Enabel

Evaluation report on the

Resilience in Schools of East Jerusalem (RiSE)

ENABEL PZA-170421T

Palestine

Cowater International

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The report was drawn up by independent external experts.

The opinions expressed in this document represent the views of the authors and are not necessarily shared by Enabel, the Belgian Cooperation or the authorities of the countries concerned.

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Acronyms

CNC	Computer Numerical Control
CSO/NGO	Civil Society Organization / Non-Governmental Organization
Enabel	Belgian Development Agency
EU	European Union
JDoE Waqf	Jerusalem Directorate of Education
KG	Kindergarten
KII	Key Informant Interview
MoE	Ministry of Education
MoLG	Ministry of Local Government
OECD-DAC	OECD's Development Assistance Committee
PCU	Project Coordination Unit
PLA	Participatory Learning and Action
PSU	Project Steering Committee
RiSE	Resilience in Schools in East Jerusalem
SERATAC	Supporting an Education Reform Agenda for Improving Teaching, Assessment, and Career Pathways
STEAM	Science, Technology, Engineering, Arts, and Mathematics
TdH	Terre des Hommes
ToR	Terms of Reference
TVET	Technical and Vocational Education and Training
UNRWA	United Nations Relief and Works Agency

Cooperation project/programme sheet

Title	'RiSE' project - Resilience in Schools of East Jerusalem
Project code	UE: ENI/2019/407-817 ENABEL: PZA 170421T
Intervention zone	East Jerusalem, Palestine
Priority sector/Global Challenge	Education facility and training Environment and Climate
Partner country	Palestina, Occupied Territories
Partner institutions	Donors: European Union, Belgium (DGD) Partner Institutions: - Jerusalem Directorate of Education – JDoE (Waqf) - Ministry of Education (MoE) Synergies: Terres des Hommes Italy (TdH - IT)
Total budget	€ 12,013,168 (€ 5,107,330 EU + € 6,905,838 BE)
Start date – end date	01/06/2019 - 31/07/2024 (62 months)
Impact	To strengthen the resilience of the community in East Jerusalem by improving access to education and school infrastructure
Outcome	To increase the access to education in East Jerusalem through the creation of a healthy, safe, child and environment friendly education atmosphere involving the end users and the educational communities
Outputs	R1 - The infrastructure of schools in East Jerusalem is improved and provides an inclusive, safe, healthy and environmentally friendly environment. R2 - Students have gained life skills and have an increased sense of ownership of the school by being actively involved in the rehabilitation process ("Fab-Labs") R3 - The community is actively involved in the creation of 5 to 6 semi-public external spaces in or around the upgraded schools ("Public Spaces")
Target groups	4579 Students (3034 male, 1545 female), of which: • 2807 Students (1757 male, 1050 female) of the 16 selected schools to be rehabilitated. • 1472 Students (1077 male, 395 female) of the Colleges des Freres in Beit Hanina, who will benefit from a sports playground • 300 Students (200 male, 100 female) from a new school to be created • 378 Teachers (100 males, 278 females), of which: 253 Teachers (45 males, 205 females) of 16 schools rehabilitated. • 98 Teachers (40 males, 58 females) of the Colleges des Freres in Beit Hanina, who will benefit from an improved sports playground. • 30 Teachers (15 male, 15 female) of the new school to be created. Inhabitants of the five neighbourhoods equipped with a public space
Period covered by the evaluation	Period not covered by any evaluation: from 1st quarter 2022 to 2nd quarter 2024.

Acknowledgements

We would like to extend our sincere gratitude to all those who contributed to this evaluation report. We appreciate the invaluable insights and feedback provided by our Enabel colleagues, as well as the partners and stakeholders involved during this evaluation process. Their cooperation and willingness to share information made this report possible. Special thanks are also extended to the members of the evaluation team for their dedication and commitment throughout the process.

Evaluation Team

The evaluation team consisted of two experienced evaluators from Cowater International, led by Mr. Samer Said, a humanitarian and development consultant with extensive expertise in monitoring, evaluation, and research across the Middle East and North Africa. Quality control was ensured by Mr. Alexandre Naud, an expert in development and humanitarian affairs, while Ms. Khaoula Zorgane managed the project's daily operations. The team was further supported by Marta Chudzikiewicz, Cowater International's Head of M&E Department, overseeing contract management and evaluation execution

1 Background and context

1.1 Introduction

This report presents the results of the independent final evaluation of the "Resilience in Schools of East Jerusalem" (RiSE) project. The RiSE project, implemented from June 1, 2019, to July 31, 2024, aimed to strengthen the resilience of East Jerusalem schools through three main outputs. Output 1 focused on rehabilitating school infrastructure, Output 2 aimed to enhance life skills for students by providing Fab Labs and additional capacity support, and Output 3 sought to establish 5-6 public and semi-public spaces for Palestinian communities in East Jerusalem. While a Mid-Term Review (MTR) conducted in October 2021 primarily evaluated Output 1, this final evaluation centres on Outputs 2 and 3, covering the period from November 2021 to June 2024. Commissioned by Enabel, this evaluation serves both learning and accountability purposes, providing a comprehensive assessment of the project's performance, progress toward achieving its outputs and objectives, and offering actionable recommendations for the design and future implementation of RiSE.

1.2 Results and Strategy

1.2.1 The Strategic Evolution of ENABEL's Educational Programs in East Jerusalem

ENABEL's involvement in the Palestinian education sector is deeply rooted in longstanding collaborative efforts with local authorities. One notable initiative, the Schools 4 Programme, formed a pivotal component of a previous bilateral program, operating from 2013 to 2023. Building upon the accomplishments of Schools 4, the "Resilience in Schools in East Jerusalem" (RiSE) project was launched in 2019, strategically aligning with other Belgian and EU-funded endeavours to leverage synergies.

1.2.2 RiSE Project Overview and Objectives

The overarching goal of the RiSE project was to fortify the resilience of the Palestinian community in East Jerusalem by enhancing access to education, bolstering school infrastructure, and revitalizing public spaces. Adopting a comprehensive approach, RiSE focused on not only improving the physical school environment and student well-being but also fostering community engagement and ownership through participatory methods. This multifaceted strategy aimed to cultivate motivation and life skills among students and the broader local populace.

RiSE aimed to enhance access to education by addressing the chronic lack of classrooms and improving the overall infrastructure of schools in East Jerusalem. The project sought to revitalize public spaces to create a more conducive learning environment and foster a sense of community among residents.

A key component of RiSE was its focus on community engagement. By involving local stakeholders in the planning and implementation process, the project tried to promote a sense of ownership and empowerment within the community. Participatory methods were employed to ensure that the needs and perspectives of students, teachers, and families were considered, leading to more effective and sustainable outcomes.

Furthermore, RiSE aimed to bolster student well-being by creating safe and supportive school environments. The project emphasized the development of life skills and motivation among students, equipping them with the tools needed to navigate their educational journeys and future careers successfully.

By addressing these critical areas, RiSE tried to contribute to the resilience and empowerment of the Palestinian community in East Jerusalem, laying the foundation for sustainable development and improved educational outcomes.

1.2.3 Outputs and Beneficiaries

Under the RiSE umbrella, the scope of the schools 4 Programme was expanded to encompass 16 schools, prioritizing the integration of a life skills educational framework for East Jerusalem students. The project aimed to identify and revitalize six public spaces near schools, engaging both the school and local community in the design and implementation process to promote ownership and sustainability, fostering resilience-building initiatives.

The RiSE project aimed to enhance the resilience of Palestinians in East Jerusalem by improving access to education and upgrading school infrastructure. It sought to achieve this by fostering a healthy, safe, child-friendly, and environmentally sustainable educational environment in collaboration with end users and educational communities. The project targeted 4,579 students and 381 teachers across various schools and neighbourhoods in East Jerusalem.

By focusing on these areas, RiSE aimed to create lasting improvements in the educational landscape of East Jerusalem, empowering students and teachers and strengthening the community's overall resilience.

Table 1: Beneficiary Break Down

Direct Beneficiaries: Students			
Category	**Total Students**	**Male**	**Female**
The 16 Selected Schools to be Rehabilitated	2807	1757	1050
Colleges des Freres in Beit Hanina	1472	1077	395
New School to be Created	300	200	100
Total	**4579**	**3034**	**1545**
Direct Beneficiaries: Teachers			
The 16 Selected Schools to be Rehabilitated	253	45	205
Colleges des Freres in Beit Hanina	98	40	58
New School to be Created	30	15	15
Total	**381**	**100**	**278**

1.2.4 Expected Results

The expected results of RiSE are three-fold. However, it's important to note that this evaluation focuses specifically on results R2 and R3. The anticipated outcomes include the following:

Output 1 (R1): The infrastructure of schools in East Jerusalem is improved and provides an inclusive, safe, healthy, and environmentally friendly environment.

Output 2 (R2): Students have gained life skills and have an increased sense of ownership of the school by being actively involved in the rehabilitation process.

Output 3 (R3): The community is actively involved in the creation of 5 to 6 semi-public external spaces in or around the upgraded schools.

By focusing on these outcomes, RiSE aimed to create lasting improvements in the educational landscape of East Jerusalem, empowering students and teachers and strengthening the community's overall resilience.

1.2.5 Amendments and Budget Reallocation in the RiSE Project

Initially set for 39 months with a budget of €6,663,168, the RiSE project underwent several amendments for extension and increased funding.

On November 8, 2021, the first amendment extended the project by 14 months and raised the EU's contribution by €850,000, with Belgian parallel co-funding increasing by €4.5 million. This resulted in a new total budget of €12,013,168. The additional funds aimed to expand ongoing activities, such as establishing two school extensions, creating four additional Fab-Labs, potentially developing a new school, providing extra equipment, and offering more teacher training.

The second amendment, on August 14, 2023, extended the project by 12 months at no added cost, to accommodate delays caused by the COVID-19 pandemic, particularly in developing public spaces (R3). Budget reallocation shifted funds from Result 1 (R1) to Results 2 (R2) and R3, following the cancellation of plans to purchase and convert an existing building into a new school due to difficulties in securing suitable buildings.

1.3 Context and Background

1.3.1 Context in Summary

The education system in the West Bank, Gaza Strip, and East Jerusalem is facing significant challenges, as highlighted by the World Bank's SERATAC report. Key issues include poor education quality, especially in pre-primary and primary stages, where underqualified teachers and insufficient reading proficiency undermine students' success in STEM fields.[1] Additionally, the lack of skilled STEM teachers contributes to students' disengagement, leading many to choose humanities over STEM in secondary and tertiary education due to poor job prospects.[2]

Palestinian students have experienced substantial learning loss due to intermittent school closures caused by the COVID-19 pandemic, military escalations, economic hardships, infrastructure shortages, and teacher protests. Efforts to transition to online learning have been hindered by limited access to internet and technology, exacerbating disparities. In vulnerable areas like Area C and East Jerusalem, political instability and funding shortfalls further disrupt the education system. [3] [4]

In addition to these systemic issues, Palestinian students face significant learning loss due to intermittent school closures caused by the COVID-19 pandemic, military escalations, economic hardships, infrastructure shortages, and teacher protests. Efforts to transition to online learning have been limited by a lack of internet access and technological resources, exacerbating educational

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[1] *West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system

[2] *West Bank & Gaza - Education Action Project (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/258711475110913928/West-Bank-Gaza-Education-Action-Project

[3] *West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system

[4] Samman, Maha, and Yara Saifi. "Reproduction of Palestinian heterotopic space: encountering first wave of COVID-19 in east Jerusalem." *Middle East Critique* 31.2 (2022): 181-197.

disparities[5]. The situation is particularly dire in politically and economically vulnerable areas like Area C and East Jerusalem, where funding shortfalls and political instability further disrupt education.[6]

In East Jerusalem specifically, the challenges are extensive, including a chronic lack of classrooms, poor infrastructure, limited accessibility, safety concerns, high dropout rates, and fragmented coordination among stakeholders[7]. The annexation of East Jerusalem after the 1967 conflict has resulted in a severe shortage of educational facilities, with an estimated need for 1,200 additional classrooms. The difficulty in obtaining construction permits from the Municipality of Jerusalem forces schools to operate in inadequate leased spaces that lack essential amenities. Preservation mandates in the Old City further complicate the situation for Palestinian schools, while competition from well-resourced Israeli municipal schools threatens the preservation of Palestinian cultural identity in education[8].

Enabel's intervention area within East Jerusalem faces complex administrative boundaries, limited technical resources, and Israeli-imposed constraints. Approximately 88,000 students contend with poverty, few job prospects, and deteriorating educational facilities. The diverse educational institutions, including Municipality, Waqf, UNRWA, Private, and Sakhnin schools, add to the complexity, and a lack of coordination exacerbated by political tensions hampers planning and diminishes education quality. Consequently, due to these myriad challenges, the planned acquisition of an existing building for conversion into a school was cancelled, necessitating the reallocation of funds to other areas[9].

Additionally, students in East Jerusalem have faced unforeseen challenges such as the global COVID-19 pandemic, resulting in school closures and local strikes. The closure of the Jerusalem Directorate of Education (JDoE) offices and conflicts with Gaza further hindered education management and freedom of movement. These obstacles underscore the resilience required for project implementation in such a complex environment.

The confluence of these factors underscores the urgent need for comprehensive education reform across the West Bank, Gaza Strip, and East Jerusalem. Investing in teacher qualifications, early literacy, and STEM education, alongside robust career guidance, is crucial. Addressing the political, financial, and infrastructural challenges is also essential to creating a stable and supportive learning environment. By tackling these issues, the region can better equip its students for future success, fostering a skilled workforce that contributes to sustainable development and resilience in the face of ongoing challenges.

1.3.2 Education Challenges in East Jerusalem

East Jerusalem's education system is burdened by a severe shortage of classrooms, inadequate infrastructure, safety concerns, and high dropout rates. Following Israel's annexation of the area in 1967, the region has faced ongoing challenges in obtaining construction permits, forcing schools to

[5] MacKenzie, A., Bower, C., & Owaineh, M. (2020). Barriers to effective, equitable and quality education: a rights-based, participatory research assessment of inclusion of children with disabilities in Palestine. The International Journal of Children's Rights, 28(4), 805-832.
[6] Samman, Maha, and Yara Saifi. "Reproduction of Palestinian heterotopic space: encountering first wave of COVID-19 in east Jerusalem." Middle East Critique 31.2 (2022): 181-197.
[7] O'Connor, Karl, et al. "School choice and conflict narratives: Representative bureaucracy at the street level in east Jerusalem." *Administration & Society* 52.4 (2020): 528-565.
[8] Salem, Hilmi S. "Geopolitical challenges, complexities, and future uncertainties in the Occupied Palestinian Territories: Land and population's perspectives." *New Middle Eastern Studies* 10.1 (2020).
[9] Salem, Hilmi S. "Geopolitical challenges, complexities, and future uncertainties in the Occupied Palestinian Territories: Land and population's perspectives." *New Middle Eastern Studies* 10.1 (2020).

operate in subpar leased spaces. Competition from Israeli schools further threatens the preservation of Palestinian cultural identity in education. [10]

Enabel's intervention in East Jerusalem is constrained by administrative boundaries and Israeli-imposed limitations, affecting around 88,000 students who face poverty and poor job prospects. The pandemic and local strikes have further hindered educational management and school accessibility, emphasizing the need for resilience and comprehensive reforms[11] [12] [13] [14].

1.3.3 Context and Challenges in the Palestinian Education System

STEM Learning at each Educational Stage

The World Bank's report on the West Bank and Gaza Strip, titled "Supporting an Education Reform Agenda for Improving Teaching, Assessment, and Career Pathways (SERATAC)" highlights that the education system in the West Bank and Gaza Strip is experiencing a learning crisis, primarily due to poor quality education.[15]

During pre-primary education, Kindergarten (KG) teachers in the West Bank and Gaza Strip are often underqualified, limiting their ability to engage children in age-appropriate, play-based learning activities that foster early cognitive and socioemotional skills. This lack of qualification in KG teachers hampers the foundational development crucial for children's future learning success.[16]

In the lower primary grades, Palestinian students often fail to achieve basic reading proficiency. This deficiency in reading skills sets a precedent for future academic struggles, particularly in science, technology, engineering, and mathematics (STEM) fields, where reading is fundamental[17]. Contributing factors to this issue include: limited exposure to books before school entry, insufficient understanding of the science of reading, challenges associated with learning the Arabic language, inadequate teaching methods that are not age-appropriate[18].

As students' progress to upper primary and lower secondary levels, deficiencies in STEM subjects become more pronounced. These gaps are linked to their weak reading foundations and the increasing complexity of STEM materials. The lack of adequately skilled teachers in STEM subjects discourages student engagement, leaving many students uninterested or disengaged. Furthermore, STEM education is underdeveloped in both classroom settings and extracurricular activities, limiting opportunities for students to explore and nurture their curiosity in these fields[19].

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[10] Abdelrahman, Inas, and Ali Yousef Salhi. "Understanding the factors affecting the adoption of e-learning by teachers from east Jerusalem schools." *Ortadoğu ve Göç* 10.20 (2020): 305-348.
[11] Salem, Hilmi S. "Geopolitical challenges, complexities, and future uncertainties in the Occupied Palestinian Territories: Land and population's perspectives." New Middle Eastern Studies 10.1 (2020).
[12] Mater, Naela Rashad, et al. "The effect of the integration of STEM on critical thinking and technology acceptance model." *Educational Studies* 48.5 (2022): 642-658.
[13] O'Connor, Karl, et al. "School choice and conflict narratives: Representative bureaucracy at the street level in east Jerusalem." *Administration & Society* 52.4 (2020): 528-565.
[14] Salem, Hilmi S. "Geopolitical challenges, complexities, and future uncertainties in the Occupied Palestinian Territories: Land and population's perspectives." *New Middle Eastern Studies* 10.1 (2020).
[15] West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system
[16] Mater, Naela Rashad, et al. "The effect of the integration of STEM on critical thinking and technology acceptance model." *Educational Studies* 48.5 (2022): 642-658.
[17] Al-Hroub, Anies. "Evaluating gifted education in Palestine: A study of educational and learning capitals." *Cogent Education* 10.2 (2023): 2240931.
[18] Itmazi, Jamil, and Zuheir N. Khlaif. "Science education in Palestine: Hope for a better future." *Science Education in Countries Along the Belt & Road: Future Insights and New Requirements*. Singapore: Springer Nature Singapore, 2022. 129-149.
[19] Daragmeh, Abdelkarim, and Aya Halabi. "A diagnostic study of entrepreneurial education readiness in the humanities and social sciences in Palestine." *Journal of Entrepreneurship, Business and Economics* 11.1 (2023): 63-101.

In upper secondary education, students often choose the Humanities stream over the STEM stream. This choice is influenced by a lack of preparedness in mathematics, science, and digital knowledge, limited career guidance and opportunities to develop interests and talents in STEM, and discouragement from the high scores required in the secondary school leaving examination ('Tawjihi') for entry into STEM fields like engineering. As a result, only around 35 percent of students opt for the STEM stream[20].

Approximately 60,000 Palestinian students enrol in tertiary education annually, with only 22.5 percent pursuing STEM-related fields of study. Of the 40,000 students who graduate each year, employment opportunities are scarce, further discouraging students from engaging deeply in STEM disciplines. This bleak job market diminishes the appeal of STEM education and hinders the development of a skilled workforce in these critical fields[21].

There is an urgent need for education reform in the West Bank and Gaza Strip. By investing in teacher qualifications, fostering early literacy, enhancing STEM education, and providing robust career guidance, the region can better equip its students for future success and contribute to sustainable development.

Learning Loss

For at least four years, children in Palestine have been facing intermittent but intense learning loss due to a combination of factors. The COVID-19 pandemic, ongoing military escalations, closures, a severely difficult economic situation, a shortage of physical infrastructure to accommodate students, and an increase in teacher protests have all contributed to prolonged school shutdowns, resulting in significant disruptions to their education[22].

Efforts to mitigate this learning loss have primarily focused on transitioning education to online platforms. However, this approach has its limitations. Not all families have access to the internet, and many lack the financial means to provide tablets or computers for their children. As a result, a substantial number of students are unable to participate in online learning effectively[23].

The situation has been particularly concerning over the past four years. Learning loss and the overall state of the education system in Palestine have become pressing issues. The challenges are compounded not only by global measures such as stay-at-home orders but also by the unique difficulties faced by children living under occupation. This encompasses the fact that it is often unsafe for them to attend school, many cannot reach their schools due to restrictions, and some are unable to participate due to a shortage of physical infrastructure[24].

The Palestinian education system faces political, financial, and physical constraints, making it highly vulnerable to many uncontrollable variables. The most vulnerable areas are Area C and East Jerusalem in the West Bank, where Israel exerts full control over the land and the people. In these regions, the Ministry of Education (MoE) and the Ministry of Higher Education (MoHE), which are

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[20] Al-Hroub, Anies. "Evaluating gifted education in Palestine: A study of educational and learning capitals." *Cogent Education* 10.2 (2023): 2240931.
[21] *West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system
[22] Itmazi, Jamil, and Zuheir N. Khlaif. "Science education in Palestine: Hope for a better future." *Science Education in Countries Along the Belt & Road: Future Insights and New Requirements*. Singapore: Springer Nature Singapore, 2022. 129-149.
[23] Ali, Kareema, Daniel Burgos, and Saida Affouneh. "Educational loss at times of crisis: the role of games in students' learning in Palestine and Iraq." *Sustainability* 15.6 (2023): 4983.
[24] Al-Hroub, Anies. "Evaluating gifted education in Palestine: A study of educational and learning capitals." *Cogent Education* 10.2 (2023): 2240931.

responsible for managing the public education system in Palestine, rely heavily on the international donor community for funding. However, in recent years, there has been a funding shortfall, affecting salaries and leading to teacher boycotts and increased protests[25].

Additionally, the internal Palestinian political divide has further disrupted services, including the ability to conduct regular educational activities. Furthermore, some children are forced to leave school temporarily to support their families financially, further disrupting their education and causing them to fall behind academically[26].

These circumstances have significantly impacted the academic development of Palestinian children. The interruptions in their education have made it difficult for them to retain and build upon the knowledge gained in previous academic years. This, in turn, affects the overall school system and academic planning, posing long-term challenges for the educational and developmental prospects of children in Palestine.

[25] *West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system

[26] *West Bank and Gaza: Education sector analysis - impressive achievements under harsh conditions and the way forward to consolidate a quality education system (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/561841468141888729/West-Bank-and-Gaza-Education-sector-analysis-impressive-achievements-under-harsh-conditions-and-the-way-forward-to-consolidate-a-quality-education-system

2 Objectives and methodology

2.1 Purpose, Objectives, Scope

2.1.1 Purpose

The evaluation served the dual and mutually reinforcing objectives of accountability and learning:

Accountability: The evaluation assessed and reported on the effectiveness of the project in attaining its intended outcomes, as mandated by its donors and stakeholders.

Learning: The evaluation identified both successful strategies and areas for improvement ("what worked" and "what didn't work"), drawing lessons and best practices. It provided valuable insights for future initiatives, facilitating evidence-based decision-making for scaling up or extending similar projects.

2.1.2 Objective

The main objectives outlined in the ToR for this evaluation were as follows:

- Conduct a comprehensive assessment of the project's performance, with particular attention to its effectiveness, sustainability, and the integration of gender aspects.
- Enhance understanding of key mechanisms crucial for ensuring sustainability.

2.1.3 Scope

The project implementation period extended from June 1, 2019, to July 31, 2024. However, the evaluation specifically concentrated on the period from the 1st quarter of 2022 to the 2nd quarter of 2024. Previous evaluations, including a Mid-Term Review, covered the initial years of the project.

Given the ongoing war and its impact on access to some areas of Jerusalem, the project team proposed a slight revision of the scope during the inception phase:

1. Focus on Result 2 and associated components such as FABLABS/STEAM under the school's component, which Enabel plans to continue through new bilateral programming.
2. Conduct a generic analysis of the public spaces components under Result 3.

2.1.4 Evaluation Criteria

In line with the Enabel evaluation policy, the team drafted the evaluation matrix (see Annex 2) as a roadmap for the analysis of each evaluation question and sub-question. This involved defining clear assessment criteria and performance indicators and organizing the data collection to ensure the evaluation's evidence-based nature. The evaluation applied the OECD-DAC criteria, encompassing relevance, effectiveness, efficiency, sustainability, coherence and impact. The ToR defined a series of evaluation questions. These questions were scrutinized for logic, fit, clarity, and coverage. Sub-questions were proposed by the ToR for questions 1 and 6, while the remaining sub-questions were developed by the evaluation team. The evaluation questions and sub-questions are detailed in the Evaluation Matrix (**Annex 2**).

2.2 Governance of the Evaluation

The implementation process of this evaluation followed the following implementation mechanism:

- To meet Enabel's needs and expectations, the evaluation focal point maintained close contact with the focal points of the Enabel Operations Advisor (at headquarters) and focal points in field offices. The team worked closely with Enabel to collect the necessary documents and data, establish communication with key stakeholders, and assist in organizing meetings.
- The Review presented its deliverables and findings to the Evaluation Reference team as described in the ToR (see **Annex 4**). The reference group ensured follow-up of the review process and provided comments on the inception report, findings, analysis, conclusions, recommendations, and lessons learned.
- Before the start of the data collection phase, the team held a briefing with the Enabel country office to develop and validate planning, approaches, and tools. After the data collection phase, the team held a preliminary findings workshop to present and discuss their main findings. The Enabel field offices assisted with organizing these workshops and provided guidance on the attendees.

2.3 Approach

The evaluation used a non-experimental "theory-based" approach to assess the implementation and the results of the RiSE project and its various approaches against the evaluation matrix. Plausible contributions to outcomes were examined based on documented results and further information solicited from key stakeholders, including an assessment of the relative contribution of RiSE vs. that of other actors and explanatory factors, following Enabel's performance matrix and performance tracking in annual reports. This approach made it possible to assess the "how" and the "why" of the results, clarifying the underlying assumptions, mechanisms, and pathways through which the action was expected to achieve its intended outcomes.

The evaluation employed qualitative methods for data collection, combining both quantitative and qualitative methods for data analysis to provide a holistic understanding of the program's outcomes. Threats to internal content validity were minimized based on the principles of aggregation using the extensive list of questions and sub-questions included in the evaluation matrix. The evaluation relied on data collection approaches and analytical tools that had been tested in other similar evaluations.

The evaluator conducted semi-structured interviews with project beneficiaries, stakeholders, teachers, principals, space managers, and other relevant individuals. These interviews allowed for deep exploration of experiences, perceptions, and insights related to the project. Direct observations and site visits provided important contextual data and ensured a degree of triangulation of findings through direct observation. Lastly, document review and analysis of project documents, progress reports, meeting minutes, and other relevant material helped the evaluation team understand the operational context as issues unfolded.

Triangulation was achieved by relying on multiple qualitative sources (interviews, observations, and project documents) combined with quantitative measures based on existing documents. This enhanced the reliability and validity of the results. Triangulation was also ensured through the inclusion of multiple perspectives, reducing bias and providing a more comprehensive understanding of the project outcomes.

Measurement reliability issues were minimized by checking the consistency of responses across schools and days with similar groups. Consistency of responses to similar questions and measures was ensured by sharing coding checks during interview analysis with the QC team at Enabel. This created a degree of internal consistency and ensured that more than one person had access to the results and were in agreement on ratings.

The credibility and transparency of the analysis and findings were ensured by presenting the results of triangulated analysis across measures and data sources and tracing the rationale from data points to findings, conclusions, and recommendations in the final report. Internal quality assurance mechanisms also enhanced the credibility of the evaluation report and its findings.

This approach enhanced the credibility and depth of findings, facilitating more informed decision-making and tailored program improvements. Both primary and secondary data were collected and analysed through a literature, learning, and data review, and semi-structured interviews with selected key informants.

The evaluation was utilization-focused, applying participatory and constructive working methods to promote buy-in and learning. By engaging with a variety of stakeholders, including partners, it obtained firsthand insights and perspectives for a deeper understanding of program results and impacts, ultimately leading to more effective and sustainable outcomes.

2.4 Stakeholders and Users

Primary users directly impacted by evaluation outcomes include Enabel Intervention Team, the JDoE, the Palestinian MoE, and Enabel's portfolio developers. Secondary users, aiming to understand results, encompass national stakeholders such as schools, universities, and local government targets. International organizations like Terre des Hommes (TdH), as well as direct or indirect beneficiaries such as students, teachers, parents, and residents in targeted areas, also fall under this category.

Evaluation Governance

The evaluation process followed these mechanisms:

- The evaluation focal point maintained close contact with Enabel's Operations Advisor and focal points in field offices, ensuring seamless communication and data collection.
- Deliverables and findings will be presented to the Evaluation Reference team, which provided feedback and ensured a thorough review process.
- Meetings and briefings were held before and after data collection to validate methodologies and discuss preliminary findings, with guidance from Enabel field offices.

2.5 Data Collection Methods

The data collection methods included:

1. **Documentation Review:** The documents reviewed were those relevant to program planning and monitoring, including the Contribution Agreement, its amendments and annexes, the Annual Progress Report 2022, and the Mid-Term Review. Where relevant, the evaluation also consulted external documents through sectoral literature as well as academic peer-reviewed articles to understand sectoral priorities nationally and internationally, as well as global priorities and strategies in education.
2. **Key Informant Interviews (KIIs):** The KIIs covered all sub-questions with a varied list of

stakeholders. These interviews included the MoE and the East Jerusalem Directorate of Education, and Enabel staff members. The list of KIIs is found in **Annex 8**.

2.6 Analysis, Reporting and Learning

The core analysis method involved triangulating data from different sources and methods. Observations were compared and contrasted against reasonable expectations, considering the starting position, contextual complexities, and changing events in the operating environment. The analysis of secondary qualitative data was structured to generate evidence using the indicators of the Evaluation Matrix, thereby answering the Evaluation Questions (EQs). This evaluative process aimed to contribute to evidence-based decision-making and learning, enabling Enabel to adapt and respond adeptly to changing dynamics within the digitalization in the development landscape. The lessons learned from this evaluation were instrumental in shaping a more impactful and sustainable future for Enabel's efforts.

2.7 Ethics

The Review was conducted in full compliance with the ethical standards laid down by OECD-DAC for evaluation, the Enabel normative framework (MoRe Results guidelines), and Cowater International Quality Standards. The team further acknowledges Enabel Code of Conduct[27], Enabel's Policy regarding sexual exploitation and abuse[28], Enabel's Personal data protection Policy[29] and Enabel's Policy regarding fraud and corruption risk management[30] for the ethical considerations during the Review.

Cowater International's ethical guidelines for evaluation are based on commonly held and internationally recognized professional ideals. All experts engaged in an evaluation with Cowater International are subject to our Charter of Conduct, which obliges them to conduct themselves in accordance with the highest standards of integrity. The guidelines apply to the conduct of all evaluations undertaken by Cowater International.

Aligned with Enabel's evaluation guidelines, the team ensured that the Review was gender-sensitive and respected the rights-based approach, "leaving no one behind," and "do no harm" principles. Disaggregated data was presented to clarify any differences between sexes and between different groups of vulnerability, including excluded groups. These approaches were reflected in the processes and tools developed and used for the Review.

The evaluation team was independent from the project, including its policy, operations, and management functions, as well as intended beneficiaries. The team declared that none of its members had any conflicts of interest.

[27] https://www.enabel.be/app/uploads/2022/08/Enabels-code-of-conduct.pdf
[28] https://www.enabel.be/app/uploads/2022/08/Enabels-policy-on-sexual-exploitation-and-abuse.pdf
[29] https://open-learning.enabel.be/admin/tool/policy/viewall.php?returnurl=https%3A%2F%2Fopen-learning.enabel.be%2Flogin%2Findex.php

[30] https://www.enabel.be/app/uploads/2022/08/Enabels-policy-on-fraud.pdf

3 Analysis and findings

The following section presents findings derived from the analysis and triangulation of primary and secondary data sources. The content addresses the two main evaluation questions outlined in the Terms of Reference and is organized in accordance with the OECD DAC criteria of relevance, coherence, efficiency, effectiveness, impact and sustainability. These findings provide a comprehensive understanding of the current status and potential impact of Fab Labs (R2) and Public Spaces (R3) in East Jerusalem schools.

3.1 Performance Analysis

RELEVANCE	A	B	C	D

Score: B While the project is highly relevant to the immediate needs of the target population, challenges in stakeholder engagement reduce its overall relevance and potential for long-term sustainability.

The evaluation reveals that the project is highly relevant to addressing the educational and social needs of Palestinians in East Jerusalem, particularly in light of the chronic shortage of classrooms, outdated educational infrastructure, and the disparities between Israeli and Palestinian schools. The project's focus on improving educational infrastructure, providing modern tools, and enhancing the learning environment aligns closely with the needs of Palestinian students, who are often drawn away from local schools due to better resources offered by Israeli institutions. Moreover, the project's integration of Fab Labs and STEAM education demonstrates a forward-thinking approach that seeks to align Palestinian schools with global educational trends, which is critical for the long-term resilience and empowerment of the Palestinian community.

The RiSE project fits within the broad objectives of the Ministry of Education's strategic plan (2017) and the (2020) update, which emphasizes STEM and digital learning, there is a disconnect in its coordination with national policy-making bodies.

Additionally, the project's focus on public spaces under R3 is highly relevant to community needs, particularly in marginalized Palestinian neighbourhoods within East Jerusalem. These spaces offer critical opportunities for community engagement, social cohesion, and resilience, addressing both immediate needs and deeper socio-political challenges. However, outside the Annexation Wall, the project faced significant challenges related to governance and alignment with national authorities, particularly in working with municipalities and navigating regulatory environments. The absence of robust stakeholder engagement and formal governance structures limited the project's ability to achieve more substantial results in these areas.

COHERENCE	A	B	C	D

Score B: The RiSE project effectively aligned with other initiatives, particularly in Fab Labs and environmental activities, but governance challenges, limited partnerships, and political constraints reduced its coherence and integration with national frameworks.

The project demonstrated strong efforts to synergize with ongoing initiatives in East Jerusalem, including EU-supported projects like Terre des Hommes (TdH) and the "Schools 4" initiative. These

efforts, particularly in STEAM education and environmental activities, positioned the project as an innovative force with the potential to influence future educational programs in Palestine. However, diplomatic tensions between Belgium and Israel limited the project's collaboration with the Ministry of Education (MoE), forcing reliance on the Jerusalem Directorate of Education (JDoE). This introduced delays, resource challenges, and restricted the project's ability to fully integrate into national strategies, especially in STEAM education.

The lack of a coherent strategy to incorporate Fab Labs into the national curriculum and limited engagement with key MoE departments hindered the project's scalability and broader adoption. Additionally, R3 lacked national-level governance, reducing the project's ability to link its educational, environmental, and infrastructure goals. However, the collaboration with TdH expanded the project's impact, particularly through greening initiatives, demonstrating adaptability and resourcefulness.

EFFECTIVNESS	A	B	C	D

Score: B: The RiSE project made notable progress in delivering key infrastructure and promoting community engagement, particularly through the establishment of Fab Labs in schools and the creation of semi-public spaces in East Jerusalem. However, operational challenges, limited integration of curriculum, and governance issues impacted the project's full potential. Better coordination, more comprehensive training, and institutional partnerships could enhance the project's overall effectiveness.

- **R2: Fab Labs**

The project successfully provided Fab Labs equipped with advanced technology, surpassing its initial target by increasing technological capabilities in East Jerusalem schools. However, unresolved technical issues, such as the lack of ventilation for CNC machines and the absence of Arabic manuals, hindered full utilization. Additionally, delays in the handover process and incomplete coordination between stakeholders have restricted their operationalization. Inadequate teacher training and the absence of formal curriculum adoption further limited the labs' effectiveness in fostering 21st-century skills.

- **R3: Semi-Public Spaces**

The project created six semi-public spaces that successfully fostered community participation and provided safe environments for recreational and educational activities. Despite initial challenges, the project adapted and made significant progress in strengthening community cohesion. However, the lack of an institutional partner limited governance and coordination, highlighting the need for stronger partnerships to ensure sustainability.

- **Success Factors:**
- High-quality infrastructure delivery for Fab Labs and semi-public spaces.
- Resilience and adaptability in overcoming challenges.
- Strong community engagement through semi-public spaces.
- **Challenges:**
- Incomplete Fab Lab setups due to unresolved technical issues.
- Delays in the handover process, limiting Fab Lab use.
- Limited teacher training and lack of curriculum adoption.
- Governance issues and lack of institutional partnerships in R3.

EFFICIENCY	A	B	C	D

Score: B The project demonstrated strong cost management by maximizing activity expenditure and minimizing administrative costs. However, time inefficiencies arose from the sequential implementation of R1, R2, and R3, leading to missed opportunities for simultaneous work and requiring multiple no-cost extensions. Additional human resources and a parallel implementation strategy could have improved efficiency, reduced delays, and optimized progress.
In terms of cost efficiency, the project consistently achieved over 85% of its planned expenditures in the first three years but saw a decline in 2022, with only 54% of planned commitments met. Despite this, the project maintained its scope, secured additional funding, and realized efficiency gains by reducing administrative costs from 16% to 13% while increasing activity costs from 80% to 85%. Missed opportunities, such as redundancies in school refurbishments, could have been avoided with concurrent implementation of all components. Adding specialized human resources could have accelerated the project, optimized resource allocation, and allowed the team to focus on core strengths like infrastructure and project management.

SUSTAINABILITY	A	B	C	D

Score: B The Fab Labs (R2) and semi-public spaces (R3) developed under the project show strong potential for sustainability due to institutional support, community engagement, and robust training mechanisms. However, challenges related to resource availability, political instability, and financial constraints must be addressed to ensure long-term success.

Fab Labs (R2)
Sustainability is supported by institutional backing from the Ministry of Education (MoE) and the Jerusalem Directorate of Education (JDoE), which see the Fab Labs as a national pilot. Teacher training and curriculum development also contribute to sustainability, but long-term financial sustainability depends on schools' ability to cover recurring costs, potentially through revenue from solar systems. Key hindering factors include insufficient teacher availability, political instability, and financial constraints that may limit the use of the labs.

The Fab Labs model has strong scalability and adaptability, with standardized tools and equipment that the MoE plans to replicate across Palestine. However, logistical challenges and the need for more teacher training could affect its broader implementation.

Semi-Public Spaces (R3)
The sustainability of semi-public spaces is closely tied to community ownership and engagement, achieved through participatory planning with civil society organizations. These spaces have become vital community hubs and have potential for replication in other areas of the West Bank. However, political restrictions and resource constraints, particularly in volatile regions, pose risks to their long-term viability. Maintaining safety and adequate resources is essential for ensuring their continued use.

IMPACT	A	B	C	D

Score: B
The project has made significant progress in fostering community resilience and supporting educational infrastructure, though the full impact of the Fab Labs is delayed due to operational issues. Once fully functional, the Fab Labs hold strong potential to enhance critical thinking, creativity, and technical

skills, influencing STEAM education across Palestine. The installation has already sparked interest from the Ministry of Education (MoE) in replicating the model nationwide.

The greening and art activities under R2 have immediately impacted students by improving their school environment, fostering engagement and retention. R3's rehabilitation of semi-public spaces has strengthened community cohesion and resilience by providing crucial hubs for social, recreational, and educational activities, while also preserving Palestinian heritage.

Positive spill-over effects include the MoE's interest in expanding the Fab Lab model and improved capacity for local civil society organizations (CSOs) through the use of semi-public spaces. However, challenges such as underutilization of the Fab Labs and delays in operationalizing certain spaces suggest further efforts are needed to fully achieve the project's potential.

3.2 In-depth Analysis

In this section the evaluation addresses multiple questions from the evaluation matrix including some questions that may intersect with other criteria. Each sub sections will present the questions and then follow up with findings.

3.2.1 Relevance

3.2.1.1 School/Education Infrastructure

Relevant Evaluation Questions:
Q3.3 Are there any mechanisms in place or knowledge products developed or adopted by national partners such as the Palestinian Ministry of Education? (Knowledge and best practices from the Fab Labs).
Q4.1 What evidence and degree of buy in and ownerships of these semi-public spaces?

Appropriateness

In East Jerusalem, the chronic shortage of classrooms and the substandard conditions of many educational facilities create a challenging learning environment. The insufficient infrastructure, coupled with a lack of pedagogical and technological tools, diminishes the quality of education provided to Palestinian children and youth. Visits conducted by the evaluator to selected schools revealed that principals are struggling with shortages in classrooms, multi-purpose facilities, labs, and financial resources necessary to support the educational process and extracurricular activities. Teachers' capacities are often outdated, and their low salaries fail to motivate them to enhance their skills, further weakening the educational system.

Israeli municipal schools, on the other hand, offer superior facilities, more attractive curricula, and better resources, drawing Palestinian and Jerusalemite students away from Palestinian educational institutions. This shift not only impacts student retention in Palestinian schools but also leads to a progressive impoverishment of Palestinian resilience, undermining efforts to provide a culturally relevant and high-quality education. Moreover, the high-paying Israeli job market lures many

Palestinian boys to drop out of school in pursuit of immediate financial gain. [31]This trend exacerbates the dropout rates and further weakens the Palestinian educational system, as it competes not only with Israeli schools but also with the job market.

The project aims to mitigate these challenges by improving educational infrastructure and resources, thus making Palestinian schools more competitive and appealing. By enhancing the quality of education and the learning environment, the project seeks to attract students to Palestinian schools and reduce dropout. This effort is crucial and highly needed for sustaining Palestinian resilience and ensuring that future generations receive an education that reflects and respects their heritage.

Addressing the disparities in educational quality and resources between Palestinian and Israeli schools is vital for the long-term resilience and empowerment of the Palestinian community in Jerusalem. The project's focus on improving educational infrastructure and resources is a step towards creating a more equitable and enriching educational landscape for students in the region. Additionally, efforts to green schools, provide STEAM and foster 21st century skills within Palestinian schools can enhance ownership and offer students viable alternatives to dropping out and entering the workforce prematurely, thereby fostering a more educated and skilled community.

Indeed, the project enhances the capacity of the JDoE and affiliated schools to attract and retain students through various initiatives. One key initiative is the development of enhanced and greener school environments, which fosters student ownership through greening activities and contributes to a more inviting and sustainable learning environment.

By creating and equipping Fab Labs, the project also aims to develop students' skills in science, technology, engineering, arts, and mathematics (STEAM). The project also trained teachers' capacity to utilize these labs in their classes. This support helps integrate innovative teaching methods and technologies into the curriculum, making education more engaging and relevant for students.

R2's focus on creating and equipping Fab Labs is a highly relevant initiative aimed at mainstreaming and enhancing STEAM education across schools. This pilot project offers valuable insights for planning future initiatives in this field and demonstrates a commitment to incorporating creativity and innovation into the educational experience. By introducing STEAM to schools, the project aligns well with the MoE's vision for the future, which emphasizes the importance of creativity and innovation alongside traditional STEM subjects.

Alignment

Currently, there is no active education sector plan or policy, as all planning and strategic development activities have been centralized under the Ministry of Planning (MoPIC). The mandate for planning has shifted from individual ministries to this central authority, with all ministries instructed to pause their planning efforts until MoPIC is fully established. [32]The most recent National

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[31] Dropout rates among boys in Palestine are higher than those among girls, with a significant spike occurring at the ages of 15 and 16, when students transition from middle school to high school. This increase coincides with the age at which it becomes legal for boys to work in Palestine, contributing to the higher dropout rates. The expected years of schooling in the West Bank and Gaza reflect this trend, with boys averaging 11.9 years of education compared to 12.5 years for girls. https://documents1.worldbank.org/curated/en/964931648601745329/pdf/West-Bank-and-Gaza-Supporting-an-Education-Reform-Agenda-for-Improved-Teaching-Assessment-and-Career-Pathways-Project.pdf

[32] https://socialprotection.org/connect/stakeholders/palestine-%D9%88%D8%B2%D8%A7%D8%B1%D8%A9-%D8%A7%D9%84%D8%AA%D8%AE%D8%B7%D9%8A%D8%B7-%D9%88%D8%A7%D9%84%D8%AA%D9%86%D9%85%D9%8A%D8%A9-%D8%A7%D9%84%D8%A5%D8%AF%D8%A7%D8%B1%D9%8A%D8%A9-mopad-ministry-planning-and

Education Sector Strategic Plan, which originally covered 2017-2022[33] and was updated in response to COVID-19 in 2020, [34] emphasized digitalization as a key educational development component.

The RiSE project is well-aligned with the strategic plan's Targets 2, 3, and 5, which aim to:

1. Ensure equitable, student-centred learning in all basic schools and enhance educational and scientific skills for all students.
2. Prepare qualified secondary school graduates for higher education and practical life.
3. Strengthen and improve non-formal education to guarantee its quality and sustainability.

A significant contribution of the RiSE project has been its role in sparking discussions within the Ministry, especially with the General Directorate for Education Resources and Technology, to advocate for explicitly including STEM education as a strategic priority. While these discussions have not yet been formalized, there is strong potential for STEM to be recognized and integrated into future strategies, utilizing the experiences and insights gained from this pilot project.

The updated 2020 plan already makes significant strides in recognizing STEM education. It underscores the need to prepare qualified secondary school graduates for higher education and practical life, as well as to strengthen and sustain non-formal education programs. Additionally, Policy Priority 4 within the strategy focuses on improving the quality of general education, emphasizing intervention areas such as developing STEM education and leveraging technology to individualize learning and enhance the transition from teaching to learning. Furthermore, the plan stresses the importance of providing on-site, hands-on training for teachers to effectively conduct science experiments, a focus that aligns closely with the RiSE project's objectives and practices.

JDoE vs. MoE

A significant challenge facing the Fab Labs is the lack of a coherent strategy for integrating them into the existing curriculum. While the MoE is still in the process of defining its approach to STEAM learning, emphasizing design thinking, there is no fully developed strategy to guide the practical use of Fab Labs. The JDoE does not have the mandate or capacity to develop this strategy independently.

Moreover, the project's primary partner was JDoE rather than MoE, indicating that the initiative was not anchored in national policy-making but rather focused narrowly in Jerusalem. Additionally, JDoE, being significantly less resourced compared to the national partner MoE, meant that the project was constrained by more limited capacity and scope. To address these issues, a more integrated approach involving the Ministry's various departments—such as building, training, curriculum, and teaching—would've been beneficial. This would ensure that Fab Labs are better aligned with the Ministry's overall educational strategy and more effectively incorporated into the national school system. As detailed in the effectiveness section, coordinated efforts between MoE and JDoE would facilitate the resolution of outstanding issues and enable the full operationalization of the Fab Labs, maximizing their potential impact on education in East Jerusalem

[33] https://moe.pna.ps/uploads/EDUCATION-SECTOR-STRATEGIC-PLAN-2017-2022-Summary.pdf
[34] https://www.lacs-pmo.ps/public/files/Strategies%20&%20Plans/Education%20Strategies/EN_ESSP%20(Update2020).pdf

3.2.1.2 Public Spaces

Relevant Evaluation Questions:
Q5.1 How feasible are the scalability and adaptability of the semi-public space model to fostering community engagement within the West Bank, considering factors such as resource availability and infrastructure?
Q5.2 Are communities and local organizations interested in utilizing or gaining access to this semi-public space, and are there perceived barriers to facilitate this access?
Q5.3 Are there any mechanisms in place or knowledge products developed or adopted by national partners?

R3's emphasis on public spaces is highly relevant to the needs of Palestinians in East Jerusalem, particularly within the Annexation Wall where the Palestinian Authority lacks power, and the Israeli Municipality often discriminates against and under-serves Palestinian neighbourhoods. Indeed, R3's focus on public spaces not only meets immediate community needs but also addresses deeper issues of identity, resilience, and social justice for Palestinians in East Jerusalem.

Public infrastructure in East Jerusalem is limited, especially compared to West Jerusalem, resulting in a severe lack of open areas for Palestinians to gather and engage in communal activities. Semi-public spaces become critical in addressing this gap, offering a sanctuary for residents to experience a sense of belonging and resilience, which is crucial in a context where their identity is often under threat. These spaces align well with the needs of the targeted communities and civil society organizations, particularly in marginalized areas where Palestinian organizations, buildings, and infrastructure are under constant threat. Substandard buildings face the risk of being underutilized, posing safety hazards, and may be subjected to demands from the Israeli Municipality for changes that local organizations cannot afford, leading to potential closures and takeovers. Moreover, these buildings are continuously threatened by settlers. Therefore, the rehabilitation and continuous utilization of these spaces by Palestinians in their neighbourhoods provide important protection and a sense of ownership for local organizations and stakeholders.

"The JYCF is located on top of the holy natural spring in Wadi Hilweh, which is considered a challenge and a form of resistance against all racist policies and measures of displacement implemented by the Israeli government against Palestinians in Silwan. It is located inside a 200-year-old historic building that was once a mosque…. Few years later, the Forum was established taking the old building as premises for its activities and events with the aim of preserving the historical building which had been targeted through continuous attacks from Israeli settlers after they took over the surrounding buildings."

Given the limited institutional support in East Jerusalem, the focus on semi-public spaces managed by CSOs and NGOs has facilitated high relevance for local communities through rigorous consultation and engagement at the partner level. While not limited to children, CSO representatives have highlighted that these spaces help mitigate the impact of overcrowded and under-resourced schools, providing alternative venues for children to play and learn in a safe environment. These spaces offer a sanctuary for students after school hours to engage in extracurricular activities. Additionally, they serve as places for residents to hold community meetings and events.

"Children in Jerusalem don't have extracurricular activities in schools and finish school at one, organizations like ours provide a safe space for children to participate in activities after school".

"In our organization we also hold activities that enhance the sense of identity".

"Community events and meetings are also often held here".

In summary, public spaces are indispensable for fostering community spirit, providing safe havens for social interaction, and supporting the long-term resilience of the community amidst ongoing political and social challenges. By addressing both immediate and deeper issues, R3's emphasis on public spaces is highly aligned with the needs and aspirations of Palestinians in East Jerusalem.

Communities and local organizations are interested in utilizing and gaining access to semi-public spaces. Key informant interviews with managers of these spaces highlighted a strong interest from local organizations and communities. Currently, these spaces are actively used from early morning until late evening, hosting a variety of activities involving multiple partners and local actors. For example, the JYCF public space supports core NGO activities such as summer camps for children, evening business support activities for women organized by local CBOs, and after-school activities for children and teens. However, there are perceived barriers to accessing these spaces: in J1, the main challenges are the limited size of the space and its daytime use by partner NGOs, while in J2, concerns about overall community safety and security, particularly for women and girls, are the primary barriers.

Outside the Annexation Wall, R3 followed a dual approach, mirroring its focus on CSOs and NGOs inside the Wall. This approach was equally relevant, based on the same rigorous identification process and in-depth one-on-one consultations. However, R3 faced significant challenges in its direct partnerships with municipalities, which hindered its ability to produce tangible results.

Key informants from the program highlighted that efforts to collaborate with local authorities, such as the Ministry of Local Government and the Jerusalem Governorate Office, were largely unproductive. The project previously sought support from the Ministry of Local Government (MoLG) but did not receive the necessary assistance, leading to the conclusion that MoLG would likely be unable to provide meaningful support or resolve project-related issues. Additionally, the project adopted the perspective that MoLG and the Governorate of Jerusalem have limited governing authority in East Jerusalem, making partnerships with them less beneficial for achieving project objectives. Consequently, the project team had to work independently with the EU, identifying and selecting sites based on opportunities presented by a small list of municipalities (local government units).

From a relevance perspective, R3 encountered challenges related to appropriateness and alignment with national frameworks and priorities.

- Limited consultation at the national level was constrained, leading to insufficient consultation with key stakeholders and decision-makers. This limited dialogue prevented R3 from fully understanding and aligning with national development priorities and strategies.
- The lack of an institutional partner and a formal governing structure posed significant challenges. Without a designated partner to guide and support the project, R3 struggled to navigate regulatory requirements, coordinate effectively, and ensure accountability.
- R3's activities were not explicitly aligned with national priorities and plans, which are essential for ensuring coherence and integration into broader development frameworks. This disconnect hindered the program's ability to implement some of its activities and to contribute meaningfully to national development goals.

Box 1: Highlight: The Case of Zaa'em Municipality and the RiSE Project

Outside the Annexation Wall, Palestinian municipalities under the Ministry of Local Government (MoLG) have authority over Areas A and B, supported by national mechanisms and funding from both national and international sources. While MoLG and the municipalities it oversees face restrictions and sometimes even attacks when operating in Area C, they have nonetheless played a vital role in facilitating the work of numerous projects and partners in this area. These municipalities are crucial to local governance and development planning within their respective jurisdictions, contributing significantly to the overall development efforts.

In the case of Zaa'em Municipality, the RiSE project proposed the establishment of a public stop along the main road after thorough consultations to assess local needs. However, RiSE encountered substantial obstacles, and the Municipality was unable to foster buy in from certain actors who didn't have any legal claim over the agreed-on space. The Ministry's resources and capacities are much larger and could have exerted top -bottom pressure to facilitate solutions.

The Municipality's inability to effectively address issues and its limited accountability to external partners like RiSE, compared to its obligations to the national governing ministry, resulted in the project being re-programmed.

Addressing these challenges would have required a more robust approach to stakeholder engagement, establishment of clear governance structures, and alignment with national development frameworks. By enhancing consultation processes, establishing strong partnerships, and ensuring alignment with national priorities, R3 could have better positioned itself to achieve sustainable impact and mitigate the risks associated with governance, legal, technical, programmatic, and operational frameworks.

3.2.2 Coherence

RiSE proactively sought synergies with ongoing projects to address the needs of students and communities in East Jerusalem, enhance complementarity with other programs, and maximize impact. The project was developed in parallel with, and in a manner that complemented, another EU-supported project implemented by the Italian NGO TDH. It was also closely aligned with larger initiatives within Enabel, such as the "Schools 4" project, which focuses on rehabilitating schools. Notably, the project's Fab Lab components are considered pioneering, sparking important conversations around STEAM education and the new "STEAM Labs" that the Ministry intends to roll out with World Bank funding.

The project leveraged Belgium's experience with Fab Labs, incorporating elements of this knowledge through exposure and knowledge-sharing facilitated by both the project and the Ministry of Education (MoE). Synergies between the diverse and multisectoral outcomes of the project were actively pursued. For instance, while R3 does not focus on education, partnering with CSOs working with children or near schools maximized coherence and impact.

However, Enabel was not always able to leverage win-win relationships. The project had a selective partnership with the MoE that focused on governing and guiding R1 but also had spillover effects on R2. A review of meeting minutes indicates that the Buildings Department and the Jerusalem Directorate of Education (JDoE) were primarily involved in steering committee meetings, without direct involvement from the STEAM unit. Conversely, all consultations at the MoE level were

conducted with the General Directorate for Education Resources and Technology. As one member of the steering committee stated, "We were informed of what is happening in the Fab Labs, but we were not consulted and didn't have a role in steering it."

Project representatives emphasized that the content and specifics of Output 2 (R2) were primarily discussed during the Fablab Core Group meetings.[35] These meetings brought together various departments of the Ministry of Education (MoE), including training, curriculum, equipment, activities, and IT departments, as well as staff from the Jerusalem Directorate of Education (JDoE). Facilitated by Enabel through the RiSE project, these sessions served as a collaborative platform where all deliverables, such as the design of Fab Labs, equipment lists, curricula, and textbooks, were thoroughly discussed. The Directorate General (DG) of Buildings who sets at the helm of the Steering Committee for the Project had only marginal involvement, as the discussions were not focused on building-related matters.

"RiSE project, as will RiSE II project be, is more multi-faceted and would indeed benefit from a multi-department steering committee, as is the case of SO1/QEL project in the ongoing bilateral portfolio." [36]

The existing partnership with JDoE was not the project's primary choice but was deemed sufficient for R1 and R2. Working with JDoE instead of MoE led to resource challenges and delays, limited buy-in from the entire Ministry, and missed opportunities. Future projects need to better manage the limited engagement and competition between JDoE and MoE.

"This was caused by Enabel being prevented from collaborating directly with the Ministry of Education by the Belgian Government, following the school naming issue. Under the current circumstances, this should not happen anymore for RiSE II project, who shall benefit from the same level of anchorage as SO1/QEL project. Notwithstanding the political issues and associated constraints, RiSE team managed to keep a close relationship thanks to informal contacts with technical staff from all departments." [37]

The multi-sectoral nature of the project was generally manageable, especially given the infrastructure focus and the leadership of the infrastructure team. However, this resulted in two areas for improvement:

- The project lacked a national partner for R3 and attempts to foster local government partnerships were unsuccessful. As a result, R3 lacked a governance body and was effectively governed by Enabel and the EU, with all final decisions and changes regarding focus and location identification made independently by the EU and Enabel without input from national or institutional partners.
- The project approach limited the linkages between the project's content (resilience, education, and the environment) and the developed infrastructure or delivered equipment.

[35] Although Key informants confirmed that the FabLab Core Group played a crucial role in the project's success, it lacked an official mandate or structure, and no attendance sheets, meeting minutes or formal agreements were documented or maintained.
[36] Key informant.
[37] Key informant

Finally, the collaboration between RiSE and TDH was positively viewed and considered worth replicating and expanding. Enabel's initiative and the "Ta'lim lil-Jami'a: Inclusive Education Intervention for East Jerusalem Children" by Terre des Hommes (TdH), funded by the EU East Jerusalem Programme—were conducted. Both projects aimed at fostering collective artwork and environmental activities. The project achieved significant gains in efficiency by adopting the TDH approach and extending it to schools not benefiting from TDH but only from RiSE. Consequently, the soft components focused on the environment and greening of schools through EU funding reached a much wider number of schools. These strategic decisions demonstrated the project team's resourcefulness and ability to deliver and overcome challenges.

3.2.3 Effectiveness

Despite many hindering factors the project, especially as it related to the infrastructure outputs, under R2 and R3 were delivered with a large degree of successes.[38] Soft components related to R2 such as teacher training, curricula development, and facilitating operation of the Fab labs have had more limited successes Similarly, under R3 The scope of this evaluation focuses on R2 and R3, building on previous findings. For more information on how R1 contributed to this general objective, please refer to the Mid Term Evaluation Section 4.1.3 on Page 29 discussing the effectiveness of R1.

3.2.3.1 R2 and R3 Activities and Their Contributions

The activities carried out under R2 and R3 have significantly contributed to strengthening the resilience of the community in East Jerusalem by improving access to education and school infrastructure. It's important to recognize that this initiative was a pioneering pilot project with a learning curve for all stakeholders, including Enabel, the Ministry, JDoE, teachers, and schools. The project faced the reality of lacking sufficient technical expertise in education, yet despite this, managed to deliver labs that are now almost fully operational, estimated to be over 80% complete. Resolving the handover issue and making minor adjustments will help finalize the setup and ensure their full functionality. Moreover, the project demonstrated resilient management and adaptability by shifting its focus from public spaces to semi-public spaces. The original vision was challenging to implement in the context of East Jerusalem, especially in J1 under the Israeli Jerusalem Municipality's constraints. Nevertheless, the project showed innovation and flexibility by adapting its approach to semi-public spaces, ensuring continued progress toward its objectives.

Relevant Evaluation Question:
Q1: To what extent has the intervention already contributed or it is likely to contribute to reaching its objectives? What were the success factors? What were the challenges encountered?

R2

The Fab Labs in East Jerusalem schools are equipped with state-of-the-art technology, including 3D printers, CNC machines, interactive smart boards, basic robotics kits, and a variety of fabrication tools. As already mentioned under "Relevance", these resources align well with the MoE's vision of

[38] This section focuses on the effectiveness of project delivery and assesses whether the project successfully achieved its intended outputs. The following section on impact will explore in greater depth the positive and negative effects of these outputs and how they have contributed to the project's stated objectives.

fostering creativity, design thinking, and the application of theoretical concepts. It also supports their approach to shift from STEM to STEAM.

The number of extracurricular activities conducted has been limited, namely due to the handover issue. Nonetheless, two summer camps, one supported by Enabel and one supported by UNDP, have utilized the space but not the equipment. UNDP conducted activities under its “Mission to Mars” activity and utilized the Fab Lab at Al Sheikh Saad Boys School. Enabel supported a summer camp at Al Aqsa School which also utilized the Fab Lab there. There are several success factors and challenges encountered these are detailed below:

Infrastructure and Equipment

According to the Year 4 Annual Report, "The list of furniture and equipment for each Fab Lab was finalized in close coordination with the MoE, who will be using this list as a new standard for all other schools in Palestine." Indeed, under R2 the project managed to exceed its target of delivering 7 Fab Labs and in reality, also provided Fab Lab equipment and consumables to College des Freres. The project also supported the development of a fully equipped Fab Lab at the Jerusalem American School. In addition to establishing the Fab Lab, the project provided a substantial reserve of consumables to ensure the equipment's operability over an extended period, enhancing the sustainability and long-term functionality of the facility.

There are 52 schools under the jurisdiction of the JDoE in East Jerusalem, both outside and inside the wall. Of these, 8 schools already had some form of technology labs and TVET units prior to the RiSE project. The project successfully benefited an additional 7 schools by providing Fab Labs and technological equipment, effectively increasing the technological offerings by 13%, which significantly exceeds the original goal of a 2% increase. Starting from a baseline where 8 schools (15.4% of JDoE schools) had technological capabilities, the project has now expanded this reach to 29% (15 out of 52 schools), surpassing the initial target of 17.4%. Indeed, 15 schools or 29% of JDoE schools now have some capacity to offer STEM classes and utilize technological and fabrication tools in their teaching, marking a substantial improvement in access to education.

Despite the high expectations surrounding Fab Labs, their actual utilization has been minimal, making it difficult to assess indicators related to student participation in activities and linking learning to daily life in East Jerusalem Directorate Schools, with a target increase of 2%. Several factors have contributed to this limited use, including the incomplete setup of the labs. Moreover, multiple schools reported that they won’t be able to use the woodburning laser machine due to unresolved infrastructure issues, such as the need for ventilation holes for CNC machines.[39] Lastly, the lack of Arabic manuals for the equipment has reportedly made it more challenging for teachers to learn and operate the machines effectively. Addressing this issue by providing resources in Arabic would significantly enhance teachers' ability to confidently use the equipment and integrate it into their teaching practices.

Official and Coordinated Handover

In an email sent on May 6, the JDoE has directed schools not to use the Fab Labs until further notice. Key informants from the Ministry, JDoE, Enabel, and school representatives provided differing perspectives on the reasons behind this directive. According to the Ministry, the official handover of

[39] Given that these are new labs, the standards and technical solutions are being developed through a consultative, iterative, "learning by doing" process involving all stakeholders.

the Fab Labs has not been completed, requiring a technical committee from the Ministry to sign off on the project. When asked, JDoE indicated that the labs would be utilized at the beginning of the school year and that the "final steps" to ensure their use are currently being taken. Enabel stated that the handover of the Fab Labs has been finalized. Schools reported that, to date, no one from JDoE or the Ministry has come to inspect the equipment received against the receipts provided to the schools, and that they are unlikely to be able to start using the labs before this step takes place. This discrepancy in views emphasizes the point raised by Enabel about the limited capacity of JDoE and highlights the need for involving the MoE in its full capacity to ensure coordinated efforts to resolve outstanding issues and facilitate the full operationalization of the Fab Labs.

Training

The training program aimed at equipping teachers with skills in digital design and design thinking revealed several crucial insights. The program, conducted by Al Nayzak, was intended to familiarize teachers with Fab Labs and their potential applications in education. Teachers received a two-day training. Day one focused on the theoretical aspects of digital design (design thinking) and the second day focused on the use of the machines in the Fab Lab. The feedback from participants highlighted significant gaps and areas for improvement.

The Training provided was described as partial, rushed, and inadequate, focusing more on introducing the machines rather than offering comprehensive hands-on experience. Teachers have called for more extensive, ongoing training sessions that fit within their teaching schedules. They suggest that training should be conducted during the school year, with practical applications that can be completed in one to three 45-minute classes. This would enable teachers to gain the necessary skills and confidence to integrate Fab Labs into their lesson plans effectively.

Without proper training, teachers may feel unprepared to integrate the Fab Labs into their lessons, which can limit the labs' impact on student learning. Providing teachers with the necessary guidance and support would empower them to effectively use the Fab Labs, thereby enriching the educational experience for students. Indeed, teachers and school principals are uncertain about how to incorporate Fab Labs into their teaching plans, particularly in schools that primarily offer humanities streams. This uncertainty is compounded by the fact that many teachers feel inadequately prepared to use the advanced technology available in the labs. According to project representatives' additional trainings are planned and will likely take place in the near future.

Curriculum

The curriculum materials developed for the Fab Labs have not been officially adopted or shared with teachers, leading to a disconnect between the labs' potential and their actual use in the classroom. The developed curriculum is not adopted by the Ministry nor were the teachers directly trained on it. The effectiveness of the project could be enhanced significantly if the developed curriculum is adopted by the Ministry and teachers are trained on it. Currently, the absence of official adoption means that the curriculum is not being utilized to its full potential, leading to a gap between the Fab Labs' educational capabilities and their actual application in classrooms.

While a comprehensive analysis of the developed curriculum materials would require a dedicated effort, the evaluator reviewed various samples, revealing that some materials are incomplete. Notable issues include unfinished translations and the presence of English text within Arabic materials. Furthermore, the curriculum spans hundreds of pages, making it impractical for coverage within a two-day training session. Additionally, the current curriculum was developed by external consultants rather than through Ministry of Education (MoE) resources and leadership, which has

contributed to its lack of official status. For it to evolve into a relevant and officially endorsed curriculum, a more extensive engagement and collaboration with the MoE is needed. While the existing materials can provide a valuable foundation, in their current state, they remain an unofficial resource rather than a fully developed curriculum.

By adopting the curriculum and offering comprehensive training, the project can better align with its goals of enhancing STEAM education and fostering practical skills among students. This approach would maximize the Fab Labs' potential, ensuring they become a valuable and fully integrated part of the school curriculum.

Relevant Evaluation Question:
Q1.1: Have the Fab-Labs contributed or are likely to contribute to enhancing 21st skills among students within the Palestinian Contexts, if so, how? Which are the facilitating or hindering factors?

Box 2: The effect of Fab Labs on Palestinian students and the main challenges.

The Fab Labs have the potential to significantly contribute to enhancing 21st-century skills among students within the Palestinian context. These skills include critical thinking, creativity, collaboration, communication, and digital literacy, which are essential for success in today's rapidly changing world. Here's how the Fab Labs can contribute to these skills, along with the facilitating and hindering factors:

Contributions to Enhancing 21st -Century Skills

1. **Critical Thinking and Problem-Solving:**
    - **How**: Fab Labs provide a hands-on learning environment where students can engage in project-based learning. This encourages them to think critically and solve complex problems through experimentation and iteration.
    - **Facilitating Factors**: The availability of advanced technology and tools like 3D printers, laser cutters, and CNC machines that allow students to design, prototype, and test their ideas.
    - **Hindering Factors**: Limited access to the labs due to operational issues and insufficient training for teachers, which hampers effective utilization.
2. **Creativity and Innovation:**
    - **How**: Fab Labs offer a space where students can explore their creativity by designing and building unique projects. This fosters an innovative mindset and encourages out-of-the-box thinking.
    - **Facilitating Factors**: A wide range of materials and tools that support diverse creative projects and the freedom to experiment without fear of failure.
    - **Hindering Factors**: Inadequate curriculum integration and lack of structured guidance can limit the creative potential of students.
3. **Collaboration and Communication**:
    - **How**: Working in Fab Labs often requires teamwork and collaboration on projects, which helps students develop interpersonal and communication skills.

- **Facilitating Factors**: The collaborative environment of Fab Labs, where students can work together, share ideas, and receive feedback from peers and mentors.
- **Hindering Factors**: Scheduling conflicts and the directive from the JDoE not to use the labs until further notice can reduce opportunities for collaborative work.

4. **Digital Literacy and Technological Proficiency**:

- **How**: Fab Labs equip students with practical skills in using advanced digital tools and technologies, preparing them for the digital economy.
- **Facilitating Factors**: Exposure to cutting-edge technology and software used in design and manufacturing processes.
- **Hindering Factors**: The absence of Arabic manuals for the equipment and insufficient training for teachers can limit students' ability to fully leverage the available technology.

Facilitating Factors

- **Advanced Equipment and Technology**: The presence of state-of-the-art fabrication tools and digital design software.
- **Hands-On Learning Environment**: The experiential learning approach encourages practical problem-solving and innovation.
- **Supportive Infrastructure**: Well-resourced labs that provide a conducive environment for creativity and collaboration.

Hindering Factors

- **Operational Challenges**: Inoperability of equipment, incomplete setup, and physical setup issues such as the need for ventilation holes for CNC machines.
- **Training and Curriculum Integration**: The developed curriculum is not adopted by the Ministry, and teachers have not been adequately trained, leading to a disconnect between the labs' potential and their actual use in the classroom.
- **Administrative and Logistical Barriers**: Directives from the JDoE preventing the use of the labs until further notice and the lack of a coherent strategy for integrating Fab Labs into the existing curriculum.

Soft Components of R2

Relevant Evaluation Questions:
Q8: Has the project managed to integrate the environmental issues into the implementation, among other things through environment awareness activities and the use of the environment friendly materials or design features?
Q8.1: To what extent have environmental awareness activities been integrated into project implementation to educate stakeholders about environmental issues and promote sustainable practices? (Focus on awareness activities effectiveness)

In an effort to enhance educational quality and reduce high dropout rates among students in East Jerusalem, two parallel projects—Enabel's initiative and the "Ta'lim lil-Jami'a: Inclusive Education Intervention for East Jerusalem Children" by Terre des Hommes (TdH), funded by the EU East

Jerusalem Programme—were conducted. Both projects aimed at fostering collective artwork and environmental activities.[40]

3.2.3.2 Project Goals and Coordination

The TdH project focused on soft components, emphasizing inclusive education interventions. Meanwhile, Enabel's RiSE project, although primarily focused on hard components, included some soft components to complement TdH's efforts. To maximize coverage, RiSE funded activities similar to those implemented by TdH in different schools.

3.2.3.3 Environmental Initiatives

Enabel in Palestine collaborated with "Terre des Hommes Italy" and the Palestine Institute for Biodiversity and Sustainability to create animated movies on six environmental topics. These animations addressed critical issues such as climate change, green energy, and biodiversity maintenance, aiming to mobilize youth to take action for environmental conservation.

3.2.3.4 Dissemination and Impact

The soft components of the project included the creation of promotional videos and an environmental brief, both in English and Arabic. The Arabic versions of the environmental promotional videos received over 200,000 views, indicating a high level of dissemination and engagement.

However, there were challenges in adopting and disseminating some of the project's outputs. The environmental awareness booklet titled “Our Gardening and Environmental Awareness Journey” was not adopted by any official body, resulting in limited dissemination. Challenges in adoption and dissemination, highlighting the need for better strategies to integrate such materials into official educational frameworks.

Table 2: Description of the promotional videos

Name of the video	Date posted	Number of views English	Number of views Arabic	The Link
Climate Change	Nov 16, 2021	575	163,762	https://www.youtube.com/watch?v=tKTUIHJVIAk&list=PLV-ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=7
Agriculture	Nov 16, 2021	270	1,116	https://www.youtube.com/watch?v=i9EA1UJdEM0&list=PLV-ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=8
Biodiversity	Nov 16, 2021	215	35,125	https://www.youtube.com/watch?v=xZ8uKiZkhhM&list=PLV-

[40] The project design has incorporated synergies between the mainstreaming of environmental and digitalization themes. While the "Digital Media for Environmental Awareness" sub section analyses these aspects from a digitalization perspective (refer to that section for more details), this section will concentrate on the mainstreaming of environmental themes and explore how they create synergies with other initiatives within the project.

				ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=9
Waste and chemicals	Nov 16, 2021	776	895	https://www.youtube.com/watch?v=-9WIHykZ9T8&list=PLV-ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=10
Energy and Transportation	Nov 24, 2021	346	10,123	https://www.youtube.com/watch?v=drrc2T1h5O4&list=PLV-ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=11
Geography	Nov 16, 2021	276	3,741	https://www.youtube.com/watch?v=OIpK-Oz1SFk&list=PLV-ANVoeAbOZVrpHNYJA5KzTV6fT6coOC&index=12
Total		**2,458**	**214,762**	

3.2.3.5 Digitization

Q9: To what extent has the project managed to integrate and contribute to foster digitalization agenda? (R2 and R3)

Q9.1: How extensively has the project incorporated digitalization initiatives into its activities, such as the use of digital tools or platforms for educational purposes or project management? (Focus on digitalization integration) (R2 and R3)

Q9.2: To what extent has the project contributed to enhancing digital literacy among students, teachers, and community members through training programs or access to digital resources? (Focus on digital literacy promotion)

The RiSE project has made strides in integrating digitalization initiatives into its activities, particularly under Result 2 (R2). The project's efforts in incorporating digital tools and platforms are evident in various aspects of its implementation.

Students' Digitalization Integration: The RiSE project has effectively integrated digitalization into its activities through the creation of Fab-Labs in several schools, equipped with modern digital tools to enhance STEAM skills. These labs provide students with hands-on experience using advanced digital fabrication tools. Additionally, comprehensive teacher training has been implemented to ensure educators can effectively utilize these tools, enhancing the overall learning experience. The project has also established a STEAM curriculum, setting new standards for digital literacy in schools and preparing students for future careers in technology and engineering.

Enhancing Digital Literacy: The project has enhanced digital literacy among students and teachers by establishing Fab-Labs and implementing comprehensive training programs. The Training-of-Trainers program, developed in collaboration with Al-Nayzak organization, included a competency-based curriculum and a detailed list of necessary equipment and consumables for the Fab-Labs. Additionally, the project provided these labs with essential tools, consumables, and electronics, with final IT equipment procurement planned for delivery in late 2023.

Digital Tools in Education:

The establishment of Fab-Labs is a central element, providing students with access to advanced technological tools and fostering skills in areas such as 3D printing and digital fabrication. The

integration of these labs into the educational curriculum is supported by comprehensive teacher training programs. The Annual Report 3, p. 17 notes, "The spaces for the 7 Fab-Labs have been identified and prepared. Procurement of furniture and equipment is ongoing, and delivery planned to start in August 2022".

The project has extensively incorporated digitalization initiatives into its activities under Result 2. The establishment of STEAM labs in three secondary schools is a significant step towards integrating digital tools into the educational process. These labs are equipped with advanced technological equipment such as 3D printers, CNC milling machines, and laser-cutting machines, which are used for creating artworks and other projects. This integration not only fosters creativity and practical skills among students but also prepares them for the 21st-century job market.

Quote: "This output will introduce and/or further promote the use of new technologies of computer-controlled manufacturing, such as 3D printing, CNC milling or carving machines or laser-cutting machines, which offer one of the best examples of how art and design can be combined with STEM and how theoretical reasoning can be combined to practical and manual activities." (Specific Agreement Annex I).

Digital Media for Environmental Awareness:

The project has utilized digital platforms to raise environmental awareness among students and the community. "In 2022, 6 animation movies on environmental topics; Climate change, Geography, Biodiversity, Energy & Transportation, Agriculture and Waste & Chemicals were produced in partnership with Terre des Hommes, The Palestine Museum of Natural History, The Bethlehem Institute of Biodiversity and Sustainability and animation studio 3Dstudios" as per the Annual Report 4, p. 24). These digital resources are accessible online, providing a modern and engaging way to educate the community about environmental issues.

The use of digital media for environmental awareness campaigns is a notable example. The production and dissemination of animation movies on environmental topics leverage digital tools to educate and engage the community. This approach not only enhances the reach of the project's educational efforts but also integrates digital literacy into the community's daily life. The Annual Report 3, p.8 states, "To raise the awareness of the public on the retrofitting, rehabilitation and extension works carried out in the schools, contribute to give a new image and increase enrolment in the Waqf schools, promotional videos have been produced for 5 of the schools, showcasing the works and activities carried out".

While the primary focus of Result 3 is on creating semi-public spaces, there is a noteworthy integration of digital tools in the planning and design phases. The project involves community workshops where digital tools and platforms are used to design and conceptualize these spaces, and this participatory approach ensures that the community is actively involved in the process, leveraging digital tools to visualize and plan the spaces effectively.

"The participative process will include at least two sessions per school, the first where some or all of the students will participate in defining the needs and make proposals and the second where the consultants will present the selected design options for potential feedback", as highlighted in the Specific Agreement Annex I.

R3

Relevant Evaluation Questions:
Q1.4: Have the semi-public spaces contributed or are likely to contribute to building a sense of community and belonging among the residents? If so, how? Which is the facilitating or hindering factors?
Q1.5: Have these semi-public spaces contributed at providing a safe and engaging environment for socialization, sports, and recreational activities for the targeted demographic? If so, how? Which are the facilitating or hindering factors?

The project showcased significant adaptability and commitment, achieving substantial results in rehabilitating semi-public spaces and enhancing community resilience despite facing numerous challenges.

Initially, the project aimed to secure municipal investment in East Jerusalem through a partnership with Bimkom, an Israeli rights-based NGO. Despite their efforts, this strategy did not yield the intended results. The project then hired a consultant to identify suitable locations and assess needs. The consultant didn't manage to deliver. The project team showcased unyielding commitment and demonstrated a high level of adaptability, when they chose to take it upon themselves to do this work instead of the previous arrangements.

Box 3: Risks associated with working with the Jerusalem Municipality

Both direct and indirect engagement with the municipality of Jerusalem poses significant risks at the political and social levels. Directly engaging with the Jerusalem municipality endangers Belgium's relationship with the Palestinian Authority (PA) and with Palestinians at large. Indirect efforts to involve the municipality in conducting projects in marginalized neighbourhoods like Shu'afat are likely to cause social unrest and violent clashes. Such actions may also create social tensions locally for national staff and pose significant reputational risks for Enabel that can go as far as boycotting. Any cooperation with the Jerusalem Municipality may be perceived as supporting the settler, colonial, and discriminatory policies the municipality follows to displace the Palestinian population from these neighbourhoods. The only Palestinian mechanism available for engagement in East Jerusalem is the Palestinian Governor of Jerusalem and the Ministry of Jerusalem Affairs, who lacks real power to plan and implement infrastructure projects.

The project aimed to create 5 to 6 semi-public spaces as outlined in Amendment 2, Output 3. The project successfully created 6 semi-public spaces, facilitating the participation of thousands of people, including many students. The shift in focus from public spaces to semi-public spaces, as outlined in Amendment 2 and later agreements and progress reports, indicates a strategic adaptation of the project to better align with emerging challenges or opportunities. These semi-public spaces included community centres, sports clubs, and have been vital in fostering community engagement, recreation, and educational activities, contributing significantly to the local community's resilience.

The project's adaptability and perseverance were crucial in achieving success. However, several hindering factors impeded the project's full effectiveness. Identifying suitable spaces and verifying ownership and legal rights (land deeds) proved challenging and delayed progress. Additionally, fostering community buy-in and dealing with opposition from individuals further complicated the implementation process. The absence of an institutional partner, particularly for the public space component, also limited the project's ability to achieve its full potential.

Despite not completing all planned public and semi-public spaces, the project's success in creating 5 semi-public spaces demonstrates a significant achievement. These spaces have facilitated community participation and engagement, benefitted thousands of people and enhanced community cohesion. The project's experience underscores the importance of securing strong institutional partnerships to support public space components, developing robust strategies for community engagement, streamlining legal and ownership verification processes, and maintaining flexibility in project planning and execution.

Table 3: The status of the planned public spaces

Name	Space	Location	Type of Partner	Type of Location
College des Freres de la Salle -Beit Hanina	Done	Inside Beit Haninia	Private School	Semi Public
Zaayem Park	Not moving forward, neighbours and municipality issues	Outside Zaayem	Zaayem Municipality	Public
Al Quds University	Final Stages	Inside. Beit Hanina	Al Quds University	Semi Public
Silwan Terrace	not moving forward, neighbours and municipality issues	Inside Silwan	Al Bustan	Semi Public
Silwan Playground	Done	Inside Silwan	Jerusalem Youth Cultural Forum	Semi Public
Al Bustan Public Space	Done	Inside Silwan	Tent	Semi Public
Nabi Samuel Park	Not moving forward, landowners issue over the school land	Inside Nabi Samuel	Nabi Samuel School	Semi Public
Al Ezariyeh Playground	Final Stages	Outside Ezariyeh	Ezariyeh Youth Club	Semi Public
Sharafat	Not done, Bimkom an Israeli organizations couldn't attract Israeli designers to participate in the tender	Inside Sharafat		Public

Nithamiyyeh	Done	Inside Shuufat	School	Semi Public

Q7: Has the project managed to integrate the gender issues into the implementation, notably regarding adolescent boys, identified as a specifically vulnerable group across the Palestinian Territory? (R2 and R3)

R2: Fab-Labs

The project has made notable efforts to integrate gender issues, particularly focusing on adolescent boys, identified as a vulnerable group in the Palestinian Territory. The project description highlights the vulnerability of adolescent boys in East Jerusalem, characterized by high dropout rates and increased violence and vandalism in schools.

Focus on Boys: The project specifically targeted adolescent boys, who are vulnerable to dropping out of school, by engaging them in the rehabilitation process and STEAM activities to foster a sense of ownership and reduce dropout rates (Specific Agreement Annex I, p. 33).

R3: Semi-Public Spaces

The project has also integrated gender issues in the creation of semi-public spaces, ensuring that these spaces are inclusive and accessible to all genders, including adolescent boys.

Inclusive Spaces: The design of semi-public spaces considered the needs of all genders, ensuring that these spaces are inclusive and accessible to both boys and girls.

Q7.1: To what extent have gender-sensitive approaches been incorporated into project activities to address the specific needs and challenges faced by adolescent boys, particularly regarding access to education and participation in project initiatives? (Focus on gender mainstreaming effectiveness) (R2 and R3)

R2: Fab-Labs

The project has incorporated gender-sensitive approaches to address the specific needs and challenges faced by adolescent boys. The creation of Fab-Labs and the focus on technology and design activities were specifically aimed at engaging boys, who are more likely to drop out of school, thereby addressing their specific needs and challenges. The report states, "The STEAM approach was found to be in high demand within the Palestinian educational architecture: the programme fully met such a demand" (MTR Report, p. 10).

R3: Semi-Public Spaces

The participatory design process for semi-public spaces included input from both boys and girls, ensuring that the spaces meet the needs of all genders. The report states, "The participatory process is purposely designed to increase the sense of ownership from the students" (Specific Agreement Annex I, p. 28).

Q7.2: How effectively have gender-specific vulnerabilities of adolescent boys been identified and addressed within project interventions, such as through targeted support or resources? (Focus on vulnerability assessment and response) (R2 and R3)

The project has effectively identified and assessed the vulnerabilities of adolescent boys in Palestine, particularly in East Jerusalem. Boys in this region face numerous challenges that increase their likelihood of dropping out of school. The socioeconomic and political context, compounded by limited access to quality education, often results in higher dropout rates among boys compared to girls.

Moreover, Palestinian students, especially those who are vulnerable, are less likely to pursue scientific streams or obtain formal Technical and Vocational Education and Training (TVET). The lack of resources, career guidance, and exposure to scientific and technical fields contributes to this trend, limiting their opportunities for better employment and income.

Recognizing these challenges, the project has taken significant steps to address these issues by increasing exposure and access to scientific and technical education. The establishment of Fab-Labs in schools across the region has been a pivotal intervention. These labs provide students with hands-on experience in digital fabrication tools such as 3D printers, CNC machines, and laser cutters, fostering interest and skills in Science, Technology, Engineering, Art, and Mathematics (STEAM).

By integrating these labs into the educational curriculum and providing comprehensive teacher training, the project ensures that students receive quality education that is both engaging and relevant to the demands of the 21st-century job market. The STEAM curriculum developed in coordination with the Ministry of Education (MoE) serves as a new standard for schools, promoting digital literacy and practical skills among students.

Additionally, the project has emphasized environmental awareness through the production and dissemination of digital media. Animation movies on topics such as climate change, biodiversity, and sustainable energy have been produced in partnership with various local and international organizations. These resources are not only educational but also aim to increase buy in from students to inspire students to consider careers in environmental sciences and related fields.

Through these initiatives, the project has significantly increased the exposure of Palestinian boys to the possibilities of following scientific and technical streams. This exposure is crucial as it opens up pathways to careers where they are more likely to find jobs and gain better income. By addressing the vulnerabilities of adolescent boys and promoting scientific and technical education, the project contributes to their overall development and future prospects, fostering a more skilled and resilient workforce in Palestine.

Q7.3: What measures have been taken to ensure the meaningful participation and representation of adolescent boys in project decision-making processes and activities, and how successful have these measures been in promoting their empowerment and inclusion? (Focus on participation and empowerment) (R2 and R3)

R2: Fab-Labs

Measures have been taken to ensure the meaningful participation and representation of adolescent boys in project decision-making processes and activities. Boys were actively involved in the design and implementation of school rehabilitation projects, promoting their sense of ownership and empowerment. The Annual Result Report 4 highlights, "Several activities aimed at increasing their sense of ownership of the school premises were organized. Some simple collective artworks were integrated during the rehabilitation works and planting activities in the school allowed students to grow their own vegetables and develop a positive energy dedicated to caring."

R3: Semi-Public Spaces

The project ensured the participation of adolescent boys in the design and use of semi-public spaces through community workshops. This involvement has promoted their empowerment and inclusion in community activities, fostering a sense of belonging and responsibility. The report highlights, "Boys participated in community workshops to design semi-public spaces, ensuring their voices were heard and their needs were addressed, which promoted their empowerment and inclusion" (Specific Agreement Annex I, p. 28).

3.2.4 Impact

Q1.2: Have the fab-labs already shown measurable impacts on students' engagement in STEAM subjects and project-based learning?
Q1.3: Were the fab-labs successful in fostering innovation, creativity, and critical thinking skills among students? If so, how? Which is the facilitating or hindering factors?
Q6.2: Can any spill-over effects be identified? (R2 and R3)

R2

The Fab labs have not been utilized to date. Limiting the capacity of the evaluator to evaluate the effectiveness of the labs and the provided equipment. This underutilization stems from several factors, including the lack of an official handover, incomplete setup, and insufficient teacher training. The factors that hindered delivery are discussed in the effectiveness section while the below focuses R2 and R3 impact on students, schools, and communities.

As of now, the Fab Labs have not shown measurable impacts on students' engagement in STEAM subjects and project-based learning. This is primarily because the labs have not yet been fully operational or utilized. Due to ongoing issues such as incomplete setup, technical problems with the equipment, and delays in official handover, the Fab Labs have not been accessible to students. Consequently, there has been no opportunity to assess their impact on student engagement and learning outcomes. Once these issues are resolved and the labs are fully operational, a more accurate evaluation of their effects on STEAM engagement and project-based learning can be conducted.

Fab Labs serve as creative spaces equipped with fabrication tools such as 3D printers, laser cutters, and CNC machines. These labs provide hands-on learning opportunities for students, fostering skills in science, technology, engineering, arts, and mathematics (STEAM). Access to Fab Labs can stimulate students' interest in these fields and enhance their educational and life outcomes. By providing a practical, engaging learning environment, Fab Labs help students develop critical thinking, creativity, and technical skills that are essential for future success.

Soft Components: Greening and Art Activities

Soft components related to greening and art activities at schools have engaged students in school enhancement projects, fostering a sense of ownership and responsibility. This engagement has strengthened student ties to their schools, potentially leading to better retention rates and making the schools more appealing to students. These projects contributed to creating a positive and inviting school environment, which is critical for student engagement and success. Engaging school staff responsible for these spaces would be highly beneficial, as it allows them to learn from experts and continuously collaborate with students on enhancing these environments. Additionally, it provides students with ongoing opportunities to contribute to improving their schools beyond the initial project.

R3

Q1.4: Have the semi-public spaces contributed or are likely to contribute to building a sense of community and belonging among the residents? If so, how? Which is the facilitating or hindering factors?
Q1.5: Have these semi-public spaces contributing at providing a safe and engaging environment for socialization, sports, and recreational activities for the targeted demographic? If so, how? Which is the facilitating or hindering factors?
Q6.2: Can any spill-over effects be identified? (R2 and R3)

While R3 does not have a strictly education-focused objective, RiSE resources were utilized to ensure that educational infrastructure is optimized. This was particularly evident in key informant interviews (KIIs) with CSOs, which highlighted the importance of these spaces in the context of fiscal crises facing the Palestinian Authority (PA). These crises have implications on limiting school time and face-to-face classes, making these rehabilitated spaces and activities crucial for students and communities. They help address learning loss and provide essential support for after-school activities.

The rehabilitation of public and semi-public spaces has created additional learning environments, offering safe and conducive areas for extracurricular activities, workshops, and community events. Multiple civil society organizations (CSOs) have reported conducting various activities in these spaces, including educational programs like English classes. These spaces also act as safe hubs for students to engage in quality activities after school hours, providing essential resources for both formal education and informal learning. Many of these rehabilitated spaces have targeted educational institutions such as College de Ferrers or Al Quds University, as well as organizations that facilitate formal and informal learning activities. This focus ensures that educational infrastructure is maximized, even in challenging fiscal contexts.

Investing in semi-public spaces ensures the continuity and protection of historically significant sites still under Palestinian control and use. These projects have significantly enhanced community resilience by providing essential infrastructure and space for Palestinian Civil Society Organizations (CSOs) in East Jerusalem. Adequate infrastructure and space are crucial for the effective functioning and sustainability of these organizations, which play a vital role in advocating for the rights of Palestinians, providing essential services, and fostering community development.

Proper facilities enable CSOs to operate efficiently, host community activities, and offer a safe environment for dialogue and collaboration. Well-resourced spaces also enhance the capacity of CSOs to engage with international partners, raise awareness about local issues, and mobilize resources. In a context where political and social challenges are pervasive, robust infrastructure supports the resilience and impact of CSOs, contributing to the overall stability and well-being of the Palestinian community in East Jerusalem.

By investing in these semi-public spaces, the project not only preserves historically significant sites but also strengthens the fabric of Palestinian civil society, ensuring these organizations can continue their vital work in advocating for rights, providing services, and fostering development. The development of these spaces has provided the community with safe and adequate areas for social interaction, learning, and recreation. In a context where open spaces are scarce, these areas have become crucial for community cohesion and resilience. They offer a sanctuary for residents to experience a sense of belonging and stability, which is essential given the socio-political challenges they face.

Semi-public spaces have facilitated community events and meetings, fostering a sense of unity and collective action. These spaces have become indispensable for social interaction and community

building, helping to strengthen the social fabric and resilience of the Palestinian community in East Jerusalem. Additionally, the rehabilitation and utilization of existing buildings and spaces have provided protection against potential takeovers by Israeli authorities or settlers. By maintaining and using these spaces, the project has contributed to the preservation of Palestinian presence and heritage in East Jerusalem.

Overall, the investment in semi-public spaces has played a pivotal role in supporting CSOs, enhancing community resilience, and preserving Palestinian heritage, making a significant impact on the community's stability and well-being.

Q6: What unintended effects of the project (positive and/or negative) can be observed? (R2 and R3)

Increased Interest from the Ministry of Education (MoE): The project's success with Fab-Labs has sparked significant interest from the MoE to replicate the model in other schools across Palestine. The report notes, "The group has shown a very strong interest and commitment during the sessions, mainly because RiSE's Fab-Labs are considered by the MoE as a pilot for a nation-wide policy of developing such labs in all schools of Palestine." [41]

3.2.5 Efficiency

3.2.5.1 Overall Findings

The project commenced its first three years of implementation with a primary focus on R1, without making significant progress on R2 and R3. This can be attributed to two main factors:

1. The substantial and extensive nature of R1, which constituted over 75% of the project's direct costs, in contrast to R2 and R3, which accounted for less than 25%. [42]
2. Limited human resources, which made it impractical to address all three results simultaneously.

The addition of one or two team members could have facilitated concurrent work on R1, R2, and R3, rather than tackling them sequentially. It is likely that additional human resources would have led to time savings and reduced the necessity for extensions, particularly the no-cost extension approved under Addendum 2 of the project. Moreover, additional human resources could have provided other benefits, such as more specialized expertise, better partnerships, and improved governance.

In retrospect, a project of over 12 million Euros spanning two different fields of specialization—education and public spaces—may have benefitted from additional human resources. Both KIIs and project documents show that the project recognized this need during implementation and sought support by requesting an education specialist through the Enabel's "Junior Programme". Additionally, they pursued support through competitive bids, resulting in the AL Nayzak contract. However, hiring one or two specialists to co-lead or support R2 and R3 could have accelerated the initiation and progress of these components significantly.

3.2.5.2 Cost efficiency

Overall, the project showcased robust financial management by expending significant funds in its first three years. Indeed, as per the table below, the project routinely achieved 85% or over of its

[41] (Annual Result Report 4, p. 21).
[42] Calculation based on Annual Result Report 4.

planned activities. However, 2022 saw a notable decline, with the project achieving only 54% of its planned commitments—the lowest rate to date. This shortfall, illustrated in both visual graphs and subsequent tables, underscores the challenges in aligning committed and planned amounts across the three different components of the project, revealing the complexities involved in implementing the three results.

Indeed, In the financial year 2022-2023, the project allocated funds as follows: 168,156 Euros were spent on R1 and 329,580 Euros on R2, with no expenditures recorded for R3. Consequently, the project team proactively sought and was granted a 1-year no-cost extension under Addendum 2. Once ready financial reporting for year 5 will likely show a high execution rate for R3 and partial for R2.

Figure 1: Theoretical vs. actual budget expenditure

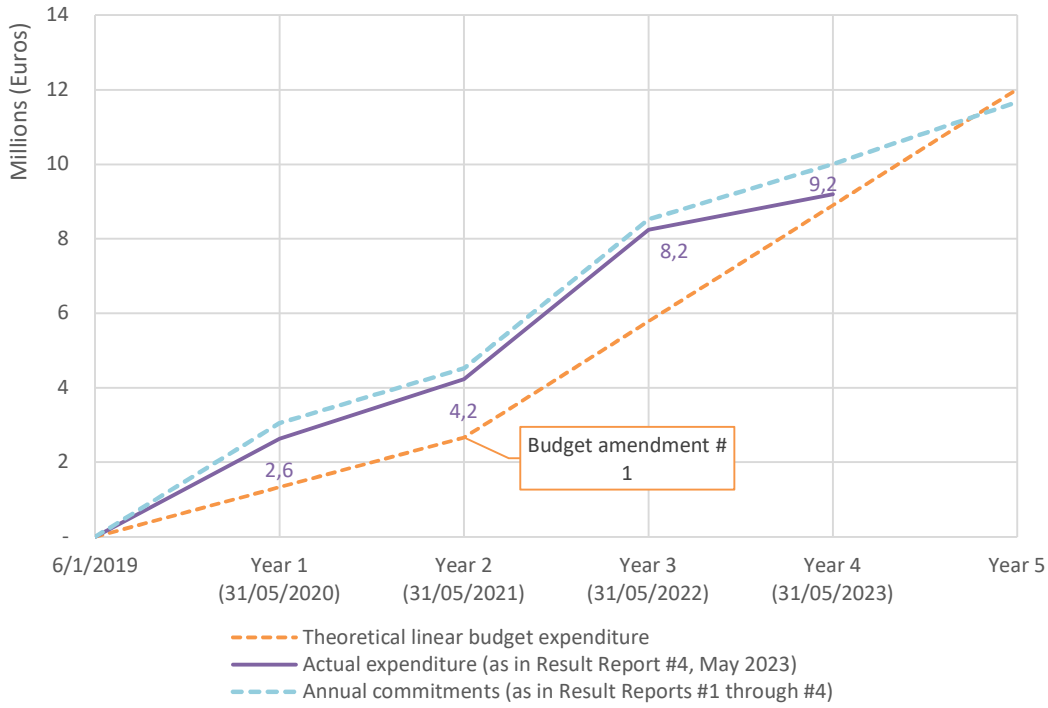


Table 4: Committed vs Expensed

			Year 1 (31/05/2020)	Year 2 (31/05/2021)	Year 3 (31/05/2022)	Year 4 (31/05/2023)
A	Annual commitment	Annual commitment	3,052,783	1,882,803	4,285,157	1,761,974
B	Annual expense	Annual expense (as in the respective annual report)	2,633,350	1,596,128	3,990,377	947,114
C	Annual expense	Annual expense (Report #4)	2,635,508	1,596,127	4,011,990	947,114
D	Absolute difference	Absolute difference (A-C)	-417,275	-286,676	-273,167	-814,860

E	% consumed	% consumed (C/A)	86%	85%	94%	54%

3.2.5.3 Time efficiency

In terms of time management, the project could have achieved greater efficiency by initiating R2 and R3 concurrently with R1, rather than sequentially. The budget amendment came with a 1-year cost extension, and although additional funds were secured the project still didn't initiate R2 and R3 at the same time. The project was forced to request a 1 year no cost extension making it a 5-year project instead of the original 3, and the envisioned 4 under the amendment. A second, short, no-cost extension may be necessary to ensure the official handover of the Fab Labs and some public spaces, as well as to facilitate the inauguration event. The no-cost extensions granted for the project did not result in changes to the targeted objectives or a scaling down of its scope. Instead, the extensions allowed for the continuation of the project as initially planned, ensuring that all intended goals and activities remained intact. Moreover, the no-cost extension did not necessitate a reallocation of funds. In this case, funds that were originally designated for activities were not redirected to cover general means.

3.2.5.4 Amendments

There were two amendments in the first 4 years of the project. One was a budget variation amendment where Enabel managed to secure additional funding for the project, the second was a no cost extension to extend the period of the project to 65 months. A no cost extension as the name suggests means that you need to manage within allocated budget and from unspent funds. In theory Enabel or other development agencies may realize this through re-negotiating staff contracts or reducing spending on other things. Moreover, no cost extensions don't allow for reprogramming or budget relocation.

There were two amendments agreed by the project one was a variation amendment and the other was a no cost extension. The budget amendment actually shows that the EU's contribution increased by 850,000 Euros from 4,257,330 Euros to 5,107,330 Euros. The additional budget was largely for additional rehabilitation works, 793979 Euros, Collective artwork 5645 Euros and overhead 50376. Overhead is a fixed cost set at 6.3% and is not a function of time but rather a function of total amount. Henceforth, if the EU contributed 100 Euros over 1 or 5 years the total charge would be the same which is 6.3 Euros.

However, the variation amendment (amendment 1) included a significant new contribution from the Belgium side under which increases to general means were contributed. Again, this is a function of the expanded budget and not the time extension. The no-cost extensions granted for the project did not result in changes to the targeted objectives or a scaling down of its scope. Instead, the extensions allowed for the continuation of the project as initially planned, ensuring that all intended goals and activities remained intact. Moreover, the no-cost extension did not necessitate a reallocation of funds. In this case, funds that were originally designated for activities were not redirected to cover general means.

In fact, a theoretical ratio analysis of general means budget when compared to activity costs shows that efficiency gains were realized by the project not the other way around. The project was planning on expending 16% of its budget for general means such as staff costs, office expenses, audit and monitoring costs it ended up expensing 13%. Activities budget increased from 80% to 85%.

Henceforth, while general means costs decreased by 3 points activity, expenditure increased by 5 points.

Table 5: Theoretical Ratio Analysis of Original Budget and Amended Budget

	Amended Budget	Original Budget	% of Amendment 1 budget	% of Original Budget
General means (staff costs, office, logistics, other support)	1553514	1053514	13%	16%
Activities (outputs)	10156962	5357338	85%	80%
Enabel indirect costs (overhead)	302692	252316	3%	4%
Total	12013168	6663168	100%	100%

3.2.5.5 Challenges

Internal Factors

In the early stages, the project prioritized R1, delaying the commencement of R2 and R3 activities. This phased approach led to missed opportunities and reduced cost efficiency. For example, some schools that participated in both R1 and R2 underwent redundant work on specific spaces—initially for refurbishment and later for Fab Lab preparation. The sequential implementation of R1, R2, and R3, rather than a parallel approach, resulted in inefficiencies. A more integrated strategy could have streamlined operations, reduced costs, and shortened the overall project timeline.

A parallel progression of all project components would have been more effective, particularly if supported by the addition of specialized human resources, such as experts in education and public spaces. By bringing in targeted expertise, the project team could have concentrated on their core strengths—such as infrastructure, architecture, and project management—while allowing specialists to address the more technical educational aspects

This strategic adjustment would likely have improved both time and cost efficiency, fostering a more cohesive and integrated approach to project execution. Advancing all phases simultaneously would have optimized resource utilization and accelerated project progress, ultimately leading to more timely and impactful results.

External Factors

The project was implemented during a particularly challenging period for Palestine and the world. Shortly after its commencement, the COVID-19 pandemic caused significant delays, halting contractors' work during the peak of restrictions. Additionally, the project faced two major political crises: the Gaza 7-Day War in 2021 and the October 7 crisis in 2023. Furthermore, the Palestinian

Authority experienced a fiscal standoff with the Israeli government over clearance revenues, which hindered the PA's ability to pay its employees, including government staff involved in the project. Moreover, teachers held multiple strikes throughout the implementation period, adding further complications.

3.2.6 Sustainability

Relevant Evaluation Questions:
Q2: Are the mechanisms used to ensure the sustainability of the fab-labs beyond the project duration effective?
Q2.1: What factors are facilitating or hindering the sustainability of the fab labs?

The sustainability mechanisms for the Fab Labs have been effectively integrated, offering a strong foundation for their continued operation beyond the project's duration. The project's alignment with local educational structures, particularly through the MoE and the JDoE, plays a crucial role in ensuring the Fab Labs' long-term sustainability.

3.2.6.1 Facilitating Factors for Sustainability

The project has developed several mechanisms and knowledge products to ensure the sustainability and replicability of the Fab-Labs, which includes a competency-based curriculum for the training of teachers and a list of equipment and consumables for the Fab-Labs, developed in collaboration with the Ministry of Education (MoE) and the Jerusalem Department of Education (JDoE). "The curriculum for the training of teachers was finalized in close coordination with the training department of the Ministry of Education" according to the Annual Result Report 4. Furthermore, to ensure the sustainability of STEAM labs, teachers will be trained in digital design and design thinking, enabling the technology curriculum to be duplicated in other schools. The document states, "To ensure sustainability of use of the STEAM labs in the future, teachers will be trained in digital design and design thinking".[43] The project also aims to share best practices through events and workshops, organizing community events to unveil artworks and conducting extracurricular workshops to enhance life skills in vulnerable schools, once the Fab-Labs start to be fully operational. "Organize event for the school community to unveil the artwork" and "Execution of additional extracurricular workshops to increase life skills in particularly vulnerable schools." [44]

1. **Institutional Support**

Engagement and Commitment: The active involvement of the MoE and JDoE in the planning and implementation of the Fab Labs has significantly bolstered their sustainability. The MoE views the Fab Labs as a pilot initiative for a broader national policy aimed at establishing similar labs across Palestinian schools. This institutional endorsement not only fosters a sense of ownership but also supports the continuity of the Fab Labs as a model for future developments (Annual Report 4, p. 50).

2. **Training and Capacity Building**

Teacher Training: The successful finalization and validation of the Teacher Training curriculum by the MoE and JDoE underscore a commitment to building local capacity. Identified training locations and a structured training program are pivotal in equipping educators with the skills needed to effectively utilize the Fab Labs (Annual Report 4, p. 50).

[43] (Specific Agreement Annex I, p. 34)
[44] (Specific Agreement Annex I, p. 28).

3. **Financial Sustainability**

Cost Management: The project's financial sustainability prospects are promising, with maintenance and service costs being manageable. The affordability of these costs is crucial for ensuring the continued operation of the Fab Labs over time (Annual Report 4, p. 19). The project managed to provide much of the consumables for the printers and fabrication equipment, this entails ink and plastic for 3D printers, however once they run out schools may struggle to cover these costs. In three separate interviews it was suggested that the revenue generated from PV solar systems in schools may enable schools to cover these costs.

3.2.6.2 Hindering Factors for Sustainability

4. **Resource Availability**

Teacher Availability: The availability of teachers has been a challenge, particularly as schools focused on addressing curriculum disruptions caused by Covid-19. The delay in effective training, starting only in late August 2022 and extending into summer 2023, highlights the impact of these disruptions on training schedules and the effective deployment of the Fab Labs (Annual Report 4, p. 50).

5. **Political and Security Issues**

External Disruptions: The political and security situation, including restrictions and closures imposed by Israeli authorities, has posed significant challenges to the sustainability of the Fab Labs. Such issues can affect the operational stability and accessibility of the labs (MTR Report).

6. **Financial Constraints**

Low Salaries: The financial constraints faced by teachers, including low salaries compared to their counterparts, impact their motivation and availability. These financial challenges can indirectly affect the sustainability of educational programs, including those related to the Fab Labs (MTR Report).

Relevant Evaluation Questions:
Q3: To what extent can these fab-labs serve as replicable models or as a source of inspiration and learning for the Palestinian Ministry of Education and other donors interested in similar initiatives in the West Bank? To what extent or how likely is it that these labs get used by other neighbouring schools?
Q3.1: How feasible are the scalability and adaptability of the fab-lab model to different educational contexts within the West Bank, considering factors such as resource availability and infrastructure?
Q3.2: Are neighbouring schools interested in utilizing or gaining access to these fab labs, and are there perceived barriers to facilitate access?

3.2.6.3 Scalability and Adaptability

The Fab Lab model demonstrates promising scalability and adaptability, particularly within the West Bank context. The positive reception and collaborative efforts with the MoE have laid a solid groundwork for expanding the model.

7. **Standardization and Benchmarking**

Equipment and Tools: The project has standardized the tools and equipment used in the Fab Labs, which the MoE plans to adopt as a benchmark for future installations across Palestinian schools. This

standardization ensures consistency and quality in the implementation of similar initiatives (Annual Report 4).

8. **Adaptability**

Future Expansion: The scalability of the Fab Lab model is supported by its adaptability to various educational settings. The MoE's endorsement and the successful integration of the labs within the local educational framework suggest that the model can be adapted and replicated in other regions, enhancing the overall impact of the digital and STEAM education agenda in Palestine.

In summary, while the Fab Labs have established a strong foundation for sustainability through institutional support, capacity building, and financial management, challenges related to resource availability, political and security issues, and financial constraints must be addressed to fully realize their potential. The model's scalability is promising, with the standardization of equipment and positive collaboration with the MoE paving the way for future expansion and adaptation.

3.2.6.4 Interest from Neighbouring Schools

The Agreement Annex 1 outlines significant interest from neighbouring schools in utilizing the Fab-Labs. The project has planned for the use of Fab-Labs by students from other schools, indicating a broader interest and potential for shared use. To attract more teachers to use Fab-Labs, it is essential to ensure their operability and that teachers have mastery over these labs.

Key informant interviews with school principals indicate a willingness to open these labs for others. However, perceived barriers exist, such as logistical challenges and the need for continuous support and training for teachers. The Mid-Term Review (MTR) suggests further support may be needed to address the insufficient capacity of the Ministry of Education (MoE) and the Jerusalem Directorate of Education (JDoE), highlighting potential barriers in resource allocation and administrative support (MTR Report, p. 11).

Q5.1: How Feasible Are the Scalability and Adaptability of the Semi-Public Space Model to Fostering Community Engagement within the West Bank, Considering Factors Such as Resource Availability and Infrastructure? (R3)

The scalability and adaptability of the semi-public space model are feasible, given the structured approach and community involvement. The project has demonstrated that with proper planning and engagement, similar spaces can be developed in other communities. "The works tender of the other 5 sites is planned to be launched by the end of July, and have the works implemented before the end of the year" (Annual Report 4, p. 11).

The existing infrastructure in the West Bank can support the development of similar spaces, provided that there is adequate planning and community involvement. The project's success in identifying and developing multiple sites within the budget suggests that the model is adaptable to different infrastructural contexts.

Q5.2: Are Communities and Local Organizations Interested in Utilizing or Gaining Access to This Semi-Public Space, and Are There Perceived Barriers to Facilitate This Access?

There is interest from communities and local organizations in utilizing the semi-public spaces. The project has involved these stakeholders in the planning and implementation phases, indicating a high level of interest and potential for shared use. "The identification of semi-public spaces was finalized

after visiting many potential sites and discussions with CSOs and, in some cases, Palestinian Municipalities" (Annual Report 4, p. 11).

Community Interest: The Annual Result Report 4 highlights the involvement of community groups, such as the establishment of a woman's group and the organization of study tours to existing environmentally friendly public spaces, which demonstrates strong community interest and engagement. Communities and local organizations have shown interest in utilizing these semi-public spaces, as evidenced by their active participation in the planning and design workshops. However, perceived barriers include political restrictions, limited resources, and potential security concerns.

Quote: "The participatory process is purposely designed to increase the sense of ownership from the students" (Specific Agreement Annex I).

Q5.3: Are There Any Mechanisms in Place or Any Knowledge Products Developed or Adopted by National Partners? (R3)

The project did not establish any national partnerships under R3, nor did it develop any knowledge products or mechanisms that could be adopted for broader use.

4 Conclusions

1. **Early and Integrated Project Phases**: The project would have benefitted from parallel rather than sequential implementation of its phases (R1, R2, and R3), optimizing both time and cost.

2. **Specialized Human Resources**: The inclusion of specialists in education and public spaces alongside the project infrastructure team is crucial. Education experts can guide curriculum integration and teacher training, while public space experts can ensure effective use and management of community spaces. This specialized input is essential for addressing sector-specific challenges and enhancing the overall impact of the project.

3. **Infrastructure and Resource Management:** Challenges related to infrastructure, such as incomplete setup and unresolved issues (e.g., ventilation for CNC machines), have hindered the effective use of Fab Labs. Ensuring that all technical and infrastructural aspects are addressed before full-scale implementation is essential for the functionality and success of these labs.
4. **Official Handover and Coordination**: Delays in the official handover process between the Ministry of Education (MoE) and the Jerusalem Department of Education (JDoE) limited the full utilization of Fab Labs. Better communication between these entities is crucial for successful implementation.

5. **Impact of Public and Semi-Public Spaces**: The rehabilitation of semi-public spaces provided important learning and community environments, highlighting the value of these spaces in addressing educational and social needs.

6. **Community Engagement and Ownership**: Strong involvement from key stakeholders such as the MoE and JDoE contributed to project sustainability and ownership, underlining the importance of early stakeholder engagement.

7. **Challenges and Flexibility**: The project demonstrated significant adaptability in overcoming political, financial, and resource challenges. Flexibility in planning was necessary to respond effectively to these obstacles.

8. **Risks Associated with Municipality Engagement**: Engaging with the Jerusalem municipality introduced risks, such as political tension and potential disruption to international relations with the Palestinian Authority. Careful navigation of such political contexts is essential.

9. **Legal and Ownership Challenges**: The project experienced delays due to legal complexities and space identification. Streamlining these processes in future projects will help avoid delays and ensure timely completion.

10. **Training and Capacity Building** Initial teacher training programs were insufficient, focusing on theory rather than practical use of the Fab Labs. Future training should be extensive, hands-on, and better aligned with teachers' schedules.

11. **Institutional Partnerships**: Building strong partnerships with relevant institutions is crucial for successful public space development. In areas like East Jerusalem, where public space management is complex, institutional support is necessary.

12. **Governance**: Governance challenges played a significant role in limiting the full potential of the project. The absence of clear governance structures, such as dedicated steering committees and technical working groups, reduced the effectiveness of coordination and accountability across the project's components. Political constraints, such as the restriction on direct engagement with MoE, further complicated governance, resulting in insufficient national ownership and integration with broader educational strategies.

5 Recommendations

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
In the current RISE II project, as well as in any future or ongoing projects, the project team should regularly and carefully sequence the execution of different phases and components to optimize resource utilization, accelerate progress, and ensure a more integrated implementation of project activities.	**1 Early and Integrated Project Phases**	**Intervention Team**	**1**	**Medium term**	**Operational**
Integrate specialists in education and public spaces into the project team. This would enhance the technical dimensions of the projects. For example, the education expert should focus on curriculum integration and teacher training, while public space experts should manage and optimize community spaces. Specialized input will address sector-specific challenges in a technical manner more effectively and enhance the overall impact of the project and ensure alignment	**2 Inclusion of Specialized Human Resources**	**Intervention Team in coordination with Enabel Representation**	**1&2**	**Short term**	**Operational**

between soft components, infrastructure and equipment.					
Develop comprehensive, practical training programs for teachers, focusing on hands-on experience and aligning with their schedules. ***The training must be owned and rolled out by the Ministry through its official training body.*** Teachers also recommended incorporating ongoing training to build confidence and competence in using Fab Labs. Improved training will enhance teachers' ability to utilize Fab Labs effectively, thereby maximizing their educational impact.	**3 Enhanced Training and Capacity Building**	**Intervention Team in coordination with the Ministry of Education**	**1 & 2**	**Medium term**	**Strategic**
Officially adopt and integrate the Fab Lab curriculum into the educational system. Ensure that curriculum materials are available in Arabic to facilitate better understanding and usage. Official integration and adoption by the MoE will bridge the gap between the labs' potential and their actual use, optimizing their benefits in education.	**4 Curriculum Integration and Adoption**	**Intervention Team** **Ministry of Education**	**1 & 2**	**Medium term**	**Strategic**

Streamline the official handover process by improving coordination between the MoE and the JDoE. Establish clear communication channels and alignment efforts. Effective coordination will resolve handover issues and ensure that Fab Labs are fully operational and utilized.	**5 Official Handover and Coordination**	**Intervention Team in coordination with** **the Ministry of Education and** **the Jerusalem Department of Education**	**1 & 2**	**Medium term**	**Strategic**
Address all technical and infrastructural aspects before full-scale implementation. Ensure that issues like ventilation for CNC machines are resolved to enable effective use of Fab Labs. Proper infrastructure management will enhance the functionality and success of Fab Labs.	**6 Infrastructure and Resource Management**	**Intervention Team** **Jerusalem Department of Education**	**1 & 2**	**Short term**	**Operational**
Continue to invest in and support the development of public and semi-public spaces, recognizing their role in providing safe environments for learning and community engagement. These spaces contribute significantly to educational and social needs,	**7 Impact of Public and Semi-Public Spaces**	**Donor** **Enabel Country Team** **Enabel Brussels**	**2 &3 & 4**	**Long term**	**Strategic**

particularly in areas with suffering from marginalization.					
Engage key stakeholders, such as relevant actors within MoE and the JDoE, early in the process to secure their commitment and support. Under R2 and R3 this entails building relevant governance structures that involve relevant actors. Under R3 Foster community buy-in and manage opposition constructively. Strong stakeholder involvement and community support are essential for the project's long-term success and sustainability.	**8 Community Engagement and Ownership**	**Intervention Team in cooperation with the key national partners (MoE, JDoE)**	**1 & 2**	**Short term**	**Strategic**
Maintain flexibility in project planning and execution. Continuously assess and adjust project plans to address political, financial, and resource-related challenges. Flexibility and adaptive strategies will help navigate obstacles effectively and enhance the project's overall effectiveness.	**9 Addressing Challenges and Flexibility**	**Intervention Team** **Enabel Country Team**	**1 & 2**	**Short term**	**Operational**

Streamline processes for space identification and legal verification. Develop clear protocols and allocate resources to resolve these issues efficiently. Efficient management of legal and ownership processes will prevent delays and facilitate timely project completion.	**10 Challenges in Space Identification and Legal Verification** **9 Streamlining Legal and Ownership Processes**	**Intervention Team** **Enabel Country Team**	**1 & 2**	**Medium term**	**Operational**
For any future project, adopt flexible governance structures tailored to the project's context, such as technical committees or joint planning groups, ensuring community representation, clearly defined roles, proper documentation, and inclusion of relevant stakeholders to enhance transparency and accountability. This approach ensures that governance structures are tailored to the specific needs and context of the initiative while maintaining transparency and accountability	**11 Institutional Partnerships** **12 Governance**	**Intervention Team** **Enabel Country Team**	**1 & 2**	**Short term**	**Strategic**
Build and secure robust institutional partnerships to support public space components and other project elements. Seek out institutions with	**11 Institutional Partnerships** **12 Governance**	**Intervention Team** **Enabel Country Team**	**1 & 2**	**Short term**	**Strategic**

the capability and willingness to collaborate. Strong partnerships will provide the necessary support for successful implementation and expansion of public space initiatives.					

6 Lessons learned

1. **Officialization, Institutionalization and Adoption**

For greater long-term impact and sustainability, the project should prioritize using Ministry of Education (MoE) resources rather than relying on external consultants. Involving the MoE in key areas such as curriculum development and teacher training would not only enhance overall project outcomes but also foster greater ownership and alignment with national educational priorities. The absence of official adoption of the Fab Lab curriculum has hindered its integration and use within the educational system. By ensuring that these elements are institutionalized and officially adopted by the MoE, the project could significantly improve both the immediate impact and long-term sustainability of its initiatives.

2. **Project Adaptability**

Flexibility in project planning and the ability to adapt strategies are vital for overcoming unforeseen challenges, as demonstrated by the project's ability to continue despite setbacks with external consultants and political risks.

3. **Technical Human Resources**

Specialized human resources allow for more precise and effective management of individual project components. Expertise in education, public spaces, and infrastructure ensures that each initiative is developed and executed according to its specific requirements and objectives.

- **Education Expert:** To address the specific needs of the education sector, having an education expert on the team is vital. This expert can provide insights into effective teaching strategies, curriculum development, and the integration of Fab Labs into educational settings. Their expertise ensures that educational initiatives are aligned with best practices and meet the needs of students and educators.
- **Public Space or NGO Expert:** For components related to public spaces and community development, a specialist in public spaces or NGOs is essential. This expert can guide the design and implementation of semi-public areas, ensuring they meet community needs and comply with local regulations. Their knowledge helps in creating functional, safe, and engaging spaces that support community activities and enhance resilience.

4. **Holistic Development:**

Integrating multiple sectors, such as education and public spaces, within a single geographical area fosters a cohesive strategy that addresses diverse community needs more effectively. This comprehensive approach creates valuable synergies between different initiatives, leading to more impactful and sustainable outcomes. For example, enhancing educational facilities can be complemented by developing recreational spaces, thereby enriching the overall community environment. This is particularly relevant in East Jerusalem, where Ministry of Education-led schools often lack sufficient recreational and extracurricular activities. By focusing on the creation of public and semi-public spaces in partnership with local organizations, the project can fill this gap, ensuring children have access to such opportunities outside school hours. This strategy directly aligns with the project’s goals of enhancing life skills both within and beyond the classroom.

5. **Clear Governance Structures**

The project must have strong partnerships and strong national representation in its governance structures. Ensuring that legitimate institutional partners are represented is essential. The working model in Palestine has been to include the Ministry of Local Government when working on projects that target Municipalities, and with the Governorate of Jerusalem, and Ministry of Jerusalem Affairs when working inside J1 of Jerusalem. Even if these partners have extremely limited ability to function inside Jerusalem, consultation and participatory approached are essential for relevant outputs. They also enhance overall cohesion and not contribute to further fragmentation and isolation of Jerusalem from its Palestinian surrounding and institutions. Lastly, if there is such strong opposition to working with official PA organizations due to their limited capacity forming governance bodies such as steering committees. Technical committees and working groups that include strong representation by legitimate actors can also facilitate accountability, participation and consultation.

6. **Politicization of Aid and Humanitarian Support:**

The political decision by the donor (Belgium) to limit direct contact with the Ministry of Education (MoE), aside from technical interactions with the Jerusalem Directorate of Education (JDoE), significantly affected the project's engagement with the MoE. This lack of coordination resulted in the absence of a sector-wide policy dialogue, which would have been crucial for embedding the project into broader educational strategies. Consequently, Enabel operated in isolation from donor coordination efforts. The absence of a true national partner and national ownership had a negative impact on R2 and R3, limiting the utilization and dissemination of digital materials on environmental awareness, as well as the overall coherence of the project.

7. **Partnerships:**

For the project to succeed, it must establish strong partnerships with legitimate national institutions and ensure their active representation within its governance structures. Including credible institutional partners is crucial for fostering local ownership and ensuring the project's sustainability. In Palestine, the established practice is to collaborate with the Ministry of Local Government when working with municipalities, and with the Governorate of Jerusalem and the Ministry of Jerusalem Affairs when operating in J1 of Jerusalem. Although these partners may have limited capacity to function effectively within Jerusalem, their involvement through consultation and participatory approaches is essential for producing relevant and context-sensitive outputs.

Such collaboration also enhances overall cohesion and prevents further fragmentation of Jerusalem from its Palestinian surroundings and institutions. If working with official Palestinian Authority (PA) organizations poses challenges due to their limited capacity, forming governance bodies like steering committees, technical committees, and working groups that include strong representation from legitimate actors can still promote accountability, participation, and consultation. These actors could include legitimate NGOs and community representatives. These structures ensure that the project remains inclusive, responsive, and aligned with national and local priorities, even in the face of political constraints.