analysis of innovation policies. This paper focuses on stakeholders, financing, and context. These factors reveal power dynamics and geostrategies such as competition and influences both on a national and an international scale that can shape policies. A case study on the implementation of Green Technology in SMEs in Jordan and Lebanon is presented to highlight how geopolitics is part of innovation policymaking and how it affects the outcomes. The analysis demonstrated how the influences of geopolitics on policies act on two countries of the same region. It revealed similarities and differences in the ways policies are created in the two countries. Despite relatively similar financing methods, Jordan and Lebanon have different stakeholders and contexts that affect the ways decisions are produced and implemented. Therefore, a geopolitical perspective needs to be considered when creating policies to strengthen and make them more effective by turning them into more precise and suitable versions adapted to specific situations.

2 Introduction

Since the 1970s, geopolitics has gained increased notice, especially when it comes to analysing international situations. However, the themes of the discipline have also broadened. Nowadays, a geopolitical approach can characterise numerous circumstances, such as cyberspace, gender studies or popular culture. Geopolitics is a human science that is part of the branch of human geography. It focuses on the geographical study of conflicts. Conflicts refer to rivalries between two or more actors. These can be understood as tensions, more or less violent, latent, direct or indirect, for multiple reasons such as possession of territory, resources, cultural or religious matters¹. At its core, geopolitics refers to antagonisms, competitions, struggles for influence and ratios of power in space that may also be underlying and respond to the strategies of local, national, regional, or international stakeholders.

Geopolitics and innovation are closely linked. A geopolitical perspective enables a deeper understanding of power dynamics that are at stake in policymaking. It aims at pointing out the geopolitical factors playing a role in a policy.

The question addressed in this policy paper is the following:

To what extent adopting a geopolitical perspective on innovation policies could yield a complementary approach to more precise and suitable policies for the situation it was designed for?

¹ Yves Lacoste, "Geography, Geopolitics, and Geographical Reasoning", *Hérodote*, No 146-147 (2012): 14-44

Other methods have been developed regarding policymaking to ensure the most efficient strategy, like place-based policy, which is a government's process to create solutions adapted to the local situation where they apply². Likewise, a geopolitical perspective on innovation could lead to the use of appropriate methods, effective tools and strategic decisions and guarantee efficient as well as suitable innovation policies.

The word innovation generally invokes the idea of "new." For example, according to the English Oxford Dictionary, innovation is the "introduction of new things, ideas or ways of doing something." It can also be understood as finding "new solutions to existing problems"³. It is also customary to think of innovation as the technologies, sciences and techniques resulting from research that create original products and allow for economic growth. But innovation comes from mobilising resources to introduce something new into a particular context, something that was not done before. Therefore, new social practices, original sustainable and environmental-friendly techniques, as well as the introduction of new economic regulations are examples of innovations in society.

The policy paper aims to enlighten policymakers on different factors to take into consideration when creating new plans. The paper relies on secondary data and in-depth desk research. Nevertheless, some information is difficult to find. There are few precise resources, which shows that environmental policies are not explicit and easily accessible. First, an analysis of the barriers and limits to regular policymaking is conducted to demonstrate that other approaches, such as a geopolitical one, could be complementary. The second part introduces three geopolitical factors that can reveal underlying power dynamics. In the last part, the method is applied to a comparative case study between Jordan and Lebanon on green technology in small and medium sized enterprises.

3 Limitations to efficient conceptions of innovation policies: the value of introducing a geopolitical perspective

Public policies on innovation sometimes show limited results or even failure in implementation and in their construction. Those limited results include low efficiency, low quality, unsuitable solutions, lacks and limitations that may hinder progress. Many factors hamper innovation policies⁴, such as overly optimistic expectations, segmented governance, political cycle and inadequate collaborative policymaking. It is said that these problems are increased by factors like the complexity of the policies or the lack of analysis ahead of time of stakeholders (that might have a difficult time working together or not share the same point of view), cost (risk of being too high), timescale and context (local governance). This leads to dubious policies that are more likely to fail

² Andrew Beer, Fiona McKenzie, Jiří Blažek, Markku Sotarauta, Sarah Ayres, "What is Place-Based Policy?", *Regional Studies Policy Impact Books* (2020), 11-22

³ World Bank, *Innovation Policy: A Guide for Developing Countries*, 2010. <https://openknowledge.worldbank.org/handle/10986/2460>

⁴ Bob Hudson, David Hunter, Stephen Peckham, "Policy failure and the policy-implementation gap: can policy support programs help?", *Policy Design and Practice* (2019), 1-14

because these aspects were not studied in advance. Similarly, the paper argues that geopolitical factors are part of effective innovation policy design, and their lack of consideration could lead to limited results. Factors such as stakeholders, context, and financing can be integral to an effective innovation policy.

Let us take the example of the public transportation policy in Jordan. Despite the creation of numerous regulations, a variety of factors seem to be hindering progress: lack of finances, segmented governance, institutional problems and redundant routes⁵. Policymakers could have benefited from the study of the geopolitical and geographical context (conflicts between stakeholders and segmented governance, geographical specificities of Jordan) as they influence the needs and the means of implementation and the choice of strategic allies to finance and influence participation of the private sector (expertise, technology transfer, such as copying Rome's system as the city also has numerous hills like Amman), to help reach an operative system.

4 Looking at geopolitics in policy making on innovation: a way to understand strategies and power dynamics

Geopolitics is a means to a deeper understanding of stakeholders' strategies and power dynamics in policies on innovation. According to Joseph Nye (1990), the notion of "soft power"⁶ refers to the ability of a State to influence and direct international relations to its advantage by using non-coercive means (such as diplomacy, economy, culture, and education). The soft power of a country is a concept linked with geopolitics, as it often involves a geographical dimension and an abstract conflict, aiming for domination in different States. Innovation policies are a soft power to a country, as it enables its control and authority among other actors.

Many geopolitical factors exist: these are elements that come into play in the constitution of a situation of a geopolitical nature. Those allow to carry out a geopolitical analysis⁷ and put emphasis on power dynamics and geostrategies behind a situation. From the analysis of examples of innovation policy papers⁸, the most relevant elements include stakeholders, financing and context because they have consequences on the policies shaped.

- 1) Stakeholders: reviewing who is part of the policy-making process⁹;
- 2) Financing: analysing where the funding come from¹⁰;

⁵ Center for the Study of the Built Environment (CSBE), Friedrich Ebert Foundation, *Public Transportation in Jordan: A Policy Study Report* (2017)

⁶ Joseph Nye, *Bound to lead, the changing nature of American Power* (1990), Basic Books

⁷ "Quelle méthode en géopolitique?" ["What methodology in geopolitics?"], Conseil Québécois d'Etudes Géopolitiques, accessed July 15th 2022, <https://cqegehiulaval.com/quelle-methode-en-geopolitique/>

⁸ Filippo Gualtiero Blancato, United Nations University Institute on Comparative Regional Integration Studies, "Regulate to Dominate: The Geopolitics of Standard-Setting in Digital Technologies and its Strategic Implications for the EU" (2019)

⁹ Cédric Tellenne, *Introduction à la géopolitique* [An Introduction to Geopolitics] (2019), La découverte, 218 p

¹⁰ Pascal Lorot, "De la géopolitique à la géoéconomie" ["From geopolitics to geo-economics"], *Géoéconomie* (2009), vol. 50, no. 3, pp. 9-19

3) Context: studying the geographical, political and economic background.

These elements reveal significant soft power aspects in innovation policies, in particular, power dynamics and geostrategies such as competition and influence. Power dynamics refer to the ability of a stakeholder to impose its opinions and choices on others due to its various capacities: demographic, territorial, resource, economic, cultural or military. Geostrategy is a broad term signifying actions and decisions made by stakeholders to meet their goals. It is a tactical choice of action or involvement in another country for multiple reasons, whether they are, for instance, economic, political, cultural or diplomatic. An example of a strategy would be for a country to increase its presence in a specific country through its foreign policy. Some power dynamics and geostrategies regarding innovation policies are competition and influences.

- **Competition** is the development and the place of a country in the regional and international environment. Competition for innovation and policies signals the struggle to occupy a leading place among other countries. Thus, innovation is linked to power in light of competition as countries strive to promote themselves as leaders in the innovation field, promoting their national and international image. The stakeholders compete in promoting their know-how and expertise in various fields, reinforcing their prestige and attractiveness. A competitive environment is beneficial as it encourages countries to adopt changes and implement new policies to enable progress and development. For instance, India has developed a new policy regarding education titled "National Education Policy" (2020). With these changes in the Indian education system, the country seeks progress in the accessibility and quality of the knowledge provided in schools and universities. It aims to reach a world competing level, promoting progress internally and securing a leading position among other countries.
- **Influences**: meaning the circulation and the inspiration of innovation policies from other countries. Countries take inspiration from other parts of the world to create innovations. The inspiration can come from the models, tools, policies, practices, or any aspect of a country's experience in building, promoting or sustaining innovation. Influences highlight the power of certain countries to inspire policies and plans and impose norms and transfer techniques, technologies and policies. Influences are a complementary dimension to competition, but the focus is on the models' policies and circulations rather than the competitive environment.

Innovation policies thus benefit from applying a geopolitical perspective to determine how power dynamics and geostrategies take place and affect the outcome of the policy. Applying this analysis grid (figure 1) would inform the drafting of new policies and paint a clear picture of the decision-making landscape and the contextual specificities of a region. The case study of green technology in Small and Medium-sized Enterprises serves as an application to how considering geopolitics in public policies on innovation is important.

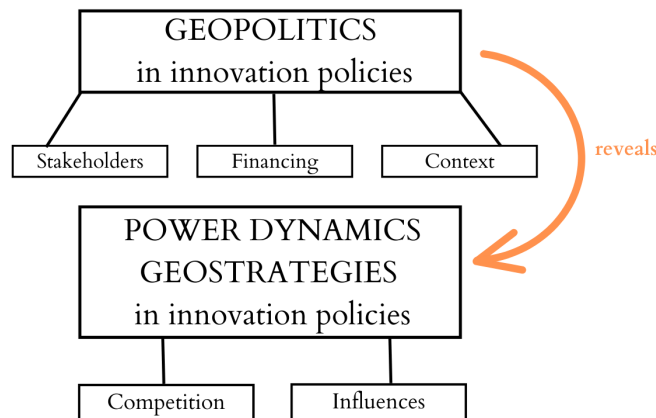


Figure 1 : Diagram presenting the links between geopolitics and innovation policies (creation: Amélie André).

5 The case of green technology in Small and Medium-sized Enterprises

Jordan and Lebanon have created diverse strategies, as well as plans and policies to develop the use of green technology in Small and Medium-sized Enterprises (SMEs). The study of the comparison between the two countries serves as an application highlighting the role of geopolitics in innovation policies and emphasises the influences of geopolitics on innovation policies. Policies are defined as “a set of ideas or a plan of what to do in particular situations that has been agreed to officially by a group of people, a business organisation, a government, or a political party”¹¹; therefore, strategies and plans often precede the implementation of an idea into a policy and are therefore linked.

Green technologies refer to tools and methods developed to achieve sustainable development and preserve the environment. They aim at preventing pollution, negative impacts on nature¹², and waste of resources and energy by improving green capacities as well as green efficiency¹³. These technologies can be used in agriculture, business and urban planning. Examples of green technologies include solar panels, water or wind energy, composting and electric vehicles.

This section focuses on how environmental policies and programmes support the implementation of green technologies in Small and Medium-Sized Enterprises (SMEs). The definition of Small and Medium-Sized Enterprises is the number of employees, between 1 and 99 employees in both countries¹⁴. The size of SMEs enables a straightforward undertaking of the principles of a green economy. Also, SMEs represent a significant part of the economy of Jordan and Lebanon. Both

¹¹ "Policy", Cambridge Dictionary, accessed July 22nd 2022, <https://dictionary.cambridge.org/fr/dictionnaire/anglais/policy>

¹² Noor Azlan Jainudin, Ivy Jugah, Awang Nasrizal Awang Ali, Rudy Tawie, *The Acceptance of Green Technology: A Case Study in Sabah Development Corridor* (AIP Conference Proceedings, 2017)

¹³ Chairat Treesubsuntorn, Rujira Dolphen, Prapai Dhurakit, et al., *Green technology innovation in a developing country*, (AIP Conference Proceedings, 2017)

¹⁴ United States Agency for International Development, *Booklet of standardized Small and Medium Enterprises Definition* (2007)

countries have employed different means and made various choices to implement green technology in SMEs, reflecting divergent geopolitical elements at stake and resulting in different outcomes. Geopolitics affects how policies are created, promoted, diffused, and implemented.

5.1 Jordan

Jordan is one of the first countries in the region to have taken action regarding climate change and environmental issues by implementing early strategies and policies starting in the 1990s¹⁵. According to the Economic and Social Council of Jordan report of 2022 on Micro, Small and Medium-Sized Enterprises, the enterprises represent up to 99.5 % of Jordan's private sector and employ 57.6 % of the total labour force¹⁶. Therefore, this sector is strategic, and although there is no specific policy regarding green technology in SMEs, national environmental plans address the need for this sector to implement green technologies for a sustainable green economy.

Some policies and regulations mention green technology in SMEs. The stable institutional system enables Jordan to develop numerous policies, plans, and goals on a national scale to answer the current challenges regarding environment preservation, climate change, and sustainable development. The broader one is the "Jordan National Vision and Strategy for 2025" (2015), giving general orientations and goals for the country. Several strategies have been developed to achieve this vision, including "A National Green Growth Plan for Jordan" (2017). It states that SMEs are a part of the Green Strategy for Jordan and should benefit from financial help to achieve sustainable development. Moreover, multiple laws support the transition to a green economy and encourage the use of green technology to save resources, diversify energies, as well as fight against waste and pollution. Jordan is also part of multiple ratified multilateral international agreements that corroborate its stance on environment preservation influenced by international actors.

At the heart of our study is the way of creating these policies. In the Kingdom, the main **stakeholder** is the government which guides and rules the strategies regarding climate challenges and sustainable development, including green technology in SMEs. The primary actor is the Ministry of Environment. Depending on the subject, it often collaborates with other governmental entities and ministries. Some international and external actors are also involved in the decision-making and the policy process, namely, the United Nations (UN) and the European Union (EU), and some countries in the case of bilateral or multilateral relations. Jordan has also been characterised by "political openness"¹⁷. This resulted in the growth of Civil Society Organisations (CSOs) in the country. Nevertheless, scholars report that the engagement of Civil Society in policymaking remains weak compared to the strong presence of the government¹⁸.

¹⁵ United Nations, Hashemite Kingdom of Jordan, *Jordan's way to sustainable development. First National voluntary review on the implementation of the 2030 Agenda* (2017)

¹⁶ Jordan Economic and Social Council, *Micro, Small, and Medium-Sized Enterprises Initiative Report*, (2022), <http://www.esc.jo/Documents/a4a0998e-990e-4580-a79c-dbe738e4494c.pdf>

¹⁷ Civil Society Index, Analytical Country Report: Jordan 2010, *The Contemporary Jordanian Civil Society. Characteristics, Challenges and Tasks* (2011)

¹⁸ Hana Addam El-Ghali, Noor Baalbaki, *Perspectives on policy-making: insights into the role of the parliament in Lebanon* (Issam Fares Institute for Public Policy and International Affairs, American University of Beirut, 2017)

For instance, the German Federal Ministry for the Environment (BMUB) and the Global Green Growth Institute (GGGI, Seoul) actively provided environmental and sustainable development guidelines for the "National Green Growth Plan for Jordan". Germany and South Korea are both developed countries holding expertise in environmental policies, and their participation signals their **influence** and **leadership**. Germany is a pioneer country regarding ecology and has been encouraging the use of green technology in SMEs for multiple years, especially green energies, as policies reveal¹⁹. One can find strong similarities in the national plan for Jordan, which underlines a circulation of methods and an expertise transfer between the countries. Germany has, therefore, a strong, soft power as it influences developing countries in their policies.

The **funding** of the policies helps the understanding of their creation and their operation. There are national and governmental funds, including the Jordanian national financing for environmental activities and initiatives, are part of the Ministries' budget. External funding is also essential in the policy sector in Jordan. For example, international funds from the United Nations or the European Union, as well as bank loans and donors, help develop the regulations. The United States is also an actor present in the funding of environmental policies in Jordan. For instance, the Jordan Loan Fund Guarantee is a way of financing the use of green technology in SMEs²⁰. This financial relation reveals a **preferred link** between countries, which have been collaborating on multiple topics over the years.

Jordan is moving towards sustainable opportunities to attract more private financing and Foreign Direct Investment to "bridge the gap between the 'Kingdom's green growth objectives, and the availability of existing finance" as well as create more long-lasting investments²¹. Therefore, in a **competition** matter, the country is willing to develop long-term solutions to be more powerful, have a stronger economy and reinforce its place in the region and the world, especially by investing in innovative tools and policies.

Despite the general strategies and policy plans, the actions regarding the environment stay fragmented. This is partly due to the lack of guiding principles that enable Jordan to set strategic priorities²². In addition, Jordan still lacks sufficient finances to develop projects ensuring a transition towards a green economy. Public policies on green technology in SMEs are also marginal. Therefore, Jordan has a singular **context** regarding policymaking, which includes a strong presence of the government. Therefore, the analysis of public policies on green technologies in SMEs can be conducted by studying the geopolitical elements (stakeholders, funding and context) that are unique to Jordan. This analysis reveals the existence of strategies and power relationships (competition, influence) that impact the policies created and emphasises their lack and insufficiencies.

¹⁹ Sebastian Rahbauer, Luisa Menapace, Klaus Menrad, Thomas Decker, "Adoption of green electricity by small- and medium-sized enterprises in Germany", *Renewable and Sustainable Energy Reviews* (2016), 59, 1185-1194

²⁰ Ministry of Environment, Amman, Hashemite Kingdom of Jordan, *A National Green Growth Plan for Jordan* (2017)

²¹ *Ibid*

²² Emilie Combaz, *Jordan's environmental policies and engagement on climate change*, K4D Helpdesk Report (2019), Brighton, UK: Institute of Development Studies.

5.2 Lebanon

SMEs in Lebanon represent a considerable part of the country's businesses. In 2016, there were around 225 000 micro, small and medium-sized enterprises (MSMEs). Considering this vital sector, under the United Nations Development Programme (UNDP) supervision, the Ministry of Economy developed and adopted an SME strategy in 2014, titled "Lebanon SME Strategy, Road to 2020." This official document calls to "expand the support and assistance provided for SMEs (...) to achieve a green economy and sustainable development."²³

Despite this mention, the policy does not expand further on the topic. Green technologies are absent from any environmental policy. Only the Ministry of Economy and Trade Website²⁴ elucidates some ways for SMEs to reach more sustainable development, primarily through green technologies. It is the most official mention of green technology in Lebanon. Moreover, official regulations – even though they are rare regarding the environment, a few official documents exist – provide general orientations but do not specify actions. For example, the National Renewable Energy Action Plan (2016-2020) targeted to reach 12% of renewable energy contribution by 2020, without specifying means to achieve this goal. Lebanon is also part of multiple ratified multilateral international agreements.

The country's internal and external **context** influences the creation and diffusion of environmental policies. External actors' presence might affect the efficiency of policies' implementation and can even impact the nature of policies decided by the government. Indeed, whereas Jordan is implementing policies mainly through the governmental system, Lebanon receives help from numerous CSOs that play a more important role than in Jordan²⁵. The country faces several unique challenges, the most prominent being political instability, divisions and groups' partition hindering decision-making in the country. Corruption in the government and weak and unstable political systems prevent the country from developing efficient innovations and hinder the adoption of sustainable decisions. Moreover, inadequate infrastructure and economic environment do not enable a favourable environment for implementing policies²⁶.

The Ministry of Environment issues environmental laws, regulations and policies on a national scale and collaborates with other ministries but these collaborations are marked as "difficult"²⁷. As a result, CSOs are involved at different stages of policymaking and guide the decisions and process²⁸. Even though there is a noticeable effort to develop the national institutions, international stakeholders play a huge role in implementing the required changes²⁹. Therefore, the multiple

²³ Ministry of Economy and Trade, "Lebanon SME strategy, a roadmap to 2020" (2014)

²⁴ "Going green for SMEs", Ministry of Economy and Trade, accessed March 16th 2022, <https://www.economy.gov.lb/en/services/support-to-smes/going-green-for-smes>

²⁵ Hana Addam El-Ghali, Noor Baalbaki, *Perspectives on policy-making: insights into the role of the parliament in Lebanon* (Issam Fares Institute for Public Policy and International Affairs, American University of Beirut, 2017)

²⁶ Economic and Social Commission for Western Asia, *Green Help Hesk: further green technologies in the Arab region, Green Help Desks in six Arab countries supporting technology transfer*, 2017.

²⁷ Mission Permanente du Liban, *Atmosphere pollution and human rights* (2018)

²⁸ Hana Addam El-Ghali, Noor Baalbaki, *Perspectives on policy-making: insights into the role of the parliament in Lebanon* (Issam Fares Institute for Public Policy and International Affairs, American University of Beirut, 2017)

²⁹ World Bank, Sustainable Development Department (MNSSD), *Republic of Lebanon Country Environmental Analysis, Middle East and North Africa Region* (2011)

stakeholders influence the policymaking and the content of the decisions. For instance, the National Energy Efficiency and Renewable Energy Action (NEEREA, 2014) is "a national financing mechanism initiated by the Central Bank of Lebanon (BDL) in collaboration with the Ministry of Energy and Water (MEW), the Ministry of Finance (MoF), UNDP, the European Union (EU), and the Lebanese Centre for Energy Conservation (LCEC)"³⁰ to **fund** the transition towards the use of green energy through loans.

One finds similar types of **financing** regarding the environmental policies as in Jordan: national and governmental funds, international funds, such as funding from NGOs or banks for development, and private funds (loans, investments, banks, aids, and donations). Thus, the financing of environmental policies in Lebanon is varied, but external funds are significant. Funding reveals the donors' **strategies** and **influences**. For example, the ERBD is financing up to 1 million € in sustainable infrastructures. It is also involved in policy-making³¹, and this direct participation signals that the European Union bolsters its presence in Lebanon and enforces its close link with a strategic country.

5.3 Summary

This analysis highlights how there are different ways that geopolitical elements can be part of policies and have consequences on them, leading to different results. For example, Jordan and Lebanon have similar influences in their policies, including international influence, joint programmes, and similar financing systems. However, Lebanon, due to its context, has a weak governmental place in the policy-making in favour of strong CSOs participation, whereas Jordan operates the opposite model. General trends reveal that Jordan appears to be on its way to a green economy while Lebanon struggles to encourage green technology in SMEs, mainly sustained by international partners and institutions supporting projects and programmes.

In summary, there are several ways to enforce policies and position them within the power dynamics, and geostrategies help navigate the most effective and appropriate methods: policy changes and improvements can be developed to ensure progress.

6 Conclusion and recommendations

Multiple barriers have been shown to restrain policies from reaching their goals: gaps, inefficiency, and poor quality are examples of limits hindering progress. Tackling the issue of these challenges in innovation policies brings up multiple solutions. Among them is the geopolitical perspective. Adopting a geopolitical approach to innovation policies by focusing on three elements, stakeholders, financing and context, is an achievable solution to reach better policies. Indeed, these key elements display the importance of power dynamics that impact policies. It is the case of green technology in Small and Medium-sized Enterprises in Jordan and Lebanon. Both countries have developed actions regarding this theme, but geopolitical elements can explain limited results that could have been prevented and improved by taking geopolitics as an approach. It would enable to

³⁰ RCREEE, Central Bank of Lebanon, LCEC, *National Energy Efficiency and Renewable Energy Action* (2014)

³¹ "The EBRD's work in Lebanon", European Bank for Reconstruction and Development, accessed March 16th, 2022, <https://www.ebrd.com/where-we-are/lebanon/lebanon-overview.html>

identify the problem, and the context of creation and enable to work ahead on important elements. Actions to enhance the consideration of geopolitical elements can be taken, including:

1. Make **systematic, detailed research** of potentially involved stakeholders when creating policies. Some specific questions raised, including: who is involved in the creation? Who is financing? Who can we get inspiration from? The answers to these can serve as a guide to choosing strategic partners that would meet the goals of a policy. Information on the context, geopolitical and political, as well as the aims should be developed. Therefore, more direct, adjusted and efficient policies could be created by taking into account these elements.
2. Provide a **geopolitical analysis table** to ease the work for policymakers. Having a table gathering key geopolitical questions and elements that policymakers could check and work with could be a way to enhance the consideration of geopolitics and raise awareness of the importance of the choices made.
3. Connect policymakers with **professional geopoliticians**. Professional geopoliticians are experts and graduates who are specialised in geopolitics and have experience in the field. They would be able to provide information, perspective and advice to policymakers on the geopolitical elements to take into consideration while creating policies. They could highlight strategic choices and guide and assist on tangible questions such as context, soft power, and ratios of power.
4. Give more **access to information**. Sometimes it is difficult to find information on geopolitical elements, especially financing. Easing access to this information could enable policymakers to consider more the impact such elements can have on a final policy.
5. Increase **dialogue** to connect multiple stakeholders and policymakers. This way, communication could shed light on potential choices in partners, strategies, ratios of power, and context.

Appendix:

	JORDAN		LEBANON	
	National	International	National	International
Policies / Regulations	<ul style="list-style-type: none"> - "Jordan National Vision and Strategy for 2025" - "National Green Growth Plan for Jordan" (2016) - "National Climate Change Strategy and Sector Strategic Guidance Framework" (2013-2020, extended to 2030) - "Climate Change Adaptation and Low Emission Development Strategy" (2013) - Laws such as the "Renewable Energy & Energy Efficiency Law" (2012) 	<ul style="list-style-type: none"> - United Nations Framework Convention on Climate Change (UNFCCC, 1992)* - Rio Declaration (1992)* - Kyoto Protocol (2003)* - Paris Agreement (2016)* 	<ul style="list-style-type: none"> - "Lebanon SME Strategy, Road to 2020" (2014) - "National Renewable Energy Action Plan (2016-2020)" - "National Strategy for air quality management (2015-2030)" - Laws such as the "Protection of Air Quality" (Law 78/2018), the "Protection of the Environment" (Law 444/2002) 	<ul style="list-style-type: none"> - United Nations Framework Convention on Climate Change (UNFCCC, 1992)* - Rio Declaration (1992)* - Kyoto Protocol (1997)* - Paris Agreement (2016)*
Stakeholders	<ul style="list-style-type: none"> - Ministry of Environment (2003) - Other Ministries : Health, Agriculture, Water and Irrigation 	<ul style="list-style-type: none"> - Institutions: United Nations (UN), European Union (EU) - Western Countries (for instance Germany, South Korea) 	<ul style="list-style-type: none"> - Ministry of Environment (1993) - Other Ministries - Civil Society Organisations: Non-Governmental Organisations (NGOs), associations, consultants, universities. For instance Green Line Association. 	<ul style="list-style-type: none"> - Institutions: United Nations (UN), European Union (EU) - Civil Society Organisations
Financing	<ul style="list-style-type: none"> - Jordan Renewable Energy and Energy Efficiency Fund (JREEEF, Ministry of Energy and Mineral Resources) - Jordan Environment Fund (JEF, Ministry of Environment) - Budget of the Ministry of Environment (± 6 million JOD in 2021, representing 0.06% of total budget of the government) through Central Bank of Jordan 	<ul style="list-style-type: none"> - Institutions: United Nations (through programs), European Union (through joint programs) - Development or commercial bank loans (like the European Bank for Reconstruction and Development) - Donors - Aids 	<ul style="list-style-type: none"> - Budget of the Ministry of Environment: regulated by the Central Bank of Lebanon, it fluctuates between 3 and 8 Million US\$ a year (0.8% of GDP invested in the environmental sector) 	<ul style="list-style-type: none"> - Institutions: United Nations, European Union - Development bank loans (EBRD) - Aids (Agence Française de Développement) - Donation - Investments

*Dates of ratification of the Treaties in the country

Table summarising the comparison of the geopolitical elements in policies on green technologies in SMEs in Jordan and Lebanon (Amélie André)



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