

Environmental and Climate Justice Program

| Full Report

Submitted to



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|--|----|
| TASK I Action Plan | 5 |
| 1. Introduction | 5 |
| 2. Objectives | 6 |
| 3. Overview of Target Communities | 6 |
| 4. Community Assessments for Private Sector Linkages | 11 |
| 4.1. Existing Community Resilience Initiatives | 14 |
| 4.2. Stakeholders Analysis | 16 |
| 5. Proposed Interventions for private Sector Linkages | 19 |
| 5.1. Post-Harvest Interventions at Bardala Community | 21 |
| 5.2. Water Management and Bottling for Marda Community | 22 |
| 5.3. Renewable Energy Farm for Bani-Naeem Community | 23 |
| 5.4. Building the Capacity of Joint Councils | 25 |
| 5.5. Adaptation Investment Standards Label | 27 |
| 6. Implementation Strategy | 28 |
| 6.1. Stakeholder Engagement Plan | 28 |
| 6.2. Financing Mechanisms | 29 |
| 6.3. Project Management and Coordination | 31 |
| 7. Monitoring and Evaluation | 31 |
| 7.1 Key Performance Indicators (KPIs) | 32 |
| 7.2 Methods and Frequency of Data Collection | 32 |
| 7.3 Reporting Mechanisms and Feedback Loops | 32 |
| 7.4 Plan for Mid-term and Final Evaluations | 33 |
| 8. Risk Assessment and Mitigation Strategies | 33 |
| 8.1 Identification of Potential Risks | 33 |
| 8.2 Assessment of Likelihood and Potential Impact | 33 |
| 8.3 Mitigation Strategies for High-Priority Risks | 34 |
| 8.4 Contingency Plans for Unforeseen Challenges | 34 |
| 9. Timeline and Milestones | 34 |
| 9.1 Detailed Timeline for Each Intervention | 34 |
| 9.2 Key Milestones and Decision Points | 35 |
| 9.3 Dependencies Between Project Components | 35 |
| 9.4 Flexibility Considerations | 35 |
| TASK II Awareness Campaign | 37 |
| 1. Introduction | 37 |

| | |
|---|----|
| 2. Campaign Objectives | 37 |
| 3. Key Messages | 39 |
| 4. Target Audience | 40 |
| 5. Campaign Phases | 42 |
| 6. Targeted Campaigns Framework | 43 |
| I. Private Sector Companies | 43 |
| II. Smallholder Farmers | 45 |
| III. Palestinian Public | 46 |
| IV. Media Outlets | 47 |
| 7. Monitoring and Evaluation Measures | 47 |
| 8. Budget Allocation | 49 |
| TASK III Communication Strategy | 52 |
| 1. Introduction | 56 |
| 1.1. Primary Objectives | 56 |
| 1.2. Target Audiences | 56 |
| 2. Key Messages by Stakeholder Group | 56 |
| 3. Communication Action Plan | 56 |
| I. Establishing a Feasible and Attractive Pipeline | 56 |
| II. Applying the Blended Finance Model | 57 |
| III. Connecting Data Sources Using Technology to Continuously Monitor Stakeholder Involvement | 57 |
| IV. Piloting the Shared Pipeline with Blended Finance and Technological Data Collection | 58 |
| V. Long-Term Measurement and Reporting for Stakeholders | 59 |
| 4. Environmental Financing Concept Notes | 59 |
| I. Crowdfunding for Green Initiatives | 61 |
| II. Micro-Insurance for Environmental Projects Partner | 64 |
| III. Green Growth Palestine Project Pipeline Partner: GIZ | 68 |
| III. Monshati Platform Integration | 71 |
| IV. Corporate CSR Engagement | 75 |
| TASK IV Private Sector Manual | 79 |
| 1. Introduction | 79 |
| 2. Economic and Social Benefits of Adopting Green Practices | 80 |
| 2.1 Benefits Across Selected Palestinian Sectors | 80 |
| 2.2 Benefits Across Selected Businesses | 85 |
| 2.2 National-Level Impact | 86 |
| 3. Frameworks and Best Practices for Climate Resilience | 88 |
| 3.1 Climate Justice Practices and Examples in Palestine | 88 |

| | |
|---|-----|
| 3.2 Cross-sectoral Practices (ISO Standards and Certifications) | 92 |
| 4. Actionable Steps for Businesses | 93 |
| TASK IV Management, Engagement, and Sustainability Plan | 95 |
| 1. Introduction | 95 |
| 2. Theory of Change: MESP Framework | 96 |
| 3. Companies Overview and SWOT Analysis | 98 |
| 3.1 Paper Pal | 98 |
| 3.2 Purix | 100 |
| 3.3. Snipe | 101 |
| 4. Strategic Framework: Management, Engagement, and Sustainability for Climate-Resilient Businesses | 103 |
| 4.1. Management: Streamlining Operations for Investment Readiness | 103 |
| 4.2. Engagement: Building Relationships with Communities and Stakeholders | 104 |
| 4.3. Sustainability: Achieving Environmental and Financial Stability | 105 |
| 5. Framework Applications for the Target Companies | 106 |
| 5.1 Applying the Strategic Framework to Paperpal | 106 |
| 5.1.1 Management: Streamlining Operations for Investment Readiness | 106 |
| 5.1.2. Engagement: Building Relationships Through Branding | 107 |
| 5.1.3. Sustainability: Diversification and Expansion | 107 |
| 5.2 Strategic Framework for Purix: Management, Engagement, and Sustainability | 108 |
| 5.2.1. Management: Streamlining Operations for Investment Readiness | 108 |
| 5.2.2. Engagement: Building Relationships Through Branding and Partnerships | 108 |
| 5.2.3. Sustainability: Diversifying Products and Expanding Geographically | 109 |
| 5.3 Strategic Framework for Snipe: Management, Engagement, and Sustainability | 109 |
| 5.3.1. Management: Streamlining Operations for Investment Readiness | 109 |
| 5.3.2. Engagement: Building Relationships Through Branding and Partnerships | 110 |
| 5.3.3. Sustainability: Diversifying Products and Expanding Geographically | 110 |
| Annex I Palestinian Green Successes | 111 |
| Annex II Global Case Studies on Management, Engagement, and Sustainability for Climate Resilience | 125 |

TASK I | Action Plan

1. Introduction

The Environmental and Climate Justice Programme (ECJP) is a pioneering initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with the Palestinian Agricultural Institutions Coalition (PAIC), the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice. With support from the Swedish International Development Agency (SIDA), the ECJP operates on a 36-month timeline from 2021 to 2024.

A cornerstone of the ECJP has been the development of community resilience plans in collaboration with PAIC organizations. These plans, crafted for vulnerable communities across Palestine, address urgent needs in water management, energy access, food security, and waste management. The plans adopt a gender-mainstreaming and human rights-based approach, ensuring that marginalized groups, including women, youth, and smallholder farmers, are central to climate adaptation strategies.

The ECJP's approach is grounded in the Water-Energy-Food (WEF) nexus, recognizing the intricate interdependencies between these critical resources. This holistic framework is particularly relevant in the Palestinian context, where resource scarcity and climate vulnerability are intensified by political and economic constraints.

Engaging the private sector is crucial to the success of climate justice initiatives in Palestine. Private businesses can provide essential resources, expertise, and innovative solutions to address environmental challenges. Moreover, aligning business interests with community resilience goals can create sustainable, long-term solutions that benefit both the private sector and vulnerable communities.

However, these efforts operate within the challenging context of the Israeli occupation. Restrictions on movement, access to resources, and development in Area C pose significant obstacles to implementing climate resilience projects. The occupation's impact on land use, water rights, and energy infrastructure further complicates efforts to address environmental and climate justice issues.

This action plan seeks to navigate these challenges by creating meaningful linkages between private sector actors and community resilience efforts. By focusing on targeted initiatives that align business interests with community needs, the plan aims to demonstrate scalable models for private sector engagement in climate justice, ultimately contributing to more resilient and sustainable Palestinian communities.

2. Objectives

The action plan aims to create meaningful connections between private sector actors and community resilience efforts, focusing on five targeted initiatives that address climate vulnerability in key areas:

1. **Link Private Sector to Community Resilience:** Identify and establish five new initiatives that directly connect businesses with community resilience plans, focusing on leveraging private sector resources and expertise to address needs in water, energy, food, and waste management.
2. **Develop Actionable Linkage Plans:** For each of the five initiatives, outline a detailed plan of action that includes specific steps for engagement, financing, and implementation, ensuring a practical and streamlined approach to building partnerships between private sector actors and communities.

3. Overview of Target Communities

In order to create linkages between private sector actors and the targeted vulnerable communities, we are approaching this from an adaptation investment perspective to strengthen community resilience, specifically within the context of Palestine. This approach is guided by the theory of change outlined in the *Engaging Private Sector Actors in the Environmental Climate Justice Program (ECJP)* report, as well as the National Adaptation Plan (NAP) for Palestine. Our focus is on addressing the Water-Energy-Food (WEF) nexus and waste management, taking into account the unique challenges posed by the occupation. This perspective provides a foundation for exploring community-specific characteristics, including geographic and population details, land use constraints, and resource-related vulnerabilities. The following sections will expand on these areas in more detail:

1. Location and Population

- **Geographic Dispersion:** The four communities are spread across different governorates, with each situated near distinct natural features (Jordan Valley, Beisan/Beit She'an Valley, Salfit, and Hebron). This variety influences their specific climate and environmental challenges, such as water scarcity, agricultural potential, and energy access.
- **Population Dynamics:** Populations range from under 2,000 in Bardala to over 24,000 in Bani Nae'em. The age distribution also varies, with a significant portion of young residents (41%-47% under 18) in all areas. This youth-skewed demographic suggests a high dependency ratio, indicating potential long-term needs for education, employment, and social services.

2. Land Classification

- **Area C Restrictions:** Each community faces significant challenges due to large portions of land falling within Area C, which is under Israeli control. In Al Ouja, Bardala, and Bani

Nae'em, around 90% of the land is classified as Area C, creating restrictions on agricultural use, development, and infrastructure expansion. This classification hinders their autonomy and access to resources necessary for community resilience.

- **Agricultural Limitations:** Land confiscations in Marda (4,000 dunums) and Bardala (32.3%) directly impact agricultural productivity, reducing the land available for farming and impacting food security.

3. Water Sources and Challenges

- **Water Scarcity and Dependence on Mekorot:** Each community relies heavily on the Israeli company Mekorot for water, leading to frequent shortages, high costs, and unreliable supply. For instance, Bardala suffers from irregular water supply, while Marda deals with water pollution from local springs. This dependency exacerbates vulnerabilities, particularly for agricultural communities where consistent water is crucial.
- **Infrastructure Gaps:** Bardala and Bani Nae'em lack the infrastructure to store and distribute water effectively. Bardala is constructing a new water tank, while Marda needs its springs rehabilitated. Limited or outdated infrastructure for water delivery (such as aged networks and insufficient capacity) compounds the scarcity issues in these areas.

4. Energy Sources and Challenges

- **Reliance on Israeli Electric Grid:** All four communities are connected to the Israeli electricity grid, which results in limited control over energy supply and heightened vulnerability to disruptions. For example, Bardala's energy supply only meets 56.25% of local needs, leading to frequent power cuts, particularly in summer.
- **Potential for Renewable Solutions:** Communities like Al Ouja have implemented solar energy projects for remote areas, and Bani Nae'em has considered solar energy solutions to compensate for weak infrastructure. These measures not only address local energy needs but could also reduce dependency on the Israeli grid. Expanding such initiatives would improve energy resilience.

5. Waste Management and Challenges

- **Insufficient Waste Collection Frequency:** Waste management services are inadequate across all communities, with collection frequencies being too low, leading to waste accumulation and related health hazards. For instance, both Al Ouja and Bardala only receive waste collection services twice per week.
- **Environmental Health Risks:** Improper disposal of waste (e.g., animal waste and burning of solid waste in Al Ouja) contributes to pollution. Marda, in particular, faces pollution from settlement waste runoff affecting olive fields, further exacerbating agricultural challenges.
- **Lack of Sewage Networks:** Bani Nae'em, along with Marda, lacks a sewage network, relying on cesspits that contaminate groundwater, posing health risks to residents and contaminating local water resources.

6. Agricultural Activities and Challenges

- **Water-Dependent Agriculture:** Agriculture is a cornerstone of these communities, particularly Bardala, which relies heavily on field crops, and Al Ouja, known for dates and bananas. However, water shortages and the cost of irrigation limit the productivity of this sector. Restricted access to water in Area C impacts Marda and Bani Nae'em, resulting in suboptimal agricultural output.
- **Land Access Limitations:** Confiscated or restricted land (as seen in Marda and Bani Nae'em) reduces the amount of arable land available, while frequent Israeli military exercises in Bardala damage irrigation systems. These challenges have broader economic implications, as reduced agricultural productivity lowers income for communities and threatens food security.

7. Occupation-Related Challenges

- **Israeli Control in Area C:** In all communities, Israeli restrictions severely limit land use, water access, and expansion potential. This lack of autonomy restricts residents' ability to invest in sustainable agricultural practices or implement renewable energy projects, thereby hampering resilience efforts.
- **Movement and Security Concerns:** Marda and Bani Nae'em experience movement restrictions due to fencing and checkpoints, making access to healthcare, markets, and agricultural lands challenging. This impacts the livelihoods of residents who rely on commuting for employment or access to essential services.

8. Proposed Projects by PAIC organizations

- **Infrastructure Improvements:** Common themes in the proposed projects include expanding water networks, building new water storage, enhancing waste management systems, and improving energy supply. These initiatives are essential for enhancing resilience by improving access to vital resources and reducing reliance on external providers.
- **Renewable Energy:** Solar energy projects for under-served areas, like those in Al Ouja, could provide reliable power while reducing costs and dependency on the Israeli grid. Projects for solar street lighting in Marda demonstrate a practical approach to enhance safety and infrastructure sustainability.
- **Agricultural Development:** Communities have prioritized agricultural support, such as Bardala's irrigation system repairs, Marda's composting system, and Bani Nae'em's protected agricultural areas. These efforts address specific vulnerabilities in food production by increasing resource efficiency and bolstering local agricultural capacity.

Table 1: Community Resilience Plans Summary

| Parameter | Al Ouja Community (PAIC) | Bardala Community (ARIJ) | Marda Community (PHG) | Bani Na'eem Community (LRC) |
|-----------|--------------------------------|--------------------------------|--------------------------|-----------------------------------|
| | | | | |

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|---------------------------------------|--|--|---|--|
| Location | 12 km north of Jericho in the Jordan Valley. | 13 km northeast of Tubas city. | 7 km north of Salfit. | 7 km east of Hebron. |
| Population | 5,672 residents. 41% under 14, 55% between 15-64. | 1,607 residents. 47% under 18, 49.5% aged 18-65. | 2,644 residents. 51% male, 49% female. | 24,628 residents. |
| Land Classification | 18,329 dunums, 90% Area C, 10% Area A. | 18,329 dunums, 90% Area C, 10% Area B. 32.3% confiscated. | 8,816 dunums, 84% Area C, 16% Area B. | Large areas classified as Area C, restricted access. |
| Water Source & Challenges | Al Ouja Spring for agriculture, 15 private wells, Mekorot for drinking water. Water shortages due to Israeli over-extraction, high prices (2.4-4 NIS per cubic meter), limited coverage in Area C. | Mekorot is the primary water supplier, with 3 wells (2 primary, 1 backup). Water shortages, irregular supply from Mekorot (cuts lasting days/weeks), Israeli control over water resources. | Mekorot is the main water supplier. Village also has two springs (B'er Marda and Smeita), which are polluted but could be used for agriculture if rehabilitated. Water shortages due to Israeli control and local water pollution from waste management issues. | Supplied by wells in Masafer Bani Nae'em, but Mekorot controls and limits water flow. Insufficient access to water due to Israeli restrictions, impacting agriculture. |
| Energy Source & Challenges | Jerusalem Electricity Company (99% connected), solar energy projects for Bedouin areas. Some Bedouin communities lack | Israeli Electricity Company supplies 56.25% of electricity needs. Insufficient supply, frequent power cuts during summer | Connected to Israeli grid, but with insufficient lighting in some areas and a lack of solar energy infrastructure | Connected to Israeli electricity grid. Weak infrastructure in some areas; increasing energy needs suggest solar as a potential solution. |

| | | | | |
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| | grid access, high electricity costs. | | | |
| Waste Management & Challenges | Waste collected by the Joint Service Council twice weekly, resulting in accumulation and improper animal waste disposal. Waste buildup near roads and springs, burning of waste causes pollution. | Waste collected twice weekly by the Joint Service Council; frequency issues lead to buildup. Agricultural waste disposal is problematic. | Waste collection managed by Joint Services Council for Salfit, but infrequent, leading to waste overflow. Settlement waste runoff pollutes agricultural lands. | Waste is collected by municipal services, transported to a landfill 15 km away. No sewage network, resulting in cesspit wastewater contaminating groundwater. |
| Main Agricultural Activities | Agriculture (dates, bananas, herbs), livestock farming (sheep, goats). | Agriculture (vegetables, field crops), livestock farming (sheep, goats, cows, chickens, bees). | Agriculture (olive trees, small-scale organic farming with greenhouses). Training site for organic farming. | Livestock (cows, sheep, goats), greenhouses for vegetables, olive trees, and beekeeping. |

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| Occupation-Related Challenges | Israeli restrictions on land and water use in Area C, confiscation of land for settlements. | Land confiscation (32.3%), military exercises damage infrastructure, water access restricted. | 4,000 dunums confiscated by Israeli settlements, frequent flooding of olive groves from settlement wastewater, and movement restrictions due to security fencing. | The Israeli military controls much of Area C, restricting access to agricultural land and water sources. Settlement expansion complicates land access. |
| Executed projects through Community Resilience Plans by PAIC Organizations | Tracking municipal council waste through the GIS system to optimize collection cost and time. Public Garden | Demonstration farm for Women Farmers, introducing raising beds Solar Power for the cooperative of Bardala Public Garden from Recycled tires Water network rehabilitation at the cooperative | Spring Wells network Rehabilitation | Rehabilitation of artesian water wells Solar panels installation for 30 dunams greenhouses |

4. Community Assessments for Private Sector Linkages

After conducting interviews with representatives from four municipal councils, one joint council, and four cooperatives across the communities of Marda, Bardala, Bani Naeem, and Al Ouja, we gathered valuable insights on existing community resilience initiatives. These initiatives, facilitated by PAIC organizations as outlined in Table 1: Summary of Community Resilience Plans and Challenges, reflect each community's efforts to address local challenges in water, energy, food, and waste management.

In these discussions, we assessed the primary challenges facing each community and explored their experiences with private sector collaboration. Additionally, we evaluated their willingness to engage in future partnerships with the private sector and gauged their level of engagement readiness, based

on insights from municipal leaders and cooperative representatives. The feedback highlighted a strong interest in initiatives that are sustainable and could increase employment opportunities and income sources within each area.

Table 2: *Workforce distribution*¹

| Community | Agriculture | Public Sector | Israeli Labor Market |
|-------------|-------------|---------------|----------------------|
| Al Ouja | 70% | 15% | 15% |
| Bardala | 90% | Not Specified | No Specified |
| Marda | 40% | 15% | 25% |
| Bani Na'eem | 19% | 5% | 20% |

Building on the analysis of the community resilience plans, and based on the fact that the demographic dynamic in these areas lean towards youth-skewed demographic, suggesting a high dependency ratio on breadwinners, Our strategic approach is to focus on boosting the incomes of community members as a foundational step, The workforce in these areas comprise mostly of farmers and agribusinesses. In addition, the analysis shows that each community faces varying degrees of challenges across the sectors of water, energy, food, and waste management, all of which intersect with income stability—a crucial factor that enables communities to address these issues autonomously.

Bardala, for instance, where 90% of the workforce comprises farmers, is particularly affected by restrictive conditions imposed by agribusiness intermediaries. According to the municipal council head and representatives from the Bardala cooperative, many farmers have become financially dependent on these intermediaries, who lend them money with the condition that they sell their produce exclusively through these channels. This arrangement often results in intermediaries purchasing crops at low prices and selling at double the cost, limiting the farmers' profit margins and economic mobility.

Bardala is notable for its clean and abundant water basin, one of the largest in the West Bank, which presents a promising opportunity for water investments. Empowering local farmers to gain control over water resources could help them leverage these assets for independent economic gain. By addressing water management and securing access to this critical resource, Bardala's farmers could potentially free themselves from intermediaries and capitalize on more profitable agricultural practices, paving the way for a more sustainable and resilient community.

Marda is located near the Ariel settlement, which occupies more than 50% of the village's land. The community relies heavily on agriculture, and efforts have been made to enhance sustainability

¹ Community Resilience Plans Conducted by PAIC Organizations

through household-level compost production and the use of solar energy with the support of PHG. Environmental education is also promoted, with schools forming environmental clubs and restoring school gardens.

The primary issue for Marda is significant water wastage, which becomes particularly problematic during the summer months when water demand is highest, and shortages are most acute. In addition, the village faces challenges with organic waste management, given limited composting facilities. Flooding is another recurring problem due to Marda's location in a valley, leading to water damage in homes. Despite improvements to the water spring and construction of channels to direct floodwaters back to the spring, Marda still lacks comprehensive waste and water management systems.

Interviewees from the community suggested that the private sector could assist by investing in water storage and recycling facilities. There is also potential for expanding compost production if there are available shredding and storage facilities. Marda's existing water network could benefit from upgrades to allow for non-potable uses, and partnerships with olive oil producers could support initiatives to manage by-products like wastewater and olive pomace.

Bani Naeem is one of the oldest villages in Hebron Governorate, known for its 30-dunams agricultural nursery that supports tree planting and pastureland. The nursery is solar-powered, and the community has access to the facility. The village is impacted by quarry dust, which affects the environment and agricultural areas. Rainfall is low, with an average of less than 200 mm per year, and efforts are being made to study dust-resistant tree species in partnership with the Polytechnic University of Hebron.

There are two primary challenges; first, a severe shortage of water, compounded by a lack of proper sewage systems. The community relies on a few water sources, including an artesian well, which provides only a limited portion of the water needed for domestic use. Despite having a dam that could help with water storage, it requires repair. Additionally, the lack of rainfall exacerbates water shortages, impacting both residential needs and agricultural activities. The second primary issue is the increasing demand on electricity, due to the growth of controlled environment livestock raising, where almost 10% of the workforce of Bani Naeem work.

Bani Naeem's local leadership has suggested renewable energy projects, such as a 2-megawatt solar energy initiative, as a potential solution to high energy costs. There is also interest in reforestation projects using dust-resistant tree species to reduce the impact of quarry dust on pasturelands. The municipality has expressed willingness to explore private sector partnerships, particularly in renewable energy, though there are concerns about trust and local governance.

Al Ouja: During discussions with the Joint Council, it was highlighted that Al Ouja has implemented waste management projects, including a GIS system for tracking waste collection bins with the support of MA'AN Development Center. The community has dedicated lines for recycling carton and plastic waste and has recently introduced separate bins for paper and nylon. However, community engagement with waste management regulations remains low, and water bottles collected informally are often sold to Israeli companies.

The main challenge in Al Ouja is waste accumulation, especially as littering and limited engagement with waste regulations persist. Although waste segregation and tracking systems have been

introduced, these efforts have yet to fully address the community's waste management needs. Additionally, informal waste collection for profit limits the effectiveness of organized recycling initiatives, and further infrastructure improvements are needed.

The joint council suggested expanding the current waste segregation and tracking systems and enhancing community awareness to increase participation in waste management programs. Al Ouja's community members are open to partnerships with the private sector for developing waste infrastructure and would benefit from additional input on solutions to increase local compliance with waste management practices.

4.1. Existing Community Resilience Initiatives

The Palestinian Agricultural Institutions Coalition (PAIC) organizations have already implemented several projects within the target communities as part of the Environmental and Climate Justice Programme (ECJP). These initiatives provide valuable insights into the communities' needs, capacities, and potential for further development. Summary of Current Projects are provided below:

Table 3: List of studied GIAs implemented by PAIC

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| Al Ouja | <ul style="list-style-type: none"> - Implementation of a GIS system for tracking municipal waste collection bins, supported by MA'AN Development Center. - Establishment of a public garden demonstration farm for women farmers, introducing raised bed farming techniques. |
| Bardala | <ul style="list-style-type: none"> - Installation of solar power for the Bardala cooperative. - Creation of a public garden using recycled tires. - Rehabilitation of the water network at the cooperative. |
| Marda | <ul style="list-style-type: none"> - Rehabilitation of spring wells network. |
| Bani Na'eem | <ul style="list-style-type: none"> - Rehabilitation of artesian water wells. - Installation of solar panels for 30 dunams of greenhouses. |

While these efforts have made notable progress, they have also revealed important insights about the complexities of implementing such projects in the Palestinian context. The outcomes and lessons learned from these initiatives provide valuable guidance for future interventions and highlight areas where private sector engagement could potentially amplify impact. Below is a list of main outcomes and lessons learned:

- The GIS waste tracking system in Al Ouja has improved waste management efficiency, but community engagement with waste regulations remains low.
- Solar power installations have demonstrated the potential for renewable energy to address electricity shortages and reduce costs.

- Water infrastructure rehabilitation projects have highlighted the critical need for sustainable water management solutions.
- The public garden initiatives have shown the potential for community engagement in environmental projects and the importance of women's participation.

Through careful analysis of the existing community resilience initiatives and ongoing engagement with local stakeholders, several key areas have emerged where additional intervention and private sector involvement could significantly enhance community resilience. These gaps represent challenges that persist despite current efforts, while the accompanying opportunities highlight potential avenues for innovative solutions and partnerships. By addressing these areas, we can build upon the foundation laid by existing projects and create more comprehensive, sustainable approaches to environmental and climate justice in these communities. The following list outlines the primary gaps and opportunities identified across the key sectors of water management, renewable energy, agriculture, waste management, and community engagement:

Table 4: Identified gaps and opportunities

| | |
|-------------------------|---|
| Water Management | <ul style="list-style-type: none"> - While some water infrastructure has been rehabilitated, there is still a significant need for comprehensive water storage and distribution systems, particularly in Marda and Bani Na'eem. - Opportunity exists for private sector involvement in water treatment and bottling operations. |
| Renewable Energy | <ul style="list-style-type: none"> - The success of solar installations indicates potential for expansion, especially in Bani Na'eem where energy demand is increasing due to controlled environment livestock operations. |
| Agriculture | <ul style="list-style-type: none"> - Post-harvest losses and market access remain significant challenges, particularly in Bardala where farmers are dependent on intermediaries. - There is an opportunity to develop cold chain and storage infrastructure to improve farmers' market position. |
| Waste Management | <ul style="list-style-type: none"> - Despite improvements in tracking, waste accumulation remains a problem, especially in Al Ouja. - There is potential for private sector engagement in recycling initiatives, particularly for carton waste. |

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| Community Engagement | <ul style="list-style-type: none"> - While some projects have successfully involved community members, there is room for improvement in raising awareness and encouraging participation in environmental initiatives. |
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4.2. Stakeholders Analysis

This stakeholder analysis reveals a complex ecosystem of actors with diverse capacities, interests, and potential contributions to community resilience efforts. Effective engagement of these stakeholders will be crucial for the success and sustainability of proposed interventions. By aligning the interests of municipal councils, joint councils, cooperatives, private sector entities, and financing institutions, we can create synergies that maximize the impact of community resilience initiatives while addressing the unique challenges faced by these Palestinian communities. Understanding the roles, capacities, and interests of various stakeholders is crucial for developing effective partnerships and implementing sustainable community resilience initiatives. This analysis focuses on key stakeholder groups involved in the target communities.

Table 5: Stakeholders Analysis

| | | |
|---------------------------|----------------------|--|
| Municipal Councils | Roles and Capacities | <ul style="list-style-type: none"> - Local governance and basic service provision - Management of local infrastructure development and maintenance - Coordination with higher levels of government and external organizations |
| | Priorities | <ul style="list-style-type: none"> - Improving water access and infrastructure - Enhancing waste management systems - Supporting local economic development, particularly in agriculture - Addressing energy needs and exploring renewable options |
| | Challenges | <ul style="list-style-type: none"> - Limited financial resources and technical capacity |

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| | | <ul style="list-style-type: none"> - Restrictions imposed by Israeli occupation, particularly in Area C - Balancing immediate community needs with long-term resilience planning |
| Joint Councils | Roles and Capacities | <ul style="list-style-type: none"> - Coordination of services across multiple communities, particularly in waste management - Pooling resources for more efficient service delivery - Facilitation of knowledge sharing and best practices |
| | Priorities | <ul style="list-style-type: none"> - Improving efficiency in waste management - Expanding inter-community cooperation in water and energy projects - Implementing innovative solutions like GIS tracking for waste collection |
| | Challenges | <ul style="list-style-type: none"> - Coordinating diverse needs of multiple communities - Limited financial and technical resources - Navigating complex political and administrative landscapes |
| Cooperatives | Roles and Capacities | <ul style="list-style-type: none"> - Collective marketing of agricultural products - Sharing of resources and knowledge among farmers |

| | | |
|--------------------------------|----------------------|---|
| | | <ul style="list-style-type: none"> - Implementation of community-based projects |
| | Priorities | <ul style="list-style-type: none"> - Improving market access for members - Developing value-added processing capabilities - Expanding into new areas like renewable energy |
| | Challenges | <ul style="list-style-type: none"> - Limited access to capital and advanced technologies - Competition from larger, more established businesses - Balancing individual member needs with collective goals |
| Private Sector Entities | Roles and Capacities | <ul style="list-style-type: none"> - Provision of goods and services - Investment in local infrastructure and businesses - Potential source of innovation and efficiency |
| | Priorities | <ul style="list-style-type: none"> - Expanding market access for products and service - Improving local infrastructure to support business operations - Implementing corporate social responsibility initiatives |
| | Challenges | <ul style="list-style-type: none"> - Operating in a challenging political and economic environment - Navigating restrictions in Area C |

| | | |
|-------------------------------|----------------------|--|
| | | <ul style="list-style-type: none"> - Balancing profit motives with community needs |
| Financing Institutions | Roles and Capacities | <ul style="list-style-type: none"> - Provision of loans and financial services - Support for local economic development - Potential partners in blended finance models |
| | Priorities | <ul style="list-style-type: none"> - Ensuring financial viability of investments - Aligning investments with sustainable development goals - Expanding financial inclusion in underserved communities |
| | Challenges | <ul style="list-style-type: none"> - Assessing and mitigating risks in an unstable environment - Limited collateral and credit history of many local borrowers - Balancing social impact with financial returns |

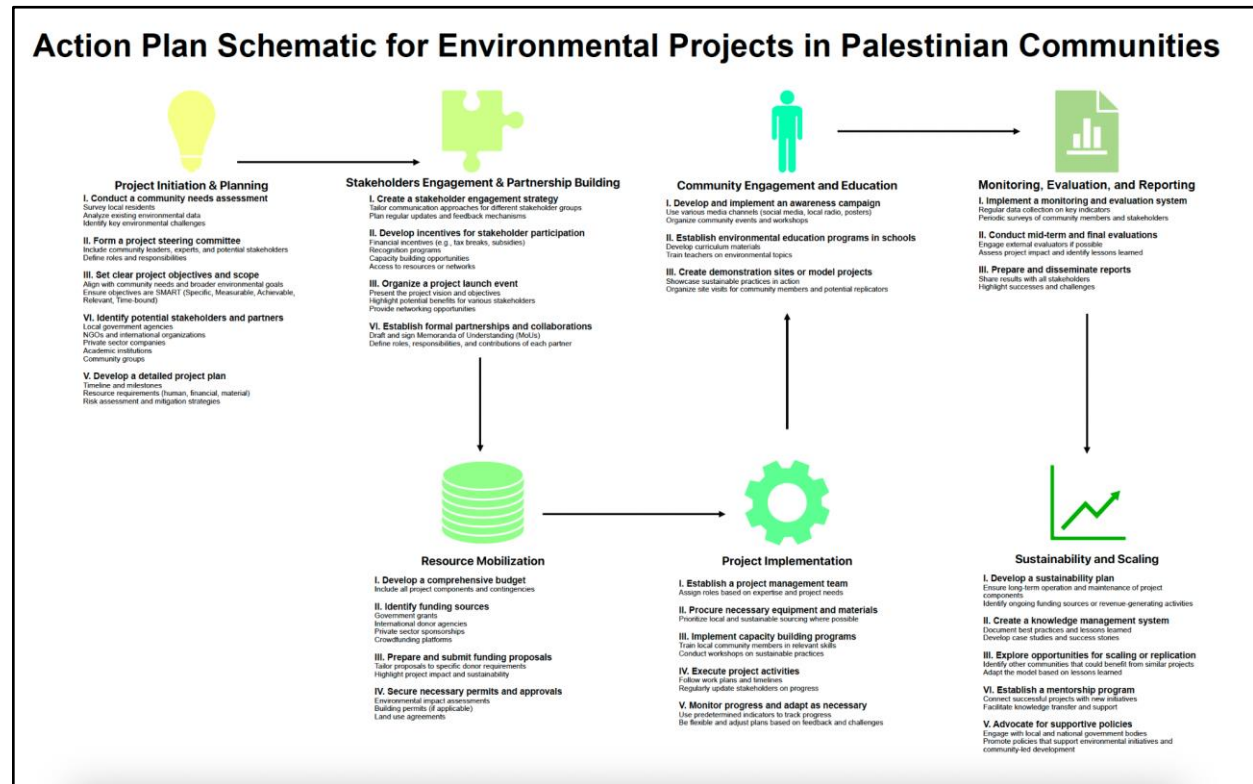
5. Proposed Interventions for private Sector Linkages

To create sustainable linkages between private sector actors and target communities, our analysis highlights that some projects, such as community-wide water rehabilitation, may not have a measurable ROI, despite their potential to attract private sector involvement. Therefore, our action plan suggests using a blended finance approach. In this model, non-ROI projects would be subsidized or funded through grants or charitable contributions. Meanwhile, projects with ROI potential would be connected to traditional financing options and treated as profitable investments. These ROI-driven projects would focus not on community infrastructure but on ventures that directly benefit farmers and other private sector participants interested in engaging in such initiatives.

Furthermore, sustainable linkages will need the willingness and capacity of several stakeholders to participate, including governing council/municipalities, CSOs, private sector, and financing

institutions. The Sustainable Development Goals “SDGs” provide an enabling environment for developing innovative multi-stakeholder partnership approaches, which was mostly adopted by PAIC organizations in their community resilience plans, but lack a structured involvement of the private sector.

Figure 1: Community Resilience Ecosystem



5.1. Post-Harvest Interventions at Bardala Community

Community Objective: Farmers dependency on intermediaries to sell has limited their ability to grow their sales and make fair terms to their efforts and challenges and their continuously increasing expenses. This issue goes back to the fact that farmers don't have the storage infrastructure to store their produce, or a cold chain network to access new markets. In order to reduce post-harvest losses, increase market access, and strengthen community resilience by enhancing farmers' conditions and ability to grow their business.

Description: a holistic approach would integrate key components, allowing smallholder farmers to aggregate, store, and manage their produce more efficiently. The aggregation and storage facilities would be strategically placed within the community, ensuring farmers have a dedicated space to store produce during peak harvest, which would help reduce spoilage and maintain product quality. Logistics support would streamline the movement of produce from these facilities to local and regional markets, enabling farmers to sell directly to buyers, thus bypassing traditional intermediaries. Technology could further enhance this system by developing digital platforms that provide real-time updates on weather conditions, market prices, and crop advisory services. These digital solutions would not only empower farmers with timely information but also help them align supply with market demand effectively. Finally, optional value-added processing units could allow for the transformation of raw crops into preserved or enhanced products, increasing both shelf life and market value.

Potential private sector actors who could be engaged in this model include:

- **Farmers:** Smallholder farmers would serve as primary beneficiaries, as they gain better market access and higher incomes through improved storage and logistics.

In Kenya, Safaricom's "DigiFarm" platform connects farmers to financial services, inputs, and buyers. Safaricom generates revenue by charging transaction fees, while farmers gain better access to markets and credit.

<https://digifarmkenya.com/>

- **Logistics Companies:** Involved in transporting goods from rural aggregation points to urban markets, they play a crucial role in reducing transportation costs and maintaining the quality of perishable goods.
- **Real Estate Developers and Investors:** These stakeholders could be instrumental in funding or constructing aggregation centers and storage facilities, creating infrastructure that benefits the community and supports sustainable food systems.
- **Technology Companies:** Developing digital platforms to provide information on weather, market trends, and crop advisory services, tech firms can innovate solutions that streamline market access and improve farmer decision-making.

Partnerships: Cooperatives must play a pivotal role in co-investing with private sector actors in the post harvest intervention program, in order to represent farmers and guarantee fair terms to farmers.

Financing Options: To attract private sector interest, a *Blended Finance Model* that combines donor or philanthropic funding with private investment is vital. This model reduces risk for private investors, encouraging them to invest in projects with lower ROI but high social impact. Financing options are the following:

1. Corporate CSR
2. Microfinance institutions or banks that provide low-interest loans to climate friendly and environmental operations.
3. Leasing Companies: Co-finance transportation vehicles to local cooperatives or municipalities.

Communities like Bardala can benefit from such an intervention, where 90% of the workforce are farmers. These farmers have a huge dependency problem on intermediaries, and according to the municipal council and cooperative of bardala, more than 80% of these farmers can only sell through these intermediaries. The following is an example of post harvest facility to create in Bardala community and neighboring communities:

Preliminary Budget and Resource Requirements:

- Estimated total investment: TBD
- Land allocation: 2-3 dunams for facility construction
- Technical expertise: Agricultural economics, supply chain management, and marketing specialists

5.2. Water Management and Bottling for Marda Community

Description

This intervention focuses on leveraging Marda's spring water resources to address water scarcity issues and create economic opportunities. The project includes:

1. Spring water bottling operations: Establish a modern bottling facility to process and package spring water for local and regional markets.
2. Water quality assessment and improvement: Conduct comprehensive testing and implement necessary treatments to ensure water meets safety standards.
3. Distribution and marketing strategy: Develop a plan to distribute bottled water to local communities and explore broader market opportunities.

Stakeholders Involved and Their Roles:

- Arwa (NBC Group): Invest in and operate the bottling facility
- Marda Local Council: Facilitate space rental and community engagement
- PHG: Conduct water quality testing and provide technical expertise
- Financing institutions: Provide capital for facility establishment

Expected Outcomes and Benefits:

- Improved access to clean drinking water for the local community
- Creation of local employment opportunities
- Potential revenue stream for community development projects

Potential Challenges and Mitigation Strategies:

- Ensuring sustainable water extraction: Conduct thorough hydrological studies and implement strict monitoring
- Balancing commercial interests with community needs: Establish a clear agreement on water allocation and profit-sharing
- Regulatory compliance: Work closely with relevant authorities to meet all legal and health standards

Preliminary Budget and Resource Requirements:

- Estimated investment: TBD
- Land requirement: 1-2 dunams for bottling facility
- Technical expertise: Hydrologists, water treatment specialists, and marketing professionals

5.3. Renewable Energy Farm for Bani-Naeem Community

| Description |
|-------------|
|-------------|

This project aims to establish a 2.5 MegaWatts solar farm in Bani-Naeem to address energy shortages and support the growing demand from controlled environment livestock operations. The intervention includes:

1. Solar farm development: Installation of photovoltaic panels and necessary infrastructure
2. Integration with local power grid: Ensuring seamless connection and distribution of generated electricity
3. Community benefit-sharing model: Developing a framework for equitable distribution of benefits to the local community

Stakeholders Involved and Their Roles:

- Renewable Energy Provider (e.g., 3K Solar): Design, install, and maintain the solar farm
- Bani Naeem Municipal Council: Provide land and facilitate necessary permits
- Bani Naeem Cooperative: Represent community interests and manage benefit distribution
- Financing institutions: Provide capital through grants or low-interest loans

Expected Outcomes and Benefits:

- Increased energy security and reduced power outages
- Lower electricity costs for local businesses and households
- Potential income generation for the community through excess power sale

Potential Challenges and Mitigation Strategies:

- High initial capital costs: Explore blended finance options and phased implementation
- Technical maintenance: Provide training for local technicians and establish a long-term maintenance contract
- Land use concerns: Conduct thorough community consultations and explore dual-use options (e.g., agrivoltaics)

Preliminary Budget and Resource Requirements:

- Estimated investment: TBD
- Land requirement: Approximately 5-7 dunams
- Technical expertise: Solar energy engineers, electrical engineers, and community engagement specialists

5.4. Building the Capacity of Joint Councils

The waste sector has its own strategic level agenda in Palestine, found in the National Strategy for Solid Waste Management which was adopted in 2017. At the municipal and local government level, article 15 of the Local Authorities Law No. 1 (1997) places responsibility of waste management to local authorities in their own jurisdiction: the collection of solid waste in public spaces, its transportation and disposal, the management of a landfill facility as well as the option to provide services through a private contractor or to join with other municipalities through a joint service contract. However, on the ground these high-level strategies do not translate to actionable items.

Private Sector's Role

In general, the private sector participation in these processes is limited. There are some agreements with private companies to run transfer stations, composting plants, or landfills. This is usually in the form of public-private partnerships (PPP) such as the one established in 2013 between the Hebron & Bethlehem JSC and a Greek consortium, which covers the operation and maintenance of the Al-Minya Landfill, the Hebron and Tarqumiya transfer stations, as well as the transportation services. However, surveys have shown that all Joint service councils were dependent on waste collection fees as the only income source and 80% of local government units (LGUs) were lacking the financial resources to promote PPPs.²

Furthermore, there is no significant private facility dealing with recycling: the market is currently informal and risky, and the legislation still does not provide incentives for the private sector to take a long-term interest in this sector.

The great majority of pilot projects implemented in the last 10 years mainly focused on composting, as well as some plastic and paper/cardboard recycling. Over the last few years, some initiatives and pilot projects that took separating organic waste from municipal waste as an important element of integrated solid waste management were implemented. There is a growing interest for electronic waste due to the negative ecological consequences and the health problems its treatment and disposal provoke in the areas concerned.³

Potential Intervention

During the implementation of “Engage and create linkages with private sector for climate change adaptation and mitigation environmental actions”, 7 shortlisted candidates of private sector companies out of 10 are operating or proposing an intervention in the waste sector including the following operation types:

1. Biogas digester to turn organic waste from food processing into cooking gas and gas to electricity through a converter connected to the digester.

² Engaging private sector in the ECJP

³ Thöni, V. & Matar, S. (2019). *Solid Waste Management in the Occupied Palestinian Territory West Bank Including East Jerusalem & Gaza Strip*. <https://bit.ly/3A2kIas>

2. Recycling carton waste from cartons manufacturers into egg carton packaging.
3. Recycling vegetables waste into animal feed.
4. Recycling chicken manure into organic compost.
5. Recycling sludge into organic compost.
6. Recycling papers, carton waste and palm fronds into toilette and kitchen papers.
7. Recycling of plastic into nylon bags.

Proposed approach

These interventions shared multiple challenges that some companies provided a feasible and a sustainable solution to, and some of them were rejected for the lack of evidence to support the feasibility and sustainability aspects of these projects. These challenges are:

- High cost of waste collection, as waste is being collected from several locations in the same cities and sometimes from different locations in different cities.
- High cost of waste sorting.

While these challenges were solved either with companies that produce their own waste and thus the collection logistics cost would not exist in the first place or were solved by direct contract with waste suppliers in different areas which would increase logistics cost and emissions from logistics activities, but would provide a constant supply to companies working in the waste sector.

Building capacity within the JSCs to make more decisions about private sector entities and develop a strong pipeline of projects is essential for the involvement of the private sector in climate action. This must include developing incentive schemes and streamlining the sales of sorted waste which are both needed to attract the private sector.

The JSCs need to operate in a financially sustainable way by securing channels to sell and distribute the sorted waste, while the private sector actors need access to an affordable sorted waste to use for their manufacturing processes, to be able to produce environmentally and financially sustainable products.

This intervention would require a mapping study for the demand from the private sector side and the supply from the JSC's and municipalities side to identify challenges and opportunities and recommended interventions.

Pilot Description with Al Ouja Community

This intervention aims to address waste management challenges in Al Ouja by establishing a carton recycling system. The project components include:

- Carton waste collection system: Implementing a segregated waste collection process for carton materials
- Recycling facility establishment: Setting up a small-scale recycling plant to process collected carton waste

- Integration with existing waste management practices: Aligning the new system with current GIS-based tracking and collection methods

Stakeholders Involved and Their Roles:

- National Carton Company (NCI): Collect and process carton waste
- MA'AN Development Center: Facilitate implementation and community engagement
- Al Ouja Joint Council: Integrate the new system with existing waste management practices
- Financing Institutions (e.g., Padico Holding Group): Subsidize recycling facility establishment

Expected Outcomes and Benefits:

- Reduced waste accumulation and improved environmental health
- Creation of local job opportunities in waste management and recycling
- Potential revenue generation from recycled materials

Potential Challenges and Mitigation Strategies:

- Ensuring consistent waste segregation: Conduct extensive community education and awareness campaigns
- Operational sustainability: Develop partnerships with larger recycling facilities for economies of scale
- Market fluctuations for recycled materials: Diversify end-products and explore long-term contracts with buyers

Preliminary Budget and Resource Requirements:

- Estimated investment: TBD
- Land requirement: 1-2 dunams for recycling facility
- Technical expertise: Waste management specialists, recycling technicians, and community outreach coordinators

5.5. Adaptation Investment Standards Label

Description

In order to capitalize on the efforts of supporting local produce, and local products that depend on a shorter supply chain, as most of its raw materials come from local suppliers, this intervention calls for a new standard label, with a stamp on products for local businesses who follow the ECJP's standards. This standard can be developed with the Palestinian Standards Institute. The standards must focus on adopting operational processes that would enhance the use of energy, water, waste management, and the transformation of local raw materials into locally made products. This stamp can be marketed for the Palestinian consumers, by raising awareness of the importance of

buying products that have this stamp, and its effect on the climate justice issue in Palestine, and its positive butterfly effect on the lives of Palestinian businesses and individuals.

Stakeholders Involved and Their Roles:

- **Palestine Standards Institute:** The institute develops new standards continuously for local businesses, mostly for exporting purposes, but does also provide standards for any business operating in the manufacturing mandate. This institute can be the first destination to start creating the required standards.
- **Palestine Federation of Industries (PFI):** PFI as a central communicator and representative for more than 1,800 businesses in the productive sectors, can open the conversation with its members, and facilitate a pilot with some businesses, focusing at the beginning on the food manufacturing businesses.
- **Palpro:** As a specialized laboratory for food testing and packaging testing, Palpro must play a supporting role in such an initiative, supporting in designing the stamp label, and start integrating this label in the design of hundreds of businesses who come to Palpro to seek help in developing their products.

Expected Outcomes and Benefits:

Encouraging businesses on sourcing local raw materials from local suppliers or from recycled waste, would benefit the environment through 1) shortening supply chain and minimizing transportation cost and emissions, and 2) supporting local businesses and contributing to creating more jobs in the productive sectors.

Potential Challenges and Mitigation Strategies:

Adoption by Palestinian Consumers: Average consumer in Palestine looks at environmental issues as a less of a priority compared to other challenges such as occupation and declining economic situation. In order to avoid this problem, the standard stamp/label must be marketed and connected to local produce, contributing to creating jobs in Palestine, and contributing to the resilience of the community against the occupation.

6. Implementation Strategy

The successful execution of the proposed interventions requires a well-structured implementation strategy that addresses stakeholder engagement, financing mechanisms, and project management. This chapter outlines the key components of this strategy to ensure effective and sustainable implementation of the community resilience initiatives.

6.1. Stakeholder Engagement Plan

To ensure effective and transparent communication with all stakeholders, a multi-faceted approach will be implemented. This strategy includes regular stakeholder meetings, with quarterly sessions for key stakeholders and bi-annual gatherings for all involved parties, providing opportunities for face-to-face discussions and collaborative decision-making. Monthly progress reports will be

distributed via email and made available on an accessible online platform, keeping all stakeholders informed of project developments and milestones. A dedicated project website and active social media channels will be established to provide real-time updates, fostering a sense of ongoing engagement and allowing for immediate dissemination of important information. Additionally, community town halls and focus groups will be organized regularly to gather local feedback, address concerns, and ensure that the voices of community members are heard and integrated into the project's evolution. This comprehensive communication strategy aims to maintain open lines of dialogue, promote transparency, and cultivate a sense of shared ownership among all stakeholders throughout the project's lifecycle.

Table 6: Stakeholders roles and responsibilities

| Stakeholders | Roles |
|-------------------------|--|
| PAIC Organizations | Overall project coordination, technical expertise, and community liaison |
| Local Councils | Facilitate local permissions, community mobilization, and infrastructure support |
| Private Sector Partners | Provide expertise, investment, and operational management of interventions |
| Cooperatives | Represent community interests, mobilize local resources, and participate in project implementation |
| Financing Institutions | Provide financial support, advise on financial sustainability, and monitor investments |
| Community Members | Active participation in project activities, provide feedback, and ensure local ownership |

To build and maintain strong partnerships, a comprehensive strategy will be implemented. This includes developing clear MOUs outlining roles and expectations for each partner, establishing a representative partnership steering committee, implementing a conflict resolution mechanism, and organizing regular partnership-building events and workshops. These measures will ensure transparency, facilitate effective communication, and foster a collaborative environment where stakeholders can share knowledge, address challenges, and strengthen relationships throughout the project's duration. This approach aims to create resilient partnerships capable of adapting to changing needs and sustaining long-term cooperation.

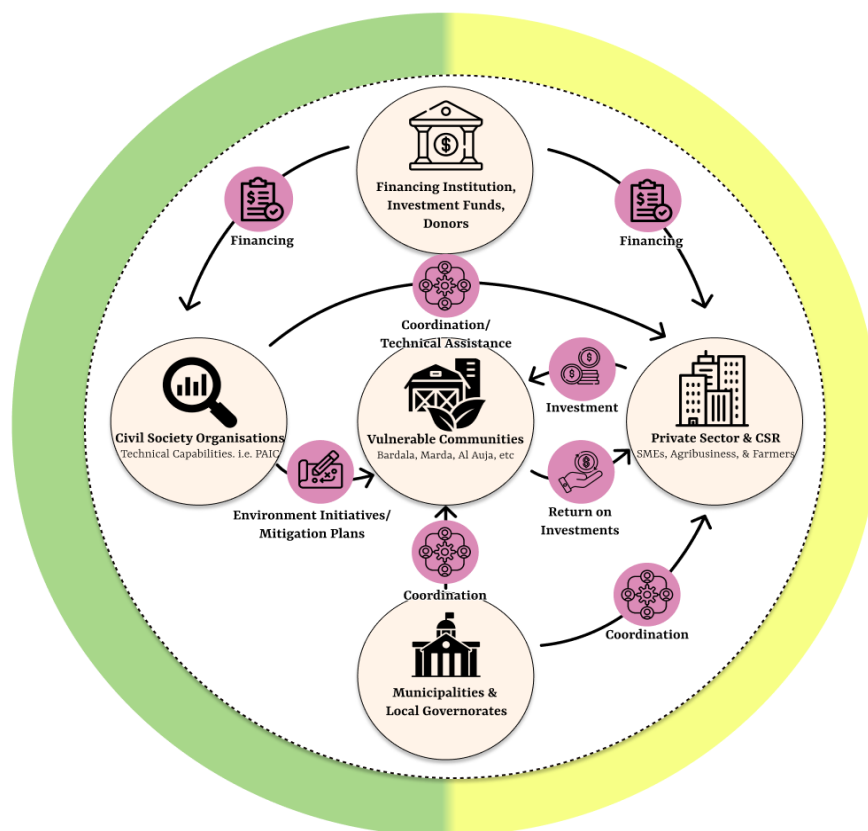
6.2. Financing Mechanisms

The implementation of community resilience projects in Palestine requires an innovative financing approach that addresses the unique challenges and opportunities in the region. To this end, we

propose adopting a blended finance model that combines public, philanthropic, and private funding sources. This approach aims to de-risk investments for private sector partners while ensuring community benefit and project sustainability.

Central to this strategy is the differentiation between ROI (Return on Investment) and non-ROI projects. ROI projects are those with clear potential for financial returns, scalability, and market demand. These projects are more likely to attract traditional financing and private sector investment. Non-ROI projects, while essential for community resilience, may lack direct financial returns. Examples include certain infrastructure improvements and capacity-building initiatives that are crucial for long-term community development but may not generate immediate profits.

Figure 2: *Community Resilience Blended Finance Model Illustration*



For non-ROI projects, grants and subsidies will be pursued from various sources. These include international development agencies such as USAID, GIZ, and SIDA; Palestinian government funds allocated for community development; Corporate Social Responsibility (CSR) programs of large Palestinian and international companies; and environmental and climate-focused foundations and NGOs. These funding sources can provide the necessary capital for projects that prioritize social and environmental impact over financial returns.

To attract traditional financing for ROI-driven projects, several strategies will be employed. First, comprehensive business plans will be developed that highlight potential returns and outline clear risk mitigation strategies. Initial grant funding will be leveraged to demonstrate project viability, using early successes to attract additional private investment. A balanced project portfolio will be

created, combining high-risk and low-risk investments to appeal to a diverse range of investors. Finally, partnerships will be established with local banks and microfinance institutions to create tailored financial products that meet the specific needs of the projects and communities.

6.3. Project Management and Coordination

Roles and responsibilities of key organizations:

- We Effect: Overall program oversight, donor liaison, and strategic guidance
- PAIC Organizations: Day-to-day project management, technical implementation, and community engagement
- MA'AN Development Center: Lead coordination for waste management interventions
- ARIJ: Lead coordination for agricultural and water management interventions
- PHG: Technical support for water-related projects
- LRC: Support for land-use and community rights issues

Project management structure and decision-making processes:

- Establish a Project Steering Committee (PSC) with representatives from We Effect, PAIC organizations, and key stakeholders
- Implement a tiered decision-making process:
 1. Day-to-day decisions made by project managers
 2. Significant operational decisions made by PAIC organization leads
 3. Strategic decisions and major changes approved by PSC
- Develop a clear escalation pathway for issue resolution

Coordination mechanisms between different interventions and communities:

- Appoint a central Program Coordinator to oversee all interventions across communities
- Implement a standardized reporting system to track progress and identify synergies between projects
- Organize quarterly cross-community learning exchanges to share experiences and best practices
- Develop a centralized knowledge management system to document lessons learned and facilitate information sharing
- Establish thematic working groups (e.g., water management, renewable energy) to encourage collaboration across interventions and communities

7. Monitoring and Evaluation

A robust monitoring and evaluation (M&E) framework is essential to track progress, measure impact, and ensure the successful implementation of the proposed interventions. This chapter outlines the key components of the M&E strategy, including performance indicators, data collection methods, reporting mechanisms, and evaluation plans.

7.1 Key Performance Indicators (KPIs)

For each intervention, specific KPIs have been developed to measure progress and impact. The Post-Harvest Interventions at Bardala Community will be assessed by the percentage increase in farmers' income, reduction in post-harvest losses, number of farmers utilizing the new facilities, and volume of produce processed through the distribution facility.

For the Water Management and Bottling project in Marda Community, KPIs include the volume of water bottled and distributed, number of households with improved access to clean water, revenue generated from water bottling operations, and water quality indicators such as bacterial count and mineral content.

The Renewable Energy Farm for Bani-Naeem Community will be evaluated based on total energy generated, reduction in community energy costs, number of households and businesses benefiting from the solar farm, and CO2 emissions avoided.

Lastly, the Carton Recycling project in Al Ouja Community will be measured by the volume of carton waste collected and recycled, reduction in overall waste sent to landfills, number of jobs created in the recycling sector, and revenue generated from recycled materials.

7.2 Methods and Frequency of Data Collection

To ensure accurate and timely monitoring, a variety of data collection methods will be employed. Baseline surveys will be conducted at the start of each intervention to establish initial conditions. Regular monthly field visits by project staff will be carried out to collect data and observe progress. Where possible, automated data collection using sensors and digital tools will be implemented for real-time data gathering, particularly for the solar farm energy production.

Community surveys will be conducted quarterly to gather feedback and measure community satisfaction. Monthly financial statements from project operations will be collected, and implementing partners and stakeholders will submit quarterly reports. This multi-faceted approach will ensure a comprehensive understanding of project progress and impact.

7.3 Reporting Mechanisms and Feedback Loops

A comprehensive reporting system will be implemented to ensure transparency and facilitate continuous improvement. Monthly progress reports providing brief updates on key activities and KPIs will be shared with all stakeholders. More in-depth quarterly reports will analyze progress, challenges, and propose adjustments as needed. Annual reports will offer a comprehensive overview of project achievements, lessons learned, and plans for the coming year.

An online dashboard displaying real-time key metrics will be accessible to all stakeholders, promoting transparency and enabling quick decision-making. Regular feedback sessions with

community members and partners will be held to gather qualitative insights. Quarterly adaptive management meetings will be conducted to review data and make necessary adjustments to project implementation, ensuring the interventions remain responsive to community needs and changing circumstances.

7.4 Plan for Mid-term and Final Evaluations

To ensure objective assessment of the interventions' impact and effectiveness, both mid-term and final evaluations will be conducted. The mid-term evaluation, scheduled for the end of Year 2, will be carried out by an external evaluation team. It will focus on the relevance, efficiency, and early signs of effectiveness of the interventions. The evaluation will involve document review, field visits, stakeholder interviews, and data analysis, culminating in a detailed report with recommendations for project adjustments.

The final evaluation, to be conducted at the end of Year 4, will provide a comprehensive assessment of all interventions. It will evaluate the projects based on criteria of relevance, effectiveness, efficiency, impact, and sustainability. This evaluation will involve extensive data analysis, community-wide surveys, in-depth stakeholder interviews, and field observations. The output will be a final report documenting achievements, challenges, lessons learned, and recommendations for future initiatives.

Both evaluations will adhere to international standards and best practices in development evaluation. The results will be widely disseminated to all stakeholders and used to inform future community resilience projects in Palestine and beyond.

8. Risk Assessment and Mitigation Strategies

Effective risk management is crucial for the success of community resilience projects in the complex environment of Palestine. This chapter outlines potential risks, their likelihood and impact, and proposes mitigation strategies and contingency plans.

8.1 Identification of Potential Risks

The project faces various political, economic, and environmental risks. Political risks include escalation of conflict with Israel, changes in local government affecting project support, and shifts in international donor priorities. Economic risks encompass currency fluctuations, economic downturns impacting private sector engagement, and unexpected increases in costs. Environmental risks include extreme weather events, unforeseen environmental degradation, and discovery of site contamination.

8.2 Assessment of Likelihood and Potential Impact

Each risk has been assessed based on its likelihood of occurrence and potential impact on project outcomes, using a scale of Low, Medium, and High. High-priority risks identified include conflict escalation (Medium likelihood, High impact), donor priority shifts (Low likelihood, High impact),

economic downturns (Medium likelihood, High impact), and extreme weather events (Medium likelihood, High impact).

8.3 Mitigation Strategies for High-Priority Risks

For conflict escalation, strategies include developing strong relationships with local authorities, creating flexible work plans, and establishing remote management protocols. To mitigate donor priority shifts, the project will diversify funding sources, regularly communicate impacts, and build strong local ownership. For economic downturns, contingency budgets will be developed, community volunteer components strengthened, and innovative financing mechanisms explored. To address extreme weather events, climate resilience measures will be incorporated into all project designs, early warning systems developed, and emergency response plans created for each site.

8.4 Contingency Plans for Unforeseen Challenges

To address unforeseen issues, an Emergency Response Team will be established, comprising representatives from We Effect, PAIC organizations, and community leaders. A flexible funding allocation will set aside 5-10% of the project budget as a contingency fund. An adaptive management approach will be implemented through regular project review meetings. Strong communication channels will be maintained with all stakeholders to facilitate rapid information sharing and collaborative problem-solving. Capacity building initiatives will focus on enhancing local resilience, while detailed documentation of challenges and solutions will inform future responses and contribute to ongoing learning.

9. Timeline and Milestones

The project implementation is structured over a 48-month period, with four major interventions operating on parallel but staggered timelines to optimize resource utilization and allow for cross-learning between projects.

9.1 Detailed Timeline for Each Intervention

- Post-Harvest Interventions at Bardala Community (Months 1-36) Planning and stakeholder engagement phase in months 1-6 will establish community buy-in and finalize technical specifications. Construction and installation will occur during months 7-18, followed by an 18-month operational phase focused on capacity building and optimization.
- Water Management and Bottling for Marda Community (Months 3-42) Beginning with a 6-month feasibility study and water quality assessment, the project will move through a 14-month infrastructure development phase before transitioning to production and distribution network establishment in months 25-42.
- Renewable Energy Farm for Bani-Naeem Community (Months 6-48) Site assessment and regulatory approvals will consume months 6-12, followed by an 18-month construction

phase. The final 18 months will focus on energy production optimization and community benefit distribution systems.

- Carton Recycling for Al Ouja Community (Months 1-30) Initial waste audit and system design will take 4 months, followed by 8 months of infrastructure setup and community education. Full-scale operations and market development will run from months 13-30.
- Adaptation Investment Standard Label (1-12 months) planning and communicating with stakeholders, and creating a concept note after engaging stakeholders to raise funding. After this period, certain businesses that follow the basic standards of the ECJP program can be studied further, and a draft of standards must be created to be tested with the Institute of Palestinian Standards, this will take 3- 6 months. An awareness campaign must be created to target consumers in Palestine for several products, which can take from 1-3 months, and Meanwhile, Palpro can support the design and the integration of these businesses packaging and branding, which can be done in parallel with the awareness campaign.

9.2 Key Milestones and Decision Points

Project-wide milestones include:

- Month 3: Implementation plans finalized
- Month 6: Funding commitments secured
- Month 12: All interventions in construction/setup phase
- Month 24: Mid-term evaluation
- Month 36: All interventions operational
- Month 48: Final evaluation

9.3 Dependencies Between Project Components

Critical interdependencies include resource sharing between interventions, knowledge transfer opportunities, and coordination of cross-cutting activities like capacity building. Success metrics from early-starting projects will inform implementation strategies for later phases. The water and energy projects particularly require coordination to ensure optimal resource utilization.

9.4 Flexibility Considerations

The timeline incorporates several adaptability measures to ensure resilience against potential disruptions and changes. A 10-15% time buffer is built into each project phase to accommodate unexpected delays, while quarterly review points allow for regular timeline adjustments based on progress and changing circumstances. The implementation follows a modular approach, enabling scaling up or down as needed, and alternative scenarios have been developed to address potential major disruptions. Clear change management protocols have been established to streamline

decision-making processes when timeline modifications are necessary. These flexibility measures ensure the project can maintain momentum while adapting to challenges that may arise during implementation.

TASK II | Awareness Campaign

1. Introduction

Supporting farmers in vulnerable communities is a key accelerator for all climate resilience interventions, particularly in the areas of water, energy, and waste management. These communities, which consist largely of farmers, agribusinesses, labourers, and young demographics dependent on breadwinners, rely heavily on stable income sources for a living. By empowering the workforce, particularly those working in agriculture and related sectors, we provide them with the means to improve their economic well-being. This economic stability will, in turn, allow them to invest in climate resilience projects, such as water conservation, renewable energy adoption, and sustainable waste management systems.

Moreover, when farmers and local businesses are better supported through investments and market access, they are better positioned to contribute to larger community efforts. With higher incomes, they can collaborate with municipalities and cooperatives to ensure that water, energy, and waste interventions are not only implemented but also maintained and optimised over time. In this way, boosting the local workforce through targeted financial and capacity-building support creates a virtuous cycle, where economic growth leads to stronger engagement with climate resilience efforts and community sustainability.

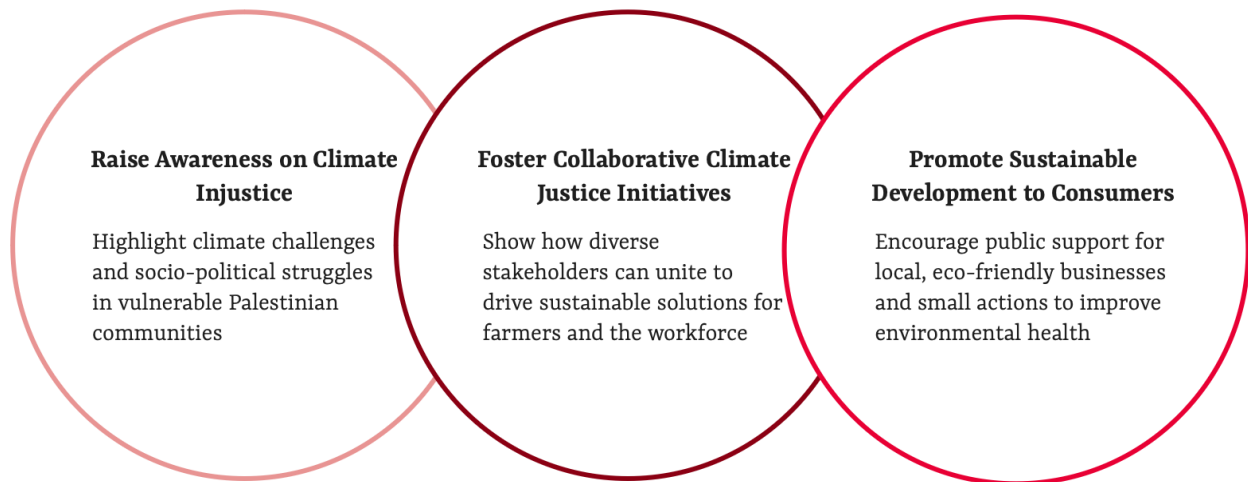
One key focus of this campaign is incentivising the public to buy from these local businesses by promoting the new ECJP standards label, which signals that the products are locally sourced, environmentally friendly, and contribute to economic resilience in Palestine.

The campaign also emphasises the importance of visible content to engage various stakeholders, including businesses, individuals, donors, and media outlets. By showcasing success stories, word-of-mouth promotion will drive further engagement. The campaign will also tap into targeted channels, such as umbrella organisations representing local businesses, offering workshops, newsletters, and demonstrations of climate justice projects. Through these efforts, the ECJP campaign seeks to create a collaborative approach to tackling climate injustice and promoting sustainable development.

2. Campaign Objectives

The ECJP campaign focuses on addressing the critical intersection between climate challenges and socio-political struggles in Palestine. It aims to raise awareness, promote collaboration among key stakeholders, and encourage sustainable practices that can mitigate the impact of climate change on vulnerable communities. The following objectives outline the campaign's core areas of focus, each contributing to a broader understanding and response to climate injustice in the region.

Figure 3: ECJP Campaign Objectives



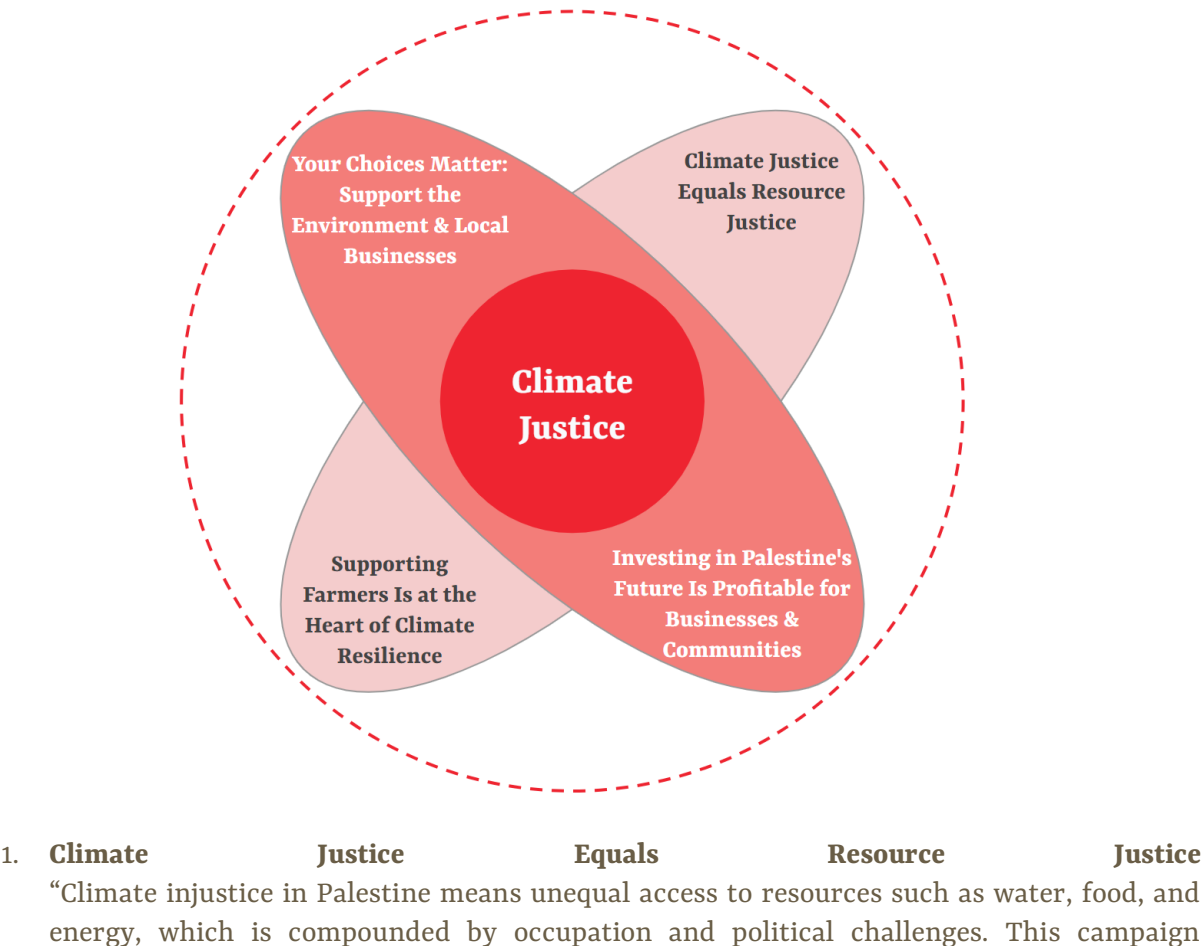
1. **Raise Awareness about Climate Injustice and Sustainable Development in Palestine:** The primary goal of this campaign is to build awareness around the intersection of climate challenges and the socio-political struggles that Palestine, particularly its vulnerable communities, faces. In remote areas and among marginalized groups such as women and youth, climate change exacerbates existing struggles, like restricted access to water, energy, food, and waste management. These challenges, imposed in part by the occupation, underline the concept of *climate injustice*—the unequal burden of resource scarcity and environmental degradation. The campaign will highlight how adaptation investments offer solutions by addressing these interlinked issues, fostering a deeper understanding of how environmental and political struggles converge in Palestine's most vulnerable regions.
2. **Highlight the Impact and Potential of Collaborative Climate Justice Initiatives to Targeted Stakeholders:** To demonstrate how diverse stakeholders—community representatives, private sector businesses, financiers, and donors—can come together to tackle climate injustice. By fostering innovation through business models, advanced technology, and collective action, these stakeholders can drive impactful solutions. The campaign will emphasise the need for inclusive projects that prioritise the voices and needs of smallholder farmers, who are among the hardest hit by climate change and economic instability. These farmers, often reliant on intermediaries to sell their produce under difficult market conditions, stand to benefit from more equitable market access and sustainable farming practices. The goal is to show how these collaborative initiatives can empower farmers while delivering broad benefits across the Palestinian workforce, especially during turbulent times like the ongoing war.
3. **Promote the Benefits of Investing in Sustainable Development to the Palestinian Public:** Another key objective is to promote the tangible benefits of investing in sustainable development to the Palestinian public, with a focus on how individual behaviour can play a role in driving change. The campaign will target consumers to raise awareness about the positive impact of supporting local businesses that shorten supply chains and adopt environmentally-friendly practices. It will also highlight how small actions—such as separating waste at the source or choosing local produce—can lead to substantial

improvements in waste management and the overall environmental health of communities. By fostering a sense of responsibility and participation among consumers, the campaign aims to create a cultural shift that supports sustainable business practices and helps build resilience against climate change.

3. Key Messages

From supporting local, eco-friendly businesses to adopting sustainable practices at home, every action taken by Palestinian consumers contributes to a broader movement towards resilience. By highlighting the intersection of climate challenges with socio-political struggles, particularly in vulnerable communities, the campaign shows that resource justice—fair access to water, energy, and food—can be achieved through small, yet powerful, actions. The following messages are divided into two components, the first two messages are the foundation of the campaign, aiming to raise awareness and fundamental concepts, while the other two act as call to action – to illustrate the tangible steps individuals and businesses can take to manifest the broader objectives of the campaign.

Figure 4: Climate Justice Key Messages



emphasises that adaptation investments, focusing on sustainable water, energy, and waste management, can empower vulnerable communities like women, youth, and remote areas to overcome resource inequities. When you support climate justice, you're also supporting fairness in the distribution of essential resources.”

2. **Supporting Farmers Is at the Heart of Climate Resilience**
“Smallholder farmers, often trapped by difficult market conditions and intermediaries, are essential to Palestine's food security and climate resilience. The campaign showcases how farmers can benefit from direct market access, new technologies, and climate-friendly practices, enabling them to retain more value from their produce. By improving the livelihoods of farmers, we strengthen Palestine's agricultural backbone during times of crisis and beyond.”
3. **Investing in Palestine's Future Is Profitable for Businesses and Communities**
“Investing in climate-resilient businesses is not just good for the environment—it's good for business. This campaign highlights how private sector actors, both local and international, can gain a competitive advantage by aligning with climate justice initiatives. From reducing waste to adopting renewable energy, companies that adopt sustainable practices can open new revenue streams and enhance their brand's reputation, contributing to long-term economic stability in Palestine.”
4. **Your Choices Matter: Support Local Businesses and the Environment**
“Palestinian consumers have the power to drive change by supporting local, eco-friendly businesses. This campaign encourages individuals to rethink their consumption habits—choosing local produce, separating waste, and backing businesses that prioritise sustainability. By making small changes in your everyday life, you help reduce the carbon footprint, strengthen local businesses, and conserve vital resources like water and energy for future generations.”

4. Target Audience

Each segment will have tailored messaging and methods for engagement to ensure the awareness campaign can reach its objectives effectively. The proposed activities will ensure that every stakeholder understands their role in building a more resilient and sustainable future for Palestine.

1. **Private Sector Companies:** Private sector engagement is a critical pillar for driving the success of sustainable climate justice projects. Both local and international businesses can play a role in two major ways: as investors in green projects and as beneficiaries of a more resilient local market. These businesses can offer solutions by integrating environmental sustainability into their supply chains or product offerings. For example, local Palestinian companies in the food and beverage industry could see value in aligning with environmental goals by adopting eco-friendly practices, such as reducing solid and organic waste and investing in renewable energy. Additionally, international firms and big corporations with an interest in corporate social responsibility (CSR) have a vested interest in contributing to

Palestine's climate resilience and could use this as an entry point to gain positive brand recognition.

A targeted awareness campaign for this segment should highlight how investing in sustainability is a win-win—it can open new revenue streams, enhance brand reputation, and enable them to access CSR grants and funding options. The campaign could offer insights into successful global examples of private sector involvement in sustainable projects, demonstrating potential returns on investment and the local economic impact.

2. **NGOs and International Development Organizations:** Local NGOs and international development organisations have traditionally played an important role in Palestinian community resilience efforts. These organisations have the technical expertise, local networks, and resources to support sustainable projects. They are key to securing donor funding, facilitating community-level projects, and implementing technical solutions for climate adaptation in rural areas. For example, organisations such as PAIC have been actively involved in similar initiatives, and these initiatives must be under the spotlight to be taken as inspirational stories.

An awareness campaign for this segment should focus on enhancing collaboration with private sector actors and government entities to scale existing community resilience programs. Tailored communications could present examples of successful cross-sectoral partnerships and demonstrate how NGOs can facilitate capacity building, offer technical expertise, and help with monitoring and evaluation. The campaign could include workshops and case study reports to foster collaboration between these organisations and local communities, while also pushing for higher integration with private sector solutions.

3. **Local Councils and Grassroots Organizations:** Local councils and grassroots organisations are the heart of any climate adaptation effort. They possess valuable on-the-ground knowledge and represent the beneficiaries of these projects, making their engagement crucial. Communities such as Bardala and Marda depend on agriculture, which faces acute climate-related challenges that impact water, waste management, and energy security. These communities also offer a wealth of social capital that can be mobilised to implement innovative solutions like community-based renewable energy projects or local waste management systems.

The awareness campaign should promote the empowerment of community leaders and cooperatives, ensuring that they understand the benefits of climate justice and sustainable practices. Workshops and training programs can help build capacity for managing and maintaining local projects. Additionally, the campaign can encourage the formation of cooperatives that represent farmers, which allow smallholder farmers and artisans to negotiate better terms with retailers, access resources collectively, and improve market access for local products.

4. **Media Outlets:** Media engagement is essential to drive visibility and broader public understanding of climate justice issues in Palestine. The media can serve as a catalyst to promote public discourse, highlight success stories, and raise awareness of how climate challenges are interlinked with political, economic, and environmental factors. International

media outlets can also serve to frame Palestine's climate justice story within a global narrative, attracting international interest and solidarity.

A media awareness strategy should include press tours, exposing journalists to projects on the ground, allowing them to see the impact firsthand. Additionally, the campaign should provide comprehensive press kits and hold media workshops to educate journalists on how to report effectively on climate justice and sustainable development. The campaign should aim to build long-term partnerships with prominent Palestinian and international news outlets to ensure consistent coverage.

4. **Smallholder Farmers:** Particularly women and youth, are often the most vulnerable to climate change impacts, and therefore, they should be a focal point of the campaign. These farmers are essential for maintaining food security and ensuring the success of climate adaptation projects. However, they are frequently disempowered by market structures, particularly through reliance on intermediaries that dictate prices and terms for selling produce.

The campaign should focus on promoting direct market access for farmers through innovative models like Community-Supported Agriculture or subscription services, where consumers commit to buying fresh produce directly from farms. Additionally, the campaign could promote investment in value-adding facilities like small-scale packing houses or cold storage facilities, which allow farmers to retain more value from their produce. Tailored workshops on business management, market access, and technology use (like apps for market tracking) could empower farmers to negotiate better terms with buyers and adopt more sustainable farming methods.

5. **Palestinian Public:** The Palestinian public plays a central role in shaping and influencing the success of climate justice and sustainability initiatives. As consumers, activists, and community members, they have the power to shape the market and push for change through behavioural shifts in consumption, waste management, and support for local businesses. This segment consists of diverse groups, ranging from urban dwellers to rural farmers, with a growing awareness of environmental and social issues. The younger generations, in particular, are increasingly concerned with ecological footprints and the impact of climate change on their communities.

An awareness campaign targeting the Palestinian public should focus on raising consciousness about the link between climate justice and everyday actions, such as supporting local produce, participating in waste separation, and adopting sustainable consumption habits. Messaging should emphasise how individual actions contribute to the broader effort to mitigate climate challenges, especially in vulnerable communities.

5. Campaign Phases

The project is structured into distinct phases, each focused on specific objectives and outcomes. Below is a detailed breakdown of the campaign phases, outlining the timeline and key activities for each stage of the initiative.





Figure 5: ECJP Campaign Phases and Activities

| Awareness Building (Months 1-3) | Engagement and Education (Months 4-6) | Investment Facilitation (Months 7-9) | Scaling and Replication (Months 10-12) |
|---|---|---|--|
| <ul style="list-style-type: none"> - Launch website and social media channels (ECJP.ps) - Release initial educational materials - Begin media outreach | <ul style="list-style-type: none"> - Host first round of events and webinars - Release comprehensive report - Launch stakeholder engagement programs | <ul style="list-style-type: none"> - Organize investment forum - Conduct field visits and matchmaking sessions - Release case studies of successful partnerships | <ul style="list-style-type: none"> - Host follow-up events to showcase progress - Launch challenge fund - Develop strategy for expanding successful initiatives |

6. Targeted Campaigns Framework





Our campaign strategy is tailored to engage distinct target audiences at each stage of implementation. By focusing on the specific needs, interests, and behaviours of these groups, we ensure maximum outreach and impact. Below is an overview of how we plan to engage, educate, and mobilise our key audiences through carefully designed activities, resources, and interactions that drive meaningful participation and support.

I. Private Sector Companies





| Content  | Target Audience  | Channel  | Partners  |
|---|--|--|--|
| <p>ECJP Website Includes Case studies, infographics, and showcasing benefits of adopting climate-resilient practices for business sustainability and access to financial support. Highlighting:</p> <p>a) Content derived from the 4 tasks in this study, including finance concept notes, private sector manual, Management sustainability plan, and action plan interventions</p> <p>b) A major highlight in the website must be the “ECJP Standard Label”, how to adopt it,</p> | <ul style="list-style-type: none"> - SMEs: Farmers, agribusinesses, service providers, and tech-startups; - Large corporates: CSR arms | <p>Social media platforms (Instagram ECJP page, Facebook page, Tiktok, LinkedIn)</p> | <p>Marketing and design companies that have specialty in digital marketing and website design:</p> <ul style="list-style-type: none"> - Zoom Publicis - Dot line digital marketing - Blue |

| | | | |
|--|--|---|--|
| and a list of stakeholders involved in onboarding businesses to adopt the label. | | | |
| Video Testimonials Produce video testimonials from local businesses who benefited from the ECJP matching grant, who adopted sustainability and saw ROI. Develop 1 -3 videos highlighting project success stories. | <ul style="list-style-type: none"> - SMEs: Farmers, agribusinesses, service providers, and tech-startups; - Large corporates: CSR arms | ECJP website ECJP social media platforms ECJP partners social media | <ul style="list-style-type: none"> - Videographers: Marwan As'ad - Marketing Companies: HD vision |
| Sustainable Palestine Investment Event Invite local financial institutions who showed interest in the concept notes, and international DFIs to showcase private sector businesses to project opportunities with strong return on investment potential in sustainable development. | Large corporates; Medium-sized companies that have proven records in sustainable projects | Events, networking forums, and webinars | <ul style="list-style-type: none"> - Umbrella organisations: PFI, Chamber of Commerce, Paltrade - Investment groups: IFC, EBRD, Bank of Palestine, TNB |
| Awareness Raising Brochure A brochure that has the same branding book as the website, including the content of the ECJP website; a) Develop toolkits for private sector companies to engage in sustainable practices. The toolkits are part of the private sector manual which will be developed in this study b) Benefits of adopting the ECJP Adaptation Investment Label (mentioned in the proposed interventions – Action Plan), and how an awareness campaign will be promoted to Palestinian consumers, providing businesses adopting this label with a competitive edge. | <ul style="list-style-type: none"> - Medium – Large corporates in the productive sectors (stone and marble, leather, food processing, carton manufacturing companies) - Registered Agribusinesses and food manufacturers | Events; Annual newsletter | <ul style="list-style-type: none"> - Palestine Federation of Industries - Palestine Standards Institute - Palpro - Rift Valley |

II. Smallholder Farmers





| Content | Target Audience | Channel | Partners |
|---|--|---|--|
|  <p>Business Management and Market Access Workshops Train farmers on negotiating better terms, accessing local markets, and using digital tools like apps for farm-to-market tracking (2 workshops for each location across 4 locations).</p> |  <p>Women Farmers Smallholder Farmers</p> |  <p>Local workshops; Field visits; Partnerships with agri-tech companies; Local Radio.</p> |  <ul style="list-style-type: none"> - Agri-tech Companies - Local Farmers' Associations - Agriculture cooperatives - Snipe - Khadra (alternative vegetable retailer) - Khobeze (alternative farming) - Basma Radio |
| <p>Direct Market Access and Consumer Demand Workshop Educate farmers on the concept of direct selling through Community Supported Agriculture (CSA) models to bypass intermediaries, alongside the growing demand for local, fresh, and environmentally friendly produce, with a focus on branded Palestinian goods. Provide practical guidance on building subscriber bases, communicating eco-friendly practices, and developing a unique brand identity for Palestinian ecological produce to attract consumers directly. Integrate demonstrations of digital tools for farm-to-market tracking and explore partnerships with local farmers' associations, cooperatives, and agri-tech companies to support sustainable growth and market visibility.</p> | <p>Smallholder Farmers</p> | <p>Workshops to farmers at Um Sulaiman Farm to understand the concept of CSA selling and subscription;</p> <p>Workshops in farms on ecological farming practices by MA'AN's team;</p> <p>Social media posts and testimonial videos.</p> | <ul style="list-style-type: none"> - Agricultural Cooperatives, - PAIC organisations - Um Sulaiman farm - Khadra (alternative vegetable retailer) - Khobeze (alternative farming) |

III. Palestinian Public

| Content | Target Audience | Channel | Partners |
|---|--|---|--|
|  <p>Integrate Subjects into Science Curriculums Waste separation curriculum introduced in schools (4; 2 public & 2 private), to make waste separation a standard, in collaboration with joint councils for better waste management practices and the ministry of education. The curriculum piece must explain why separation at source would be beneficial for all society's segments. The curriculum must have an execution exercise, where students apply the methods in their school</p> |  <p>School teachers (directly) students, parents (indirectly)</p> |  <p>Schools, community meetings, social media</p> |  <ul style="list-style-type: none"> - Ministry of Education - Joint Service Council - Public and private schools |
| <p>Promote Farm Visits Establish hiking routes through Palestinian landscapes, featuring stops at local farms. These routes will offer guided farm tours, food stalls, and handicraft sales, providing families, hikers, and school groups with an immersive experience in sustainable farming and local culture, while supporting community livelihoods.</p> | <p>Palestinian families, tourists</p> | <p>Local tourism companies, community events</p> | <ul style="list-style-type: none"> - Local tourism companies - NGOs - Saqiya (Ein Kenya fresh produce tours) |
| <p>ECJP labelling Campaign Introduce the concept of climate justice labels to the public, promoting the ECJP stamp as a marker of eco-friendly products that benefit local farmers and the environment. The messaging should communicate:</p> <p>a) Supporting Palestinian Producers: The raw materials used come from local farmers and small businesses, helping to strengthen the backbone of our economy.</p> <p>b) Boosting Palestinian Businesses: Every purchase directly benefits local enterprises,</p> | <p>Palestinian public, consumers</p> | <p>Social media, TV campaigns, partnerships with retailers; TV Ads; Offline marketing (Billboards and advertising screens in prime locations)</p> | <ul style="list-style-type: none"> - NGOs - Local retailers - PR agencies - Mada TV - Hadara TV - Marketing companies that have offline presence (Sky Advertising) |

| | | | |
|---|--|--|--|
| <p>contributing to job creation and tackling unemployment in Palestine.</p> <p>c) Preserving Vital Resources: These products adhere to the highest sustainability standards, helping to conserve Palestine's water and energy resources—critical assets for our communities' future.</p> | | | |
|---|--|--|--|

IV. Media Outlets

| <div>Content</div> <div>  </div> | <div>Target Audience</div> <div>  </div> | <div>Channel</div> <div>  </div> | <div>Partners</div> <div>  </div> |
|---|---|--|--|
| <p>Alternative Media Partnerships Support and partner with alternative media outlets like Basma Radio, Masa7a, and Uncivilized Media to create engaging podcasts and video content on Palestinian produce and the ECJP standards, by hosting business owners who have contributed to the climate justice topic</p> | <p>Alternative media outlets that speak to Palestinian youth</p> | <p>YouTube Podcasts, radio shows, video reports, social media short reels</p> | <ul style="list-style-type: none"> - Basma Radio - Uncivilized Media - Masa7a Media |
| <p>Media Engagement Organise press tours to project sites, allowing journalists to report on climate justice, with press kits explaining how the private sector is investing in sustainable development, and how local farmers are gaining benefits</p> | <p>National and international media outlets</p> | <p>Press releases, feature stories, media tours</p> | <ul style="list-style-type: none"> - PR agencies - NGOs |

7. Monitoring and Evaluation Measures

Effective monitoring and evaluation of the campaign requires a comprehensive framework that tracks both quantitative metrics and qualitative outcomes across different timeframes. The evaluation process will include:

| Regular Assessment Intervals |
|--|
| Monthly progress tracking of immediate metrics |
| Quarterly comprehensive reviews of campaign performance |
| Annual impact assessment and strategic evaluation |
| Continuous stakeholder feedback collection through structured channels |

| Key Performance Indicators (KPIs) | | |
|-----------------------------------|--------------------|--|
| I. | Reach & Engagement | <p>Social Media Performance</p> <ul style="list-style-type: none"> - Number of followers/subscribers across platforms - Engagement rates (likes, shares, comments, video views) <p>Website Analytics</p> <ul style="list-style-type: none"> - Monthly unique visitors - Time spent on educational content - Downloads of resources <p>Event Participation</p> <ul style="list-style-type: none"> - Number of attendees at workshops and forums - Participation rates in training sessions - Geographic distribution of participants |
| II. | Impact Metrics | <p>Private Sector Engagement</p> <ul style="list-style-type: none"> - Number of Businesses adopting ECJP standards - Investments/financing secured for climate justice projects - Number of new partnerships formed - CSR commitments secured <p>Farmer Participation</p> <ul style="list-style-type: none"> - Number of farmers enrolled in direct market access programs |

| | | |
|------|------------------------|--|
| | | <ul style="list-style-type: none"> - Adoption rates of sustainable practices - Income improvement for participating farmers - Number of successful CSA programs established <p>Public Awareness</p> <ul style="list-style-type: none"> - Pre and post campaign awareness surveys - Number of schools implementing curriculum - Student participation in environmental programs - Community waste separation rates <p>Media Coverage</p> <ul style="list-style-type: none"> - Number of press mentions - Quality of media coverage (sentiment analysis) - Diversity of media outlets covering the campaign - Reach of media coverage |
| III. | Outcome Metrics | <p>Behavioural Change</p> <ul style="list-style-type: none"> - Increased purchase of ECJP labelled products - Adoption of sustainable practices - Participation in community environmental initiatives - Waste separation compliance rates <p>Economic Impact</p> <ul style="list-style-type: none"> - Revenue growth for participating businesses - Job creation in sustainable sectors - Market share of eco-friendly products - Investment in sustainable projects |

8. Budget Allocation

The project budget is allocated across various components to ensure the efficient use of resources. Below is the breakdown of how funds are distributed to support the achievement of our objectives, which were gathered roughly from several service providers, none of the prices below are accurate.

| # | Item | Budget | Total |
|---|------|--------|-------|
|---|------|--------|-------|

| | | | |
|--|--|---|-----------------|
| Digital Presence and Content Creation | | | \$26,000 |
| I | Web Design & Development | \$2,500 | \$2,500 |
| II | Success Story Videos - design, filming, & editing (4) | \$4,000 each | \$16,000 |
| III | Alternative Media videos/podcasts - host fees, scriptwriting, design, filming, & editing (3) | \$2,000 each | \$6,000 |
| IV | Social Media Sponsorship | \$1,500 | \$1,500 |
| Educational Programs and Events | | | \$34,700 |
| I | CSA Workshops (3 of each location across 4 locations; 12) | Expert fees: \$300 x 12 Logistics and Meals: \$300 x 12 Space: \$100 x 12 | \$8,400 |
| II | Market Access Training Workshops (8) | Expert fees: \$350 x 8 Logistics and Meals: \$500 x 8 Space: \$250 x 8 | \$8,800 |
| III | School Curriculum Development Expert | \$10,000 | \$10,000 |
| IV | Teacher training workshops | Expert fees: \$300 x 4 schools x 2 workshops Space: \$250 x 10 Logistics & refreshments: \$200 x 10 | \$6,900 |
| Community Engagement | | | \$18,350 |
| I | Pilot Separation at Source in selected schools (4) | Materials & instalment, logistics: \$400 x 4 | \$1,600 |
| II | Farm Visit Program | Administrative fees: \$600 | \$8,600 |

| | | | |
|------------------------------------|--|--|---|
| | | Planning: \$1,000 x 3 Path Clearing, Trail Markings, Environment Protection methods: \$5,000 | |
| | | Community engagement and training: \$2,000 Pilot schools: \$400 x 4 | \$3,600 |
| III | Awareness Campaign Networking Event - Reachout, space & logistics | Expert/Facilitator: \$500 x 2 Hotel Workshop Venue: \$750 (coffee station) Number of Attendees/Stakeholders: TBD | \$1,750 + approx. \$2,000 [depending on no. of attendees] |
| Print and Traditional Media | | | \$33,200 |
| I | Brochures design & printing (5,000) | \$7,000 | \$7,000 |
| II | ECJP labels and packaging | Expert fees: \$10,000 ECJP labelling and packaging: \$6,000 TV ads: \$500 per month x 3 months Social media promotions: \$500 | \$18,000 |
| III | Billboards | \$2,000 - \$4,000 per billboard per month x 2 | \$8,000 |
| IV | Media Coverage fees | Transportation: \$200 | \$200 |
| Overall Total | | | \$122,250 |

TASK III | Communication Strategy

1. Introduction

This initiative seeks to establish a robust framework for the Environmental Climate Justice Program (ECJP) to connect directly with key financing entities—CSR departments, development agencies, donors, and banks—to support climate adaptation projects aimed at enhancing community resilience. The blended finance approach, central to this framework, combines grant funding with private sector investments, empowering vulnerable communities to build sustainable infrastructure for projects in the Water-Energy-Food (WEF) nexus and waste management.

Our recent interviews with organizations such as Munsha'aty, The National Bank (TNB), and GIZ have strategically aligned with these objectives, focusing on entities capable of delivering financial and technical support within a blended finance model. Each organization offers unique resources suited to different aspects of this initiative: Munsha'aty's capacity-building funds, TNB's CSR initiatives in renewable energy and loan programs for women entrepreneurs, and GIZ's sectoral expertise in green growth and tourism resilience. Together, these insights provide the ECJP with essential connections to structure effective financing solutions that attract private investment for climate-adaptive infrastructure.

At the core of this initiative is the goal of fostering job creation, especially within communities where youth demographics are prominent and reliant on limited income sources. By securing initial grant support to address key infrastructure gaps, this framework enables private sector actors to leverage these improvements, accessing loans or investor capital to drive long-term economic activity in these communities. This approach not only strengthens climate resilience but also accelerates workforce integration, enhancing both environmental and socio-economic sustainability in these high-need areas.

1.1. Primary Objectives

The primary objective is to mobilize private sector investment in climate-resilient infrastructure within communities, initially funded by grants to address critical gaps in water, energy, food (WEF) systems, and waste management. These initial investments enhance community infrastructure, creating fertile ground for sustainable business ventures led by private sector actors. Following these foundational improvements, the private sector can access tailored financing options—either through investor partnerships or bank loans—to establish businesses that build upon this reinforced infrastructure;

1. **Secure Capital for Climate Resilience Projects through Blended Finance:** By partnering with financing institutions, ECJP aims to establish a blended finance structure that combines grants with private capital. This structure helps de-risk investments, making climate adaptation projects in vulnerable communities more attractive to banks, CSR departments, and development agencies.

2. **Leverage Aligned Incentives for Broader Social and Environmental Impact:** ECJP seeks to collaborate with financiers who share similar incentives, such as supporting women, youth, and marginalized communities. By aligning project objectives with the social and environmental goals of CSR programs, development agencies, and banks, ECJP increases the appeal and likelihood of sustained financial support.
3. **Build Capacity and Foster Sustainable Practices Among MSMEs:** Financing institutions bring resources for business development and sustainability training. Engaging with partners like Munsha'aty, TNB, and GIZ enables ECJP to provide essential technical support and capacity-building for local businesses, preparing them to maintain sustainable operations and meet financier criteria for future investment.
4. **Enable Financing Access for the Private Sector to Invest in Adaptation Projects:** ECJP's engagement with financial institutions facilitates access to low-interest loans, credit guarantees, and other financial tools that empower private sector actors to invest in infrastructure and green projects. This access is crucial for establishing businesses that build upon grant-supported WEF and waste management improvements.
5. **Create a Sustainable Funding Ecosystem through Long-Term Partnerships:** Engaging financiers not only supports immediate project funding but also lays the groundwork for long-term financial partnerships. By working with institutions that prioritize green growth, social equity, and economic development, ECJP seeks to establish an enduring ecosystem that continues to finance climate adaptation efforts and community resilience projects well beyond the initial phases.

1.2. Target Audiences

Corporate Social Responsibility (CSR) Departments: Targeted CSR departments, such as those within the Bank of Palestine, The National Bank (TNB), and Paltel Group Foundation, are critical partners in ECJP's framework. These departments prioritize social and environmental initiatives that align closely with ECJP's mission to support vulnerable communities. By partnering with CSR entities committed to women's economic empowerment, youth employment, and community resilience, ECJP can access funding for climate adaptation projects that yield both social and economic impact. Their involvement not only supports ECJP's vision but also reinforces the CSR goals of each institution, contributing to sustainable development within underserved regions.

Financial Institutions: ECJP engages with financial entities like the Palestine Monetary Authority (PMA), Reef Finance, and microfinance institutions to secure diverse financing options for community-based projects. These institutions bring critical resources such as capacity-building grants, low-interest loans, and microlending to empower local businesses and entrepreneurs. By collaborating with these organizations, ECJP facilitates access to finance for small businesses in the climate adaptation space, ensuring they have the necessary resources to grow sustainably and drive community resilience. The focus on grant-backed, risk-mitigated financing options allows financial institutions to invest confidently in climate-focused projects within underserved Palestinian communities.

Development Agencies: Development agencies such as GIZ, SIDA, and USAID are essential partners in ECJP’s blended finance approach, offering a foundation of technical expertise, international best practices, and grant funding for climate adaptation. GIZ’s PSDP and Green Growth Palestine initiatives, for example, are directly aligned with ECJP’s objectives, emphasizing eco-friendly practices, green financing, and support for MSMEs. Partnering with development agencies provides ECJP with access to strategic resources that facilitate sustainable infrastructure and climate-resilient growth in WEF and waste management sectors, laying a solid groundwork for private sector investment.

2. Key Messages by Stakeholder Group

Through a combination of desk research and stakeholder interviews, we have conducted an in-depth analysis of the incentive structures across key financier segments—CSR departments, banks and financial institutions, and donors and development agencies. This analysis reveals distinct motivations within each group, which inform their decision-making processes regarding climate adaptation projects. CSR departments, for example, prioritize brand visibility, measurable community impact, and environmental compliance, aligning with ECJP’s goals for social transformation. Banks and financial institutions are particularly focused on investment security, risk management, and green financing opportunities, while development agencies prioritize alignment with Sustainable Development Goals (SDGs), community ownership, and gender inclusivity. This understanding of each group’s incentive structure enables ECJP to strategically position its climate resilience initiatives within a blended finance framework, enhancing appeal to diverse funding sources.

The following table summarizes our findings and highlights the key messages tailored to each stakeholder group.

Table 7: *Interest & Key Messages for Financing Stakeholders*

| Stakeholder Group | Main Interests | Key Messages |
|-------------------|----------------|--------------|
|-------------------|----------------|--------------|

| | | |
|--|---|---|
| <p>CSR Departments</p> | <p>Brand Visibility and Reputation Enhancement: Building corporate image through visible community support.</p> <p>Measurable Community Impact: Seeking quantifiable social and environmental returns, especially for women, youth, and vulnerable groups.</p> <p>Environmental Compliance Stories: Showcasing contributions to climate action and sustainability.</p> | <p>Community Transformation Narratives: Highlight how ECJP projects drive positive changes in vulnerable communities, with powerful impact stories.</p> <p>Clear Visibility and Recognition Plans: Provide branded project elements, media visibility, and community events.</p> <p>Environmental Impact Metrics: Offer benchmarks on reduced environmental footprint and improved resilience.</p> |
| <p>Banks & Financial Institutions</p> | <p>Investment Security and Returns: Focusing on secure, viable investments with long-term potential.</p> <p>Risk Management: Prioritizing projects with strong risk mitigation strategies.</p> <p>Green Financing Opportunities: Seeking ESG-compliant and green financing projects to align with sustainability targets.</p> | <p>Business Model Viability: Emphasize ECJP's support for robust, self-sustaining business models through partner expertise (e.g., GIZ, Munsha'aty).</p> <p>Risk Mitigation Approaches: Showcase the blended finance approach that reduces risk with grants and lowers barriers for private investors.</p> <p>Market Potential and Scalability: Highlight market growth and scalability of climate-resilient projects in Palestine for high ROI.</p> |

| | | |
|--|---|---|
| Donors & Development Agencies | <p>SDG Alignment: Aligning projects with Sustainable Development Goals (e.g., SDG 5, SDG 7, SDG 13).</p> <p>Community Participation: Focusing on initiatives that foster active community involvement and resilience.</p> <p>Gender Mainstreaming: Ensuring equal access, participation, and benefits for women in all project phases.</p> | <p>Project Alignment with Donor Priorities: Emphasize ECJP's alignment with SDGs, climate resilience, clean energy, and inclusive growth.</p> <p>Community Ownership Elements: Highlight community-centered design and engagement, ensuring long-term impact and local buy-in.</p> <p>Clear Impact Measurement Frameworks: Provide comprehensive frameworks for tracking environmental and social impact, with specific gender inclusion and SDG indicators.</p> |
|--|---|---|

3. Communication Action Plan

To effectively engage CSR departments, financial institutions, investors, development agencies, and donors, the Environmental Climate Justice Program (ECJP) must develop a comprehensive strategy that addresses the specific incentives and needs of each stakeholder group.

This strategy builds on a blended finance approach and emphasizes creating an attractive and feasible project pipeline while incorporating robust data collection and measurement systems. Here's how this can be streamlined:

I. Establishing a Feasible and Attractive Pipeline

In order to create a pipeline of viable interventions that demonstrate clear potential for return, manageable risk, and positive social and economic impacts to attract diverse financing sources, a Detailed feasibility study must be done in depth of each of the five proposed interventions from the “Action Plan and Proposed Interventions” section. This includes;

- **Expense and Cost Analysis:** Collect detailed data on the expenses and costs associated with each intervention to ensure financial feasibility.
- **Return Prediction:** Forecast the potential returns these interventions could generate by modeling expected revenues and benefits.
- **Risk Assessment:** Analyze the risks associated with each intervention, considering market dynamics, operational challenges, and external factors.
- **Job Creation Impact:** Project how each intervention will contribute to job creation, focusing on engaging youth and women to meet development agencies' priorities.
- **Brand Reflection for CSR:** Evaluate how CSR participation in these interventions will enhance the brand visibility and reputation of involved corporations.

Outcome: The results of these feasibility studies will create a clear, data-backed rationale for investing in these interventions and will inform potential stakeholders of the benefits and risks involved.

II. Applying the Blended Finance Model

After the initial feasibility of each intervention, Secure initial grants funding round through development agencies and donors (see 5 concept notes) to build the necessary infrastructure for the proposed interventions and create a sustainable pathway for future private sector and investor engagement.

- **Engage Development Agencies and Donors:** Use the data collected from the feasibility studies to develop compelling proposals that align with their incentives of impact measurement, job creation, and community development. The goal is to secure the first round of financing in the form of grants that will fund the foundational infrastructure of these interventions.
- **Develop Infrastructure:** Once the initial grant funding is secured, implement the interventions to establish the infrastructural interventions needed for further private sector involvement, such as water network rehabilitation, solar energy plant, warehouses for the post harvest facilitation...etc.

Outcome: By building the foundational infrastructure with initial grant funding, the ECJP will create an environment investment ready opportunities for private sector engagement, making it more attractive for CSR departments to contribute to the piloting phase of business ideas.

III. Connecting Data Sources Using Technology to Continuously Monitor Stakeholder Involvement

In order to maintain transparency, accountability, and effectiveness in managing the interventions, ECJP will connect various data sources using technology. This data integration will provide ongoing insights into the participation and impact of stakeholders across grants, investments, and community benefits. By establishing a centralized data system, ECJP can collect, analyze, and share critical metrics that align with stakeholders' interests, such as brand visibility, job creation, ROI, and risk mitigation;

- **Unified Data Collection and Management Platform:** Develop or adopt a cloud-based data management platform that integrates data from multiple sources. This platform will act as a centralized repository for all data collected from grants, CSR activities, private sector investments, and community development projects.
- **Automated Data Feeds:**
 - Grants and CSR Involvement: Track grant and CSR funding flows, monitor fund utilization, and assess project progress by connecting directly with financial management systems of CSR departments and donor agencies.
 - Investment Data: Partner with banks and investors to collect regular investment data on capital deployed, returns, and associated risks.

- Community Impact and Job Creation: Use automated data collection methods, including field surveys and mobile data collection tools, to gather information on employment rates, demographic changes, and quality of life improvements in communities.
- **Data Security and Compliance:** Ensure data privacy and compliance by implementing blockchain technology and encrypted data transfer protocols, creating a secure and tamper-proof environment for sensitive financial and social data.

Outcome: This continuous data integration provides ECJP with a real-time understanding of how each stakeholder's involvement impacts community and economic development, creating a transparent, data-driven framework that builds trust and long-term engagement with stakeholders.

IV. Piloting the Shared Pipeline with Blended Finance and Technological Data Collection

To demonstrate the effectiveness of the blended finance approach and data collection framework, ECJP will launch pilot projects that integrate funding from donors, development agencies, CSR departments, and private sector investors. These pilots will use data collected through various technological tools to evaluate social, economic, and financial impact in a structured, real-world environment'

- **Blended Finance Model Implementation:** ECJP will bring together initial grants from development agencies and donor organizations to fund foundational infrastructure, such as water network improvements, renewable energy installations, and storage facilities. This foundational layer will enable subsequent private sector investments from CSR departments, banks, and investors.
- **Technological Tools for Data Collection:**
 - Surveys for Social and Economic Impact: Use mobile data collection tools like KoBoToolbox and SurveyCTO to gather community feedback, measure employment rates, and assess changes in demographics and quality of life after project implementation.
 - ERP and Point of Sale (POS) Data from Businesses: For businesses receiving financing through ECJP, integrate ERP systems or POS data to track revenue growth, operational cost savings, and job creation. This data will allow ECJP to measure ROI and assess the long-term viability of businesses established or expanded through the pipeline.
 - Municipality Data on Employment and Demographics: Collaborate with local municipalities to collect statistics on employment rates, demographic shifts, and community engagement levels. This information will show how infrastructure improvements and business development impact local economies.

- **Real-Time Data Dashboard:** Establish a live, interactive dashboard on the ECJP website to display metrics collected from pilot projects, giving stakeholders access to updated insights on social impact, financial performance, and community development.

Outcome: Piloting the shared pipeline with a blended finance approach and comprehensive data collection will showcase the effectiveness of ECJP's model. This approach demonstrates how foundational grant funding can catalyze private sector investments, while real-time data collection provides measurable insights on brand recognition, job creation, and ROI/risk for all stakeholders. This pilot phase will serve as a proof of concept to encourage further investment and engagement.

V. Long-Term Measurement and Reporting for Stakeholders

The objective from the long term measurement is to maintain stakeholder engagement by measuring and reporting on key metrics relevant to each group and presenting them in a consistent, transparent manner;

- **Impact Measurement for Development Agencies and Donors:** Track and report on social and economic outcomes such as job creation, community resilience, and alignment with SDGs.
- **ROI and Risk for Financial Institutions:** Continuously update data on the ROI and risk profiles of funded businesses, presenting findings in visual reports and on the dashboard.
- **Brand Recognition Metrics for CSR:** Measure and showcase the brand visibility outcomes for CSR departments through analytics, testimonials, and media coverage.
- **Blended Finance and Measuring Cycle:** Adopt a cyclical approach to measure and report the outcomes of each phase, sharing insights with similar stakeholders to replicate and scale the model.

Outcome: The ECJP will position itself as a transparent, data-driven initiative, maintaining trust and engagement from CSR departments, financial institutions, development agencies, and donors.

4. Environmental Financing Concept Notes

Building on the community assessments, stakeholder analysis, and proposed interventions outlined in previous chapters, this section presents five strategic financing concepts designed to create sustainable funding channels for environmental initiatives in Palestine. These concepts directly address the challenges identified in our target communities of Al Ouja, Bardala, Marda, and Bani Na'eem, particularly focusing on the Water-Energy-Food nexus and waste management needs. The financing frameworks proposed here implement the blended finance approach discussed earlier, combining various funding sources to maximize impact and sustainability.

Each concept note is structured to support the specific interventions proposed - from post-harvest facilities in Bardala to water management in Marda, renewable energy in Bani Na'eem, and waste management in Al Ouja. They are designed to overcome the identified barriers to private sector engagement while addressing the distinct interests of CSR departments, financial institutions, and development agencies that emerged from our stakeholder analysis. Through these targeted

financing mechanisms, we create pathways for transforming community resilience plans into actionable, funded projects that can attract sustained private sector investment.

The concept notes integrate the communication strategies outlined in our stakeholder engagement plan, ensuring that each financing mechanism effectively communicates value to its target audience while maintaining alignment with the broader objectives of the Environmental and Climate Justice Programme (ECJP). Crucially, each concept note includes detailed implementation frameworks and specific measurement criteria aligned with stakeholder interests. These will be tracked and reported through the ECJP digital platform, creating a comprehensive data collection and analysis system that facilitates informed decision-making and clearly demonstrates the value created through these partnerships to all stakeholders involved.

This systematic approach to financing reflects our understanding that successful environmental projects require not just initial funding, but sustainable, long-term financial partnerships that can support communities through the entire project lifecycle. Each concept note thus represents a crucial building block in creating a resilient environmental financing ecosystem that can support Palestinian communities in their journey toward climate resilience and environmental justice

I. Crowdfunding for Green Initiatives

Rationale

Traditional funding mechanisms often struggle to reach smaller-scale environmental projects that have significant community impact potential. Crowdfunding presents a unique opportunity to democratize environmental project funding while simultaneously raising awareness about climate justice initiatives. BuildPalestine's established platform and track record in social impact crowdfunding makes them an ideal partner to help PAIC organizations access a broader donor base, particularly among the Palestinian diaspora and international supporters interested in sustainable development.

Implementation Approach

PAIC organizations will work closely with BuildPalestine to identify and prepare environmental initiatives suitable for crowdfunding campaigns. The selection process will prioritize projects that demonstrate clear community benefits and tangible environmental impacts. BuildPalestine will provide comprehensive platform access, enabling projects to reach a global audience of potential donors. Their expertise in campaign strategy development will help shape compelling narratives that resonate with donors and highlight the unique value proposition of each environmental initiative.

The partnership will extend beyond mere fundraising to include access to BuildPalestine's social enterprise programming, which offers valuable capacity-building opportunities for project implementers. Their marketing and donor outreach support will ensure campaigns maintain momentum and achieve their funding goals through strategic communication and regular updates to supporters.

Expected Outcomes

Environmental projects will gain significantly increased visibility through BuildPalestine's established networks and marketing channels. This exposure will help create a sustainable pipeline of alternative funding sources for future initiatives. Project owners will develop crucial skills in campaign management, donor communication, and impact reporting through BuildPalestine's capacity building programs. Additionally, the crowdfunding approach will foster deeper community engagement in environmental initiatives by allowing direct participation in project funding.

Measurable Data Points for ECJP Platform

| | |
|-------------------|---|
| For CSR Interests | <div><div>- Campaign reach and engagement metrics</div><div>- Social media impact measurements</div><div>- Community participation rates</div><div>- Brand visibility analytics</div></div> |
|-------------------|---|

| | |
|---|--|
| | <ul style="list-style-type: none">- Success stories and testimonials |
| For Banks/Financial Institutions | <ul style="list-style-type: none">- Fund utilization efficiency- Project completion rates- Financial sustainability indicators- Risk management metrics- Return on investment calculations |
| For Donors/Development Agencies | <ul style="list-style-type: none">- Number of beneficiaries reached- Environmental impact metrics- SDG alignment indicators- Gender participation rates- Youth engagement statistics |

Crowdfunding MoU draft

MEMORANDUM OF UNDERSTANDING

Between
[PAIC ORGANIZATION NAME]
And
BuildPalestine

Introduction

This Memorandum of Understanding (MoU) is entered into by and between [PAIC ORGANIZATION NAME], a member organization of the Palestinian Agricultural Institutions Coalition (PAIC), and BuildPalestine, to establish a framework for cooperation in supporting environmental initiatives through crowdfunding.

Background

The Environmental and Climate Justice Programme (ECJP) is a comprehensive initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with PAIC, the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice, with support from the Swedish International Development Agency (SIDA).

Purpose

The purpose of this MoU is to establish a partnership for crowdfunding support for environmental initiatives identified through the ECJP program.

Roles and Responsibilities

[PAIC ORGANIZATION NAME] will:

- Identify and screen suitable environmental projects
- Prepare project documentation and campaign materials
- Provide technical expertise and project oversight
- Monitor project implementation and impact

BuildPalestine will:

- Provide crowdfunding platform access
- Support campaign strategy development
- Offer social enterprise programming access
- Manage donor communications
- Provide campaign analytics and reporting

Duration

This MoU shall be effective from [DATE] for a period of one year.

Confidentiality

Both parties agree to maintain confidentiality of all information shared during the course of this partnership.

Amendments

This MoU may be modified or amended by mutual written agreement of both parties.

Termination

Either party may terminate this MoU with 30 days written notice to the other party.

Legal Status

This MoU is a statement of understanding and is not intended to create binding or legal obligations on either party.

AGREED TO:

[PAIC ORGANIZATION NAME]

[PARTNER ORGANIZATION]

Name:

Name:

Title:

Title:

Date:

Date:

II. Micro-Insurance for Environmental Projects Partner

Rationale

Environmental projects in Palestine face unique risks due to political instability, climate vulnerabilities, and economic uncertainties. The lack of appropriate insurance products often deters potential investors and limits project sustainability. By developing specialized micro-insurance products, this initiative aims to create a safety net for environmental investments while making insurance accessible and affordable for smaller-scale projects. This approach addresses a critical gap in the market while promoting long-term project viability and investor confidence.

Implementation Approach

The program will begin with a comprehensive assessment of environmental project risks across different sectors. Insurance companies will work with PAIC organizations to design customized products that specifically address the needs of renewable energy installations, water management projects, agricultural initiatives, and waste management solutions. These products will feature simplified underwriting processes and flexible premium structures to ensure accessibility.

The insurance products will be developed through a phased approach, starting with pilot programs in low-risk sectors before expanding to more complex coverage areas. Claims processes will be

streamlined and digitized where possible, with clear documentation requirements and rapid response protocols. Regular reviews and adjustments will ensure products remain relevant and effective.

The partnership will also include capacity building for project implementers on risk management and insurance utilization, helping them maximize the benefits of their coverage while minimizing potential claims through better risk management practices.

Expected Outcomes

The introduction of specialized micro-insurance products will significantly reduce risk exposure for environmental project implementers. This enhanced security will increase investor confidence, potentially attracting more private sector funding to environmental initiatives. Project operations will become more sustainable through better risk management practices, and the overall viability of environmental projects will improve through reduced financial vulnerability to unexpected events.

Measurable Data Points for ECJP Platform

| | |
|---|---|
| For CSR Interests | <ul style="list-style-type: none">- Number of projects protected- Community benefit metrics- Risk mitigation success stories- Environmental protection statistics- Social impact indicators |
| For Banks/Financial Institutions | <ul style="list-style-type: none">- Claims frequency and severity- Premium collection rates- Risk assessment scores- Portfolio performance metrics- Cost-benefit analysis data |
| For Donors/Development Agencies | <ul style="list-style-type: none">- Project sustainability rates- Vulnerability reduction metrics- Coverage accessibility statistics- Gender-disaggregated data |

| | |
|--|-----------------------------------|
| | - Community resilience indicators |
|--|-----------------------------------|

Micro-Insurance MoU draft

MEMORANDUM OF UNDERSTANDING

Between

[PAIC ORGANIZATION NAME]

And

[INSURANCE COMPANY NAME]

Introduction

This Memorandum of Understanding (MoU) is entered into by and between [PAIC ORGANIZATION NAME], a member organization of PAIC, and [INSURANCE COMPANY NAME], to develop micro-insurance products for environmental initiatives.

Background

The Environmental and Climate Justice Programme (ECJP) is a comprehensive initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with PAIC, the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice, with support from the Swedish International Development Agency (SIDA).

Purpose

The purpose of this MoU is to establish a framework for developing and implementing micro-insurance products specifically designed for environmental projects.

Roles and Responsibilities

[PAIC ORGANIZATION NAME] will:

- Provide technical expertise on environmental projects
- Help identify insurance needs and risks
- Support product development and testing

- Facilitate community engagement

[INSURANCE COMPANY NAME] will:

- Design appropriate insurance products
- Develop pricing models and premium structures
- Handle policy administration
- Process claims
- Provide regular reporting

Duration

This MoU shall be effective from [DATE] for a period of one year.

Confidentiality

Both parties agree to maintain confidentiality of all information shared during the course of this partnership.

Amendments

This MoU may be modified or amended by mutual written agreement of both parties.

Termination

Either party may terminate this MoU with 30 days written notice to the other party.

Legal Status

This MoU is a statement of understanding and is not intended to create binding or legal obligations on either party.

AGREED TO:

[PAIC ORGANIZATION NAME]

[PARTNER ORGANIZATION]

Name:

Name:

| | |
|--------|--------|
| Title: | Title: |
| Date: | Date: |

III. Green Growth Palestine Project Pipeline Partner: GIZ

Rationale

GIZ's Green Growth Palestine initiative represents a significant opportunity to scale environmental projects through established institutional funding channels. By creating a structured pipeline between PAIC initiatives and GIZ's funding mechanisms, this partnership addresses the critical need for sustainable, long-term funding while ensuring alignment with national development goals. GIZ's expertise in technical assistance and project development adds substantial value beyond mere financial support.

Implementation Approach

The partnership will establish a systematic approach to screening and preparing projects according to GIZ's established criteria. A comprehensive project development process will focus on key sectors including ICT, food processing, fair trade, and tourism, with particular emphasis on environmental sustainability and economic viability.

Technical assistance will be provided throughout the project lifecycle, from initial concept development through implementation and monitoring. This support will include detailed feasibility studies, environmental impact assessments, and market analysis. The due diligence process will be thorough yet efficient, incorporating both environmental and financial sustainability metrics.

Regular coordination meetings between PAIC organizations and GIZ will ensure alignment of objectives and methodologies, while capacity building workshops will help project implementers meet GIZ's rigorous standards for project development and reporting.

Expected Outcomes

Projects will gain access to substantial funding opportunities, with potential grants of up to 78,000 ILS per initiative. The quality of environmental projects will improve significantly through GIZ's technical support and rigorous review processes. Environmental impact measurement will become more sophisticated and standardized, while alignment with national green growth objectives will strengthen the overall position of environmental initiatives within Palestine's development agenda.

Measurable Data Points for ECJP Platform

| | |
|-------------------|--|
| For CSR Interests | <ul style="list-style-type: none"> - Project success stories - Local employment creation - Environmental innovation metrics |
|-------------------|--|

| | |
|---|---|
| | <ul style="list-style-type: none">- Community engagement levels- Sustainability achievements |
| For Banks/Financial Institutions | <ul style="list-style-type: none">- Project financial performance- Investment leverage ratios- Risk management effectiveness- Market penetration data- Economic impact indicators |
| For Donors/Development Agencies | <ul style="list-style-type: none">- SDG contribution metrics- Climate resilience indicators- Gender mainstreaming data- Youth participation rates- Capacity building outcomes |

Green Growth Palestine MoU draft

MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

Between

[PAIC ORGANIZATION NAME]

And

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Introduction

This Memorandum of Understanding (MoU) is entered into by and between [PAIC ORGANIZATION NAME], a member organization of PAIC, and GIZ, to facilitate access to Green Growth Palestine funding for environmental initiatives.

Background

The Environmental and Climate Justice Programme (ECJP) is a comprehensive initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with PAIC, the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice, with support from the Swedish International Development Agency (SIDA).

Purpose

The purpose of this MoU is to establish a framework for connecting environmental initiatives with GIZ's Green Growth Palestine funding opportunities.

Roles and Responsibilities

[PAIC ORGANIZATION NAME] will:

- Identify and screen suitable projects
- Support proposal development
- Provide technical expertise
- Monitor project implementation
- Report on project outcomes

GIZ will:

- Provide funding criteria and guidelines
- Review project proposals
- Offer technical assistance
- Process funding applications
- Monitor fund utilization

Duration

This MoU shall be effective from [DATE] for a period of one year.

Confidentiality

Both parties agree to maintain confidentiality of all information shared during the course of this partnership.

Amendments

This MoU may be modified or amended by mutual written agreement of both parties.

Termination

Either party may terminate this MoU with 30 days written notice to the other party.

Legal Status

This MoU is a statement of understanding and is not intended to create binding or legal obligations on either party.

AGREED TO:

[PAIC ORGANIZATION NAME]

[PARTNER ORGANIZATION]

Name:

Name:

Title:

Title:

Date:

Date:

III. Monshati Platform Integration

Rationale

Small and medium environmental enterprises often lack access to comprehensive business development support and sustainable financing options. Integration with Monshati's platform addresses this gap by providing a holistic support ecosystem while connecting projects to Istidama's dedicated funding streams. This partnership leverages Monshati's established infrastructure and expertise in enterprise development, creating a more sustainable pathway for environmental initiatives to achieve market viability and scale.

Implementation Approach

The integration process will begin with a thorough assessment of each environmental project's business model and development needs. Qualified projects will be systematically registered on the Monshati platform, gaining access to a comprehensive suite of support services. These services will

be delivered through a structured program that includes individualized technical assistance focused on business plan development, financial management, and market analysis.

Business development support will be tailored to environmental sector needs, incorporating specialized guidance on green business practices and sustainability metrics. Legal consultation services will help projects navigate regulatory requirements and environmental compliance standards. Market insights will be regularly provided through detailed sector analyses and competitor benchmarking.

The partnership will facilitate direct connections to Istidama funding programs, with support for application preparation and ongoing monitoring of fund utilization. Regular review sessions will track progress and adjust support strategies as needed to ensure optimal outcomes.

Expected Outcomes

Environmental projects will achieve enhanced sustainability through improved business planning and management practices. Access to specialized technical support will strengthen operational capabilities and market competitiveness. Business planning processes will become more sophisticated and market-oriented, while direct funding opportunities through Istidama will provide crucial financial support for growth and expansion.

Measurable Data Points for ECJP Platform

| | |
|---|--|
| For CSR Interests | <ul style="list-style-type: none">- Business growth metrics- Job creation statistics- Community economic impact- Environmental compliance rates- Social value creation indicators |
| For Banks/Financial Institutions | <ul style="list-style-type: none">- Financial performance metrics- Credit worthiness indicators- Business plan achievement rates- Market penetration data- Investment readiness scores |

| | |
|--|--|
| For Donors/Development Agencies | <ul style="list-style-type: none"> - Enterprise sustainability metrics - Development impact indicators - Innovation adoption rates - Capacity building outcomes - Gender and youth inclusion data |
|--|--|

| |
|--|
| <p>Monshati Platform MoU draft</p> <p>MEMORANDUM OF UNDERSTANDING</p> <p>MEMORANDUM OF UNDERSTANDING</p> <p>Between</p> <p>[PAIC ORGANIZATION NAME]</p> <p>And</p> <p>Monshati Platform</p> <p>Introduction</p> <p>This Memorandum of Understanding (MoU) is entered into by and between [PAIC ORGANIZATION NAME], a member organization of PAIC, and Monshati Platform, to facilitate access to business development services and Istadama funding.</p> <p>Background</p> <p>The Environmental and Climate Justice Programme (ECJP) is a comprehensive initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with PAIC, the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice, with support from the Swedish International Development Agency (SIDA).</p> <p>Purpose</p> <p>The purpose of this MoU is to establish a framework for connecting environmental initiatives with Monshati's support services and funding opportunities.</p> |
|--|

Roles and Responsibilities

[PAIC ORGANIZATION NAME] will:

- Screen and prepare environmental projects
- Provide technical environmental expertise
- Support project implementation
- Monitor environmental impact

Monshati Platform will:

- Provide platform access
- Deliver business development services
- Facilitate access to Istidama funding
- Offer technical assistance
- Provide monitoring and reporting tools

Duration

This MoU shall be effective from [DATE] for a period of one year.

Confidentiality

Both parties agree to maintain confidentiality of all information shared during the course of this partnership.

Amendments

This MoU may be modified or amended by mutual written agreement of both parties.

Termination

Either party may terminate this MoU with 30 days written notice to the other party.

Legal Status

This MoU is a statement of understanding and is not intended to create binding or legal obligations on either party.

AGREED TO:

[PAIC ORGANIZATION NAME]

[PARTNER ORGANIZATION]

Name:

Name:

Title:

Title:

Date:

Date:

IV. Corporate CSR Engagement

Rationale

Corporate CSR programs represent a significant untapped resource for environmental initiatives in Palestine. By using TNB's successful sustainability framework as a model, this partnership creates a structured approach to connecting environmental projects with corporate social responsibility objectives. This alignment not only provides access to sustainable funding but also brings corporate expertise and networks to support environmental initiatives while helping companies achieve their ESG goals.

Implementation Approach

The partnership will begin with a detailed mapping of corporate ESG objectives against environmental project outcomes. Projects will be presented through a comprehensive CSR lens that emphasizes multiple value creation aspects, including environmental impact, community benefit, brand visibility, and SDG alignment. This approach will be supported by robust impact measurement frameworks that demonstrate clear value to corporate partners.

A structured reporting mechanism will be developed to provide regular updates on project progress and impact metrics. This will include quarterly impact reports, stakeholder engagement summaries, and media coverage analysis. The partnership will also facilitate direct engagement opportunities between corporate partners and project beneficiaries through site visits, community events, and shared learning sessions.

The program will include regular strategic review meetings to ensure alignment of objectives and identify opportunities for deeper engagement. Knowledge sharing sessions will be organized to help environmental projects benefit from corporate expertise in areas such as operational efficiency, marketing, and financial management.

Expected Outcomes

The partnership will create sustainable funding relationships that extend beyond simple financial support to include knowledge transfer and capacity building. Environmental projects will gain

enhanced credibility through association with respected corporate brands. Increased visibility through corporate networks will help attract additional support and investment. Long-term corporate engagement will provide stability and sustainability for environmental initiatives.

Measurable Data Points for ECJP Platform

| | |
|---|---|
| For CSR Interests | <ul style="list-style-type: none">- Brand impact metrics- Media coverage analysis- Stakeholder engagement rates- Employee volunteer hours- Community satisfaction scores |
| For Banks/Financial Institutions | <ul style="list-style-type: none">- Investment performance metrics- Risk management effectiveness- Partnership sustainability rates- Value creation indicators- Return on CSR investment |
| For Donors/Development Agencies | <ul style="list-style-type: none">- SDG contribution metrics- Partnership effectiveness data- Cross-sector collaboration indicators- Scaling and replication potential- Policy influence measurements |

TNB CSR Engagement MoU draft

MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

Between

[PAIC ORGANIZATION NAME]

And

The National Bank (TNB)

Introduction

This Memorandum of Understanding (MoU) is entered into by and between [PAIC ORGANIZATION NAME], a member organization of PAIC, and The National Bank(TNB), to facilitate corporate CSR support for environmental initiatives.

Background

The Environmental and Climate Justice Programme (ECJP) is a comprehensive initiative designed to advance environmental and climate justice in Palestine. Implemented by WeEffect in partnership with PAIC, the program aims to empower civil society organizations and communities to address structural barriers to environmental and climate justice, with support from the Swedish International Development Agency (SIDA).

Purpose

The purpose of this MoU is to establish a framework for connecting environmental initiatives with corporate CSR programs.

Roles and Responsibilities

[PAIC ORGANIZATION NAME] will:

- Identify suitable environmental projects
- Provide technical expertise
- Monitor project implementation
- Report on environmental impact

TNB will:

- Review project proposals
- Provide CSR funding
- Support project visibility

- Share expertise in sustainability reporting
- Monitor social impact

Duration

This MoU shall be effective from [DATE] for a period of one year.

Confidentiality

Both parties agree to maintain confidentiality of all information shared during the course of this partnership.

Amendments

This MoU may be modified or amended by mutual written agreement of both parties.

Termination

Either party may terminate this MoU with 30 days written notice to the other party.

Legal Status

This MoU is a statement of understanding and is not intended to create binding or legal obligations on either party.

AGREED TO:

[PAIC ORGANIZATION NAME]

[PARTNER ORGANIZATION]

Name:

Name:

Title:

Title:

Date:

Date:

TASK IV | Private Sector Manual

1. Introduction

This manual is part of the Environmental and Climate Justice Program (ECJP), a 36-month initiative (2021-2023) funded by the Swedish International Development Cooperation Agency (SIDA) and implemented by We Effect in partnership with the Palestinian Agricultural Institutions Coalition (PAIC). The ECJP coalition includes six prominent Palestinian NGOs—the Palestinian Agricultural Relief Committee (PARC), Palestinian Hydrology Group (PHG), Land Research Centre (LRC), MA'AN Development Centre, and the Applied Research Institute – Jerusalem (ARIJ). Together, these organisations are dedicated to addressing environmental, agricultural, and natural resource challenges in Palestine, focusing on the intersection of climate justice and equitable resource access for marginalized communities.

The ECJP aims to foster environmental and climate justice across Palestine by 2024, empowering civil society organisations and stakeholders to tackle systemic obstacles to sustainable development. Given that climate change is as much a social and political issue as an environmental one, ECJP adopts a gender-sensitive, human rights-based approach. This framework highlights the connection between the rights of marginalised groups—particularly women, youth, and smallholder farmers—and the responsibilities of government bodies in environmental governance, promoting fair access to natural resources and information.

This manual was developed to guide businesses in supporting climate justice by adopting sustainable practices that align with the interests of the private sector. In collaboration with PAIC and its members, this project identifies and showcases successful green initiatives within the Palestinian private sector, demonstrating how climate-conscious practices can drive shared value.

This report includes an overview of current green practices and projects, highlighting key areas where businesses can benefit financially, socially, and environmentally from engaging in climate action. As part of this initiative, a guideline manual for large corporations and small and medium enterprises (SMEs) was created, providing actionable steps to help businesses actively contribute to climate resilience. Through this manual, the ECJP and its partners aim to encourage the private sector to recognize the short, medium and long-term benefits of sustainable practices and engage in meaningful climate action that supports the resilience and well-being of all Palestinian communities.

Climate justice in Palestine addresses the inequities that arise from climate change impacts, particularly as they intersect with social, economic, and political challenges. While climate change affects all, its burdens disproportionately impact marginalised Palestinian communities facing restricted access to resources and limited environmental governance. Climate justice in this context advocates for fair access to resources, resilience-building initiatives, and tailored adaptation strategies to support those most vulnerable, ensuring that the responsibility and resources for managing climate impacts are distributed equitably.

2. Economic and Social Benefits of Adopting Green Practices

The transition to sustainable business practices in developing countries represents far more than an environmental imperative – it has become a powerful driver of economic growth, innovation, and competitive advantage. As climate change concerns intensify and global markets evolve, businesses are discovering that environmental sustainability offers a pathway to enhanced profitability, market expansion, and long-term resilience.

2.1 Benefits Across Selected Palestinian Sectors

Table 8: Overview of Green Policy Adoption Benefits

| | |
|--|--|
| Corporate CSR | <p>Brand Visibility and Operations Development</p> <p>a) Strengthening corporate image through active and visible community support can significantly boost word-of-mouth marketing and expand market reach.</p> <p>b) Investing in renewable energy and resource management systems creates long-term savings, freeing up resources for other corporate activities.</p> <p>c) Attracting and retaining eco-conscious talent boosts team productivity and aligns with sustainability goals.</p> <p>Local Economy Development</p> <p>a) Sponsoring sustainable energy projects, especially solar panels, have a high employability rate compared to regular fossil fuel industries.</p> <p>b) Supporting vulnerable communities helps create a resilient economy that is not dependent on foreign trade to sustain Palestine’s food demand.</p> |
| Financial Institutions – Banks, Microfinance Investors | <p>Brand Visibility</p> <p>Strengthening corporate image through active and visible community support can significantly boost word-of-mouth marketing and expand market reach.</p> <p>Market Development for Future Investments</p> <p>Investing in sustainable practices helps businesses build resilience against economic and political instability, reducing long-term credit risks. Blended finance structures involving development agencies and donors can further mitigate these risks by sharing the financial burden, making green projects less risky for banks and microfinance institutions.</p> <p>Incentivising Sector Development</p> |

| | |
|-------------------------------------|---|
| | <p>Offering low-interest rates during the initial phases of green projects incentivises sector development, helping businesses establish sustainable infrastructure. This early support strengthens the market, creating a foundation for future growth. As businesses expand and scale, the demand for larger investments increases, further driving the development of the green sector and supporting long-term economic sustainability.</p> |
| Tech Startups | <p><i>Opportunities of Growth</i></p> <p>Startups in environmental sectors gain better access to grants, equity, publicity, and capacity-building, crucial for sustainable growth.</p> <p><i>Opportunities in Innovation</i></p> <ul style="list-style-type: none"> - Opportunities exist in water and energy efficiency, including agritech solutions like data analytics for crop optimization and sustainable practices. - Developing scalable technologies like hydroponics could transform agriculture and address resource limitations. - Startups could partner with service providers to innovate in renewable energy, such as automated solar panel cleaning systems to boost efficiency. |
| Service Providers | <p><i>Access to Finance</i></p> <p>There's a larger opportunity to access capital (grants or incentivised funding schemes) if the service providers help businesses adopt green practices, allowing them to enhance the scale operations.</p> <p><i>Partnership Opportunities and Networking</i></p> <p>Participating in climate adaptation projects allows service providers to build strategic partnerships with governments, private sector actors, NGOs, and international organisations, expanding their network and unlocking new multi-sector opportunities.</p> |
| Farmers & Agribusinesses | <p><i>Increase Productivity</i></p> <p>a) Investing in shared infrastructure such as solar panels, water wells, storage warehouses, and advanced equipment can significantly reduce food losses and lower water and energy costs, especially in areas not connected to the main grid. These investments can also expand market access for farmers, enhancing their productivity and resilience.</p> <p>b) The adoption of technological solutions brings measurable developments; monitoring and reduction of resource usage, as well as farmers freeing themselves up to allocate more time into building</p> |

| | |
|--|--|
| | <p>relationships and increasing their competitiveness.</p> <p>Increase Competitiveness</p> <p>a) Increased access to a niche market of consumers in case of adopting organic farming practices.</p> <p>b) Increased local consumer trust in products certified under-recognized sustainability standards like the proposed ECJP label, and ISO certificates.</p> <p>c) This is not only true for local customers but it also helps businesses access international markets after acquiring ISO certifications (specified in Section 3.2).</p> |
|--|--|

1. Corporate CSR

Environmental justice initiatives not only strengthen a company's external reputation but also resonate deeply within the talented workforce, making it a powerful tool for talent acquisition and retention. Eco-conscious individuals are increasingly drawn to organisations that reflect their values, preferring workplaces committed to sustainability and social responsibility. This alignment fosters a sense of purpose and pride, which enhances job satisfaction and cultivates a productive, engaged, and loyal team. As a result, such an environment builds a positive internal culture where productivity thrives, with employees motivated by a shared commitment to environmental and social impact.

Adopting sustainable energy projects not only reduces long-term energy consumption but also creates a diverse range of employment opportunities, surpassing those offered by traditional fossil fuel industries. The shift towards renewable energy necessitates the hiring of skilled workers for various roles, such as installation, maintenance, and operation of renewable energy systems. These jobs span from engineers and technicians to project managers and field staff, contributing to the growth of the local workforce. Additionally, as these renewable energy systems require ongoing maintenance and upgrades, they provide long-term, stable employment.⁴

Supporting vulnerable communities such as Marda, Bardala, and Al Ouja strengthens local economies by fostering resilience and reducing dependence on external trade. This approach is particularly crucial as Palestine faces increasing food demands, especially with the disruption of agricultural produce from Gaza, which no longer reaches the West Bank. By building local capacity, these communities can better meet domestic food needs and ensure economic stability.

2. Financial Institutions

Investing in sustainable practices helps businesses build resilience against economic and political instability, reducing long-term credit risks. By building resilience, companies can navigate economic and political instability more effectively, thereby reducing long-term credit risks. Additionally, blended finance structures involving development agencies and donors can further

⁴ Heidi Garrett-Peltier. (2017). Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic Modelling*, 61, Pages 439-447.

mitigate these risks by sharing the financial burden, making green projects less risky for banks and microfinance institutions (consult Annex I, 2, for examples). Moreover, such practices boost employee morale by creating a sense of purpose and enhance brand visibility. This public commitment to social responsibility can significantly improve a company's image, fostering greater customer loyalty.⁵

To incentivise sector development, offering low-interest rates during the initial phases of green projects can be highly effective. This early support helps businesses establish sustainable infrastructure, strengthening the market and creating a foundation for future growth. As businesses expand and scale, the demand for larger investments increases, further driving the development of the green sector and supporting long-term economic sustainability. These interconnected strategies highlight the multifaceted benefits of adopting green finance initiatives, not only for businesses but also for financial institutions and the broader economy.

3. Tech Startups

The technology sector in Palestine faces significant barriers to accessing financing, which limits the pipeline from innovative ideas to investable ventures. Development agencies and potential investors often seek tangible, structured projects for intervention, yet without a steady pipeline, gaining capital remains a challenge. Palestinian startups crossing paths with environmental justice have an increased level of access to grants, debt, or equity, networking opportunities, publicity, and capacity-building programmes, which are critical to supporting their growth and sustainability.⁶

In alignment with climate goals, Palestinian technology startups are well-positioned to explore innovations in water and energy efficiency (consult Annex I, 3, to view successful examples) as well as food technology. For instance, agritech startups can leverage data analytics, machine learning, and sensor technologies to help agribusinesses optimize crop yields, reduce waste, and promote sustainable practices. While innovative ideas such as hydroponic farming have emerged, they are still individual cases that cannot reach commercial scalability. Developing viable technologies for large-scale hydroponics could further enhance the agricultural landscape and address resource limitations and the intensity of labour of regular farms.⁷ By working directly with farmers and agribusiness owners, these startups gain valuable feedback through accessing field-testing environments, fostering ongoing product development.

As for collaboration with service providers, there is a significant opportunity to innovate within renewable energy, such as developing automated solar panel cleaning systems to remove dust and debris that can reduce efficiency by as much as 50% depending on location.⁸

4. Service Providers

⁵ Oxfordcorp. (2024). *The Rise of Sustainable Finance: Green Fintech Solutions*. tinyurl.com/5djm75d3; Yameen, J., Kijkasiwat, P., Hussain, A. et al. (2024). Green finance in banking industry: a systematic literature review. *SN Bus Econ* 4, 91. doi.org/10.1007/s43546-024-00683-w

⁶ Hancock, M. (2023). Funding Option on the Rise for Palestinian Startups. *Arabian Gulf Business Insight*. tinyurl.com/5brxebya

⁷ Anera. (2022). *World Soil Day*. anera.org/blog/world-soil-day/

⁸ Said, S; Islam, S; Radzi, N; Wekesa, C; Altimania, M; and Uddin, J. (2024). Dust impact on solar PV performance: A critical review of optimal cleaning techniques for yield enhancement across varied environmental conditions. *Energy Reports*, Volume 12, 2024, P. 1121-1141. doi.org/10.1016/j.egyr.2024.06.024

Service providers, including specialists in water, electricity, and solar power grids, play a critical role in the installation, management, expansion, and maintenance of industrial and civic applications. A notable successful example is the 2023 “Green Palestinian Economy” initiative, launched by Team Europe and the Palestinian Government, which allocated €47 million to climate adaptation projects within the private sector.⁹ This funding addresses crucial needs such as Gaza's coastal water aquifer and agricultural adaptation to climate change, underscoring a sustained commitment to sustainable energy and water infrastructure in Palestine. Further successful activities implemented in Palestine are detailed in Annex I, section 4.

By investing in shared infrastructure and technology integration, both service providers and agribusinesses can reduce costs and improve efficiency. These collaborations not only drive profitability and sustainability but also foster a more resilient agricultural ecosystem.

5. Farmers and Agribusinesses

The agricultural sector stands to gain significantly from green transformation. Modern sustainable farming practices are revolutionising how farms operate in developing countries.¹⁰ Through precision agriculture and smart irrigation systems, farmers are dramatically reducing their water consumption while improving crop yields.¹¹ These technologies, combined with organic farming practices, enable farmers to command premium prices in both domestic and international markets where demand for sustainably produced food continues to grow.¹²

Climate-smart agriculture also helps build resilience against increasingly unpredictable weather patterns. By diversifying crops and implementing soil conservation practices, farmers can better withstand climate-related challenges while reducing their operational costs.¹³ The introduction of renewable energy sources, particularly solar power for irrigation and processing, has helped many agricultural businesses reduce their dependence on expensive grid electricity or diesel generators.¹⁴

In the Occupied Palestinian Territory, agriculture contributed approximately \$980 million to the GDP in 2021, accounting for 6.5% of the total GDP.¹⁵ However, food supply chains face challenges, with moderate losses ranging from 12% to 22%, particularly notable in milk spoilage during summer

⁹ Wafa. (2023). *Team Europe launches joint initiatives to support green growth in Palestine*. tinyurl.com/5dd8k6t5; and Green Climate Fund. (n.a.). *State of Palestine*. greenclimate.fund/countries/state-palestine?form=MG0AV3

¹⁰ ICL Group. (2024, July 04). *Technologies revolutionizing agriculture (AgTech)*. icl-group.com/blog/technologies-revolutionizing-agriculture-agtech/

¹¹ Flawless. (n.d.). *Case Studies*. flowless.co/case-studies

¹² SCS Global Services. (2024, February 14.). *Consumer consciousness: The demand for ethical and eco-friendly produce*. SCS Global Services. ja.scsglobalservices.com/news/consumer-consciousness-the-demand-for-ethical-and-eco-friendly-produce

¹³ Safdar, M., Shahid, M. A., Yang, C., Rasul, F., Tahir, M., Raza, A., & Sabir, R. M. (2024). *Climate Smart Agriculture and Resilience*. In *Emerging Technologies and Marketing Strategies for Sustainable Agriculture* (pp. 28-52). IGI Global. doi.org/10.4018/979-8-3693-4864-2.ch002

¹⁴ Majeed, Y., Khan, M. U., Waseem, M., Zahid, U., Mahmood, F., Majeed, F., Sultan, M., & Raza, A. (2023). *Renewable energy as an alternative source for energy management in agriculture*. *Energy Reports*, 10, 344-359. doi.org/10.1016/j.egyrs.2023.06.032

¹⁵ PCBS. (2021). *Press report on economic forecasts for 2022*. pcbs.gov.ps/site/512/default.aspx?lang=en&ItemID=4146;

World Bank. (2023). *World Bank national accounts data. Agriculture, forestry, and fishing, value added*. data.worldbank.org/indicator/NV.AGR.TOTL.KD?locations=PS

months.¹⁶ Limited access to essential infrastructure, such as storage facilities, water and electricity grids, and market linkages, remains a significant barrier. Strategic investments in shared infrastructure—such as storage warehouses, water wells, and modern equipment—are critical to minimising food losses and unlocking new market opportunities for farmers.¹⁷ These improvements could bolster food security, reduce post-harvest waste, and enhance economic sustainability across the sector.

2.2 Benefits Across Selected Businesses

Below is a table of a project UNIDO, in collaboration with the EU, initiated with Palestinian manufacturers and businesses that have a heavy use of resources, highlighting the investments, return on investments and resources savings per year. Part of a Mediterranean-wide project, this programme identified tailored energy-saving measures through detailed audits of energy use across production and storage chains in Palestine. The examples vary from managing indoor climates and reducing energy waste, such as enhanced insulation for ovens, boilers, pipes, windows, and roofs, alongside installing air curtains to avoid entrance of insects and stabilise temperatures, reducing excessive heating or cooling.

Machinery modernisation, including upgrades, automation, and precise monitoring of motor speeds, fan operations, and lighting, further streamlined energy efficiency. Installing sub metres for specific departments or devices allowed accurate consumption tracking, particularly benefiting agribusinesses.¹⁸ The table below highlights the initiative's direct financial and resource savings, with Annex I, 5 outlining specific interventions.

Table 9: UNIDO's Switch MED-TEST Phase II & III Palestine Program Outcomes

| Company | Financial Savings | | | Resources Savings | | |
|---------------------------|-------------------|------------------|-------------------|-------------------|-------------------|-----------------|
| | Investment (€) | Savings €/yr. | Payback in yr. | Water %/yr. | Material %/yr. | Energy %/yr. |
| Switch MED-TEST II | | | | | | |
| Al Jebrini Group | 445,500 | 378,400 | 1.2 | 35 | - | 10 |
| Alhijaz Chocolate Company | 73,400 | 92,370 | 0.8 | 45 | 3 | 27 |
| Al-Qasrawi | 447,000 | 1,190,580 | 0.4 | - | 1.5 | 1.8 |
| Al-Zara'oun | 42,000 | 42,200 | 1 | - | 1.5 | 25 |

¹⁶ MAS. (2021). Food Security Bulletin. mas.ps/cached_uploads/download/2021/11/30/food-security-bulletin-22-english-1638263285.pdf

¹⁷ FAOUN, CIRAD, and the EU. (2023). Food Systems Profile - Palestine. tinyurl.com/mssyh7xp

¹⁸ Moustadama. (2024). Do More With Less Brochure. tinyurl.com/ys6yc3tb

| | | | | | | |
|---|-------------------|-------------------|-----|----|------|------|
| Haifa Food | 47,500 | 43,600 | 1.1 | 33 | 8 | 26 |
| Nakheel Palestine | 39,600 | 27,855 | 1.4 | - | - | 22 |
| Old City Coffee and Distribution | 1,550 | 4,560 | 0.3 | - | - | 3 |
| Pal Gardens | 462,000 | 125,400 | 3.7 | - | 2 | 24 |
| Siniora Food Industries | 72,370 | 104,696 | 0.7 | 27 | 1.8 | 16.4 |
| Sinokrot Chocolate and Confectioneries | 891,750 | 399,200 | 2.2 | - | 1 | 22 |
| Switch MED-TEST III | | | | | | |
| Arab Development Society | 328,916 | 277,037 | 1.5 | 45 | 50 | 16 |
| Al-Rawafed Food Company | 207,291 | 283,507 | 0.7 | 8 | 48.2 | 1.2 |
| Al'Ard Palestinian Agri-Products Ltd. | 4,493 | 48,310 | 0.1 | - | 13 | 1.4 |
| The Palestinian-Turkish Company for Food Manufacturing - Zeta | 314,250 | 119,874 | 2.6 | 61 | 54 | 1.3 |
| Beit Jala Pharmaceutical Company | 1,576,336 | 767,900 | 2 | - | 23.7 | 0.7 |
| Al-Wafa Plastic Industries | 2,366,529 | 880,596 | 2.7 | - | 73 | 3.5 |
| The National Carton Industry Company | 104,131 | 139,065 | 0.7 | - | 25 | 8.2 |
| Total | €7,425,616 | €4,875,150 | | | | |

2.2 National-Level Impact

Green practices generate jobs. Investing in renewable energy, particularly solar energy, provides a substantial boost to job creation compared to traditional fossil fuel industries. For every \$1 million

invested, solar energy can create nearly 7.5 full-time jobs, significantly surpassing the 2.65 jobs generated by fossil fuel investments. This marked difference underscores the labour-intensive nature of solar energy, where employment opportunities span from research and development to installation, maintenance, and operational phases.¹⁹

Expanding renewable energy projects enhances national energy security. Palestine's national energy enhancing national energy security. The transition to renewable energy sources is helping many developing countries reduce their dependence on imported fossil fuels, improving their balance of trade and energy security. In Palestine, for example, the high solar energy potential with approximately 3,000 sunshine hours annually offers a path to greater energy independence and economic resilience.²⁰ Today, the West Bank is almost entirely dependent on electricity imports from Israel (over 90% of available electricity); the rest is imported from Jordan (80 megawatts up from 40 megawatts recently in 2022) or domestically produced (renewable energy and private generators). In the Gaza Strip, the Gaza Power Plant generated about 70 megawatts using diesel, funded by Qatar, while about 120 megawatts were imported from Israel. This left a deficit of about 240 megawatts in the electricity supply in the Strip, resulting in the average availability of electricity only 12 hours per day. The solar power capacity is only 159.5 megawatts in the West Bank and 19 megawatts in the Gaza Strip.²¹ With the outbreak of war on October 7th and the ongoing escalations, the Gaza Strip's infrastructure has been severely compromised. The extent of damage to the region's investment in solar power remains uncertain, but early reports suggest around 65% damage to solar panels in the Gaza Strip.²² Given the vital role solar energy plays in enhancing energy security, restoring and expanding solar investments is crucial for Gaza's resilience and sustainable recovery.

Nation-wide access to international funding increases. By showcasing a national commitment to sustainability, Palestine could attract more international grants, loans, investments, and aid from green funds, development banks, and international institutions. This funding could be channelled into expanding the energy and water grids, investing in nation-wide initiatives, similar to Massader collaborating with the European Investment Bank and the Ministry of Education to supply schools with solar panels (consult Annex I, section 4), upgrading water and waste management systems, and supporting green startups.

¹⁹ Heidi Garrett-Peltier. (2017). Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic Modelling*, 61, Pages 439-447.

²⁰ Hamada, S., & Ghodieh, A. (2021). Mapping of Solar Energy Potential in the West Bank, Palestine Using Geographic Information Systems. *Papers in Applied Geography*, 7(3), 256–273. doi.org/10.1080/23754931.2020.1870540

²¹ PCBS. (2022). *Electricity Capacity of Solar Cells in Palestine by Region and Governorate, 2021* [Translate from Arabic]. pcbs.gov.ps/Portals/Rainbow/Documents/PV_Palestine_Gov_A.html

²² Relief Web. (2024). *Damage assessment of solar panels in the Gaza Strip as of 29 March 2024*. tinyurl.com/xv5rjwa

3. Frameworks and Best Practices for Climate Resilience

3.1 Climate Justice Practices and Examples in Palestine

In developing effective climate resilience strategies for the Palestinian private sector, priority setting and resource integration play crucial roles in ensuring successful implementation and sustainable outcomes. Businesses should initially focus on measures that require minimal infrastructure investment while delivering quick returns, particularly those that can be readily implemented at the facility level.²³ This pragmatic approach allows businesses to build momentum in their sustainability journey while strengthening community resilience. A key success factor lies in the strategic integration of resources, where companies identify and leverage synergies between water, energy, waste, and food management systems.

In the water sector, adaptation practices focus on conserving and optimising water use, especially as climate variability increases pressure on water supplies. The implementation of smart water metres, for example, allows real-time monitoring of water usage, empowering businesses to make informed decisions about their consumption and detect potential leaks early.²⁴ Water purification is another crucial practice, especially in regions with limited access to clean water sources. By removing contaminants and impurities, affordable purification systems (See Thompson, 2015) make water safe for drinking and agricultural use.²⁵ Rainwater harvesting further supports water conservation by capturing rainwater that can be stored for use during dry periods, reducing dependence on imported water²⁶ even with the restricting Israeli practices.²⁷ Mitigation efforts like reducing water waste and recycling wastewater add further resilience by ensuring that water, once used, can be cleaned and repurposed for non-potable uses.

The energy sector aims to reduce dependency on fossil fuels and increase efficiency in energy use. Investing in energy-efficient equipment, machinery, and infrastructure allows businesses and communities to consume less energy while maintaining productivity.²⁸ These advancements are particularly beneficial in high-energy sectors like manufacturing, where improved equipment can significantly cut energy costs. Solar energy and waste-to-energy technologies contribute to sustainable energy production, helping mitigate the environmental impact of traditional energy

²³ MOUSTADAMA. (2024). *Do More With Less Brochure*. tinyurl.com/ys6yc3tb

²⁴ Sánchez, A. S., Oliveira-Esquerre, K. P., dos Reis Nogueira, I. B., de Jong, P., & Filho, A. A. (2020). Water loss management through smart water systems. *Smart Village Technology: Concepts and Developments*, 233–266. doi.org/10.1007/978-3-030-37794-6_12

²⁵ Thompson, M. (2015). A critical review of water purification technology appropriate for developing countries: Northern Ghana as a case study. *Desalination and Water Treatment*, 54(13), 3487–3493. doi.org/10.1080/19443994.2014.922309

²⁶ Amnesty International. (2017, November 29). *The Occupation of Water*. [amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/](https://www.amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/)

²⁷ Schild, Johanna E. M., Luuk Fleskens, Michel Riksen, and Sameer Shadeed. "Economic Feasibility of Rainwater Harvesting Applications in the West Bank, Palestine." *Water* 15, no. 6 (2023): 1023. <https://doi.org/10.3390/w15061023>

²⁸ Oyedepo, S. O. (2012). On energy for sustainable development in Nigeria. *Renewable and sustainable energy reviews*, 16(5), 2583–2598. <https://doi.org/10.1016/j.rser.2012.02.010>

sources.²⁹ Solar power harnesses renewable sunlight, reducing greenhouse gas emissions, while waste-to-energy systems convert organic waste into biogas or electricity.

Waste management practices target both reduction and repurposing of waste materials, minimising environmental impact while creating value in the process. Composting, for example, transforms organic waste into nutrient-rich soil amendments that can replace fertilisers.³⁰ Converting organic waste into animal feed presents a profitable business opportunity, as companies can produce and sell feed made from waste. Plus, agribusinesses can reduce costs if they produce their own feed from organic waste.³¹ To further reduce waste, businesses can train employees on waste sorting with on-site segregation bins, ensuring that materials suitable for recycling are separated from those bound for disposal.³² Product design innovation also plays a role in waste reduction, as designing products with recyclable materials from the start can extend their life cycle and reduce their environmental footprint (See Al-Wafa Plastic example in Annex I, section 6).

Food security practices are essential for building resilient agricultural systems that can withstand climate change and food supply disruptions. Crop diversification, for instance, helps farmers avoid the risks associated with monoculture farming, spreading their income sources and protecting against potential crop failure. Developing climate-resistant crop varieties is an innovative approach to adaptation, as these crops are specifically bred to withstand extreme weather conditions, pests, and diseases. To reduce food waste, improvements in storage and distribution are vital, ensuring food reaches markets before it spoils. Urban agriculture also mitigates food insecurity by producing food within cities, reducing transportation emissions, and supplying fresh produce locally. Sustainable farming practices, including organic farming, support long-term soil health, improve biodiversity, and limit the use of chemical inputs, contributing to food security and environmental health.³³

Summary of climate justice practices with practical examples of companies implementing sustainable water, energy, and waste management solutions is provided in Table 10.

Table 10: *Climate justice practices for water, energy, and waste*

²⁹ Khan, I., & Kabir, Z. (2020). Waste-to-energy generation technologies and the developing economies: A multi-criteria analysis for sustainability assessment. *Renewable Energy*, 150, 320–333. <https://doi.org/10.1016/j.renene.2019.12.132>

³⁰ Singha, R., & Singha, S. (2024). Composting for a Sustainable Future: Turning Waste Into Nutrient-Rich Soil. In *Water-Soil-Plant-Animal Nexus in the Era of Climate Change* (pp. 279–297). IGI Global. <https://doi.org/10.4018/978-1-6684-9838-5.ch013>

³¹ Donner, M., Gohier, R., & de Vries, H. (2020). A new circular business model typology for creating value from agro-waste. *Science of the Total Environment*, 716, 137065. <https://doi.org/10.1016/j.scitotenv.2020.137065>

³² Rajalakshmi, S., Amzad Basha, K., & Asif Jamal, G. A. (2023). *A Manual on Waste Management Audit*. Laser Park Publish House, Coimbatore, Tamil Nadu, India. 163p. nsfonline.org.in/wp-content/uploads/2023/04/A-Manual-of-Waste-Management-Audit-by-Nature-Science-Foundation-2023-1.pdf

³³ Kharel, P., & Sahoo, S. (2023). Advancing Sustainable Agriculture: A Comprehensive Review of Organic Farming Methods and Their Implications for a Resilient Future. *J Food Chem Nanotechnol*, 9(S1), S335–S341. doi.org/10.17756/jfcn.2023-s1-043

| Sector | Practices | Examples |
|--------|---|---|
| Water | <p>Adaptation: - Implement smart water metres to monitor usage in real-time (water conversation)</p> <ul style="list-style-type: none"> - Water purification - Rainwater harvesting <p>Mitigation: - Reduce water waste</p> <ul style="list-style-type: none"> - Wastewater recycling | <p>The Palm Farmers Cooperative Association (PFCA), in collaboration with Snipe³⁴ installed an advanced irrigation control system that enables remote monitoring and control of water to optimise water distribution from five aquifer wells supplying 25 member farmers</p> <p>Zeta fixed water leakages and installed submeters to monitor efficiency, reducing its water consumption by 61%. The company also introduced a wastewater treatment system to desalinate pickling water, producing 1,500 m³ annually sold to farmers for irrigation</p> |
| Energy | <p>Adaptation: - Investment in Energy-efficient equipment, machines and infrastructure</p> <p>Mitigation: - Implement solar energy</p> <ul style="list-style-type: none"> - Use waste to generate energy | <p>Jannati uses a biogas digester and a gas-electricity converter to turn organic vegetable waste into cooking gas and electricity. Along with solar energy, all of its energy sources are 100% renewable</p> <p>Old City Coffee and Distribution – Izhiman Coffee subsidiary invested nearly €1,500 to achieve annual savings of €4,500 by reducing non-essential power consumption, maintaining production lines efficiently, and enhancing ventilation systems.</p> |
| Waste | <p>Adaptation: - Make composting from organic waste</p> <ul style="list-style-type: none"> - Make animal feed from organic waste <p>Mitigation: - Recycling</p> <ul style="list-style-type: none"> - Reducing waste generation - Install on-site waste segregation bins and train employees on waste sorting - Innovate in product design to incorporate recyclable materials | <p>Paperpal collects carton and paper waste from schools in addition to grinded palm frond waste from date farms to make toilette and kitchen papers as final products</p> <p>Purix collects carton waste from carton manufacturing companies to make cartons/egg packaging by reusing water</p> <p>Zadona uses the surplus of Palestinian farmers in the Jordan Valley agricultural products such as cucumber, olives, pepper, and eggplants to produce pickles.</p> |

³⁴ Snipe is a hardware and a software that connects to irrigation systems in farms to perform a completely automated fertigation.

| | | |
|-------------|---|--|
| Food | <p>Adaptation: - Implement crop diversification to reduce dependency on single food sources</p> <ul style="list-style-type: none"> - Improve water management techniques for agricultural resilience - Develop climate-resistant crop varieties <p>Mitigation: - Reduce food waste by improving storage and distribution systems</p> <ul style="list-style-type: none"> - Promote urban agriculture initiatives for local food production - Implement sustainable and organic farming practices | <p>Canaan Fair Trading Company works with 1,700 farmers in the northern and central West Bank to export organic agricultural products generating 1,000 tons of olive oil annually, along with almonds, sesame, and thyme. These products reach over a million consumers across 22 countries.³⁵</p> |
|-------------|---|--|

By prioritising solutions that address multiple challenges simultaneously and utilising locally available resources and technologies, businesses can maximise their impact while minimising implementation costs. This integrated approach not only enhances operational efficiency but also ensures that climate resilience measures are both economically viable and environmentally effective in the Palestinian context, where resource constraints and infrastructure limitations necessitate innovative and practical solutions.

An example of this integrated approach is the Palestinian-Turkish Company for Food Manufacturing, Zeta, located in the village of Zeta near Tulkarm. Through the EU-funded MED TEST III project, Zeta implemented multiple water conservation and wastewater reuse measures to improve resource efficiency and contribute to climate resilience. By fixing water leakages, installing water submeters, and collecting and reusing fresh water flows, Zeta achieved a 61% reduction in overall water consumption. Additionally, Zeta implemented a reverse osmosis treatment system to desalinate pickling wastewater, enabling the company to sell 1,500 m³ of desalinated water annually to local farmers for irrigation.³⁶

Table 11: Zeta’s sustainability initiatives - investment, savings, resource conservation, and environmental impact

| Actions | Economic key figures | Resource savings | Environmental impacts |
|---------|----------------------|------------------|-----------------------|
|---------|----------------------|------------------|-----------------------|

³⁵ Ruba Anabtawi. (2019, April 1). *Organic Migration ... when Palestinians Plant Chemical-Free Food for Americans and Japanese*. <https://www.maan-ctr.org/magazine/article/2181/>

³⁶ UNIDO. (2024). *Med TEST III | Turkish-Palestinian Manufacturing Food Company (Zeta)*. Switchmed. https://switchmed.eu/wp-content/uploads/2024/01/Zeta_EN.pdf

| | Investment (€) | Savings (€) per year | |
|--------------------------------|----------------|----------------------|---|
| Energy conservation measures | 60,101 | 57,927 | 245 tons of CO2 3,647 m3 of wastewater |
| Water savings | 15,667 | 8,091 | |
| Wastewater treatment and reuse | 189,702 | 4,832 | |
| Technology changes | 48,780 | 49,024 | |
| TOTAL | 314,250 | 119,847 | |

This initiative exemplifies how Palestinian businesses can enhance climate resilience through practical water-saving technologies, demonstrating the economic and environmental benefits of a resource-efficient approach in a region facing water scarcity.

3.2 Cross-sectoral Practices (ISO Standards and Certifications)

The Palestinian private sector's adoption of international environmental standards has become increasingly crucial for both climate resilience and market competitiveness.³⁷ Implementing ISO certifications helps businesses increase profit and is directly related to financial performance.³⁸

The ISO 14000 Environmental Management System provides a comprehensive framework. According to recent regional assessments, businesses implementing ISO 14001 can streamline their operations to reduce resource consumption and waste, which often leads to cost savings in areas such as water and energy. This can be particularly beneficial for businesses facing challenges like water scarcity and limited energy access. Additionally, implementing these standards can improve operational efficiency, reduce environmental risks, and boost corporate image, making businesses more resilient and attractive to eco-conscious customers and partners.³⁹ This is especially significant given that Palestinian businesses face water scarcity and energy access challenges.

Palestinian businesses can benefit from several key international certifications. To support climate resilience in businesses, several ISO standards provide actionable frameworks that help organisations manage climate-related risks effectively. Key certifications include:

- ISO 14090 focuses on managing climate change adaptation, helping organisations create and assess strategies for addressing climate impacts.

³⁷ World Bank. (2023). *Climate Change Adaptation in the Middle East and North Africa*.

³⁸ Manders, B., de Vries, H., & Blind, K. (2013). The relationship between ISO 9001 and financial performance: a meta-analysis. In *Academy of Management Proceedings*, Vol. 2013, No. 1, p. 12255. Briarcliff Manor, NY 10510: Academy of Management. <https://doi.org/10.5465/AMBPP.2013.12255abstract>

³⁹ Mohamed, S. T. (2001). The impact of ISO 14000 on developing world businesses. *Renewable Energy*, 23(3–4), 579–584. [https://doi.org/10.1016/S0960-1481\(00\)00145-2](https://doi.org/10.1016/S0960-1481(00)00145-2)

- ISO 14091 addresses vulnerability and risk assessment, guiding companies in analysing potential climate hazards.
- ISO 14001 sets standards for environmental management, indirectly supporting climate mitigation through efficient resource use and reduced emissions.⁴⁰
- ISO 50001 - Energy Management: Enables businesses to establish systems and processes to improve energy performance. Supports compliance with international energy efficiency requirements.
- ISO 14080 is a standard that guides organisations in managing climate change by providing frameworks for greenhouse gas mitigation and adaptation actions.

Al-Wafa Plastic Industries, a packaging manufacturer in Hebron exemplifies successful implementation of environmental management systems. With 250 employees and operations extending across the West Bank and internationally, the company produces various packaging solutions including plastic containers, caps, and gallons. Through the TEST MED project, the company identified and implemented resource efficiency measures with remarkable results. Implementation of these measures led to significant environmental impacts, including materials consumption reduction by 3.5%, energy consumption reduction by 73%, annual reduction of 4,240 tons of CO2 emissions, and 83 tons of solid waste reduction. The successful implementation of these resource-efficiency measures contributed to their achievement of ISO 14001 certification.⁴¹

The company has also undertaken additional environmental initiatives, including installing a 600-kilowatt on-grid solar system and adopting innovative Injection-Compression Molding techniques that reduce product weight by 30% while maintaining quality. Their circular economy approach includes recycling raw materials into plastic granules for non-food packaging production, and they have established a 3,000-square-metre green garden to support biodiversity and carbon emission reduction in the vicinity of their facility.⁴²

4. Actionable Steps for Businesses

Climate resilience in the Palestinian private sector requires systematic implementation, where businesses progress gradually while adapting to changing conditions and market demands. Success depends on clear planning, resource efficiency, and strong stakeholder engagement.⁴³

Priority Steps for Businesses:

⁴⁰ ISO. (n.d.). ISO 14000 family. <https://www.iso.org/standards/popular/iso-14000-family#:~:text=ISO%2014001%20provides%20requirements%20with,challenges%20such%20as%20climate%20change>

⁴¹ UNIDO. (2024). Med TEST III | Al-wafa Plastic Industries. Switchmed. <https://switchmed.eu/wp-content/uploads/2024/01/Al-Wafa-Plastic-Industries-WPI-EN.pdf>

⁴² UNIDO. (2024). Med TEST III | Al-wafa Plastic Industries. Switchmed. <https://switchmed.eu/wp-content/uploads/2024/01/Al-Wafa-Plastic-Industries-WPI-EN.pdf>

⁴³ Moustadama. (2024). Do More With Less Brochure. <https://tinyurl.com/ys6yc3tb>

- Conduct comprehensive climate risk and resource audits to identify key areas for improvement
- Develop a prioritised action plan with clear metrics and timelines
- Establish resource management systems for energy, water, and waste
- Implement renewable energy solutions, particularly solar power systems
- Create closed-loop production systems and waste reduction programs
- Build partnerships with local suppliers and waste management facilities
- Provide employee training on sustainable practices and resource optimization
- Explore green financing options through PAIC, Munshaaty, and local banks
- Develop climate-resilient products and eco-friendly packaging solutions
- Build community partnerships and support environmental initiatives
- Establish emergency funds and backup systems for climate disruptions
- Document and share successful strategies within business networks

TASK IV | Management, Engagement, and Sustainability Plan

1. Introduction

This report is part of the Environmental and Climate Justice Program (ECJP), a comprehensive initiative funded by the Swedish International Development Cooperation Agency (SIDA) and implemented by We Effect in collaboration with the Palestinian Agricultural Institutions Coalition (PAIC). PAIC comprises six leading Palestinian NGOs—Palestinian Agricultural Relief Committee (PARC), Palestinian Hydrology Group (PHG), Land Research Centre (LRC), MA'AN Development Centre, the Applied Research Institute – Jerusalem (ARIJ), and Al Rowad. Together, these organisations are committed to addressing environmental and climate challenges in Palestine, emphasising the principles of climate justice and equitable access to resources for marginalised communities.

The MESP framework is developed to integrate private sector actors into Palestine's climate resilience efforts by fostering environmentally and financially sustainable practices. It recognizes that addressing climate change requires a multi-stakeholder approach that includes businesses as key contributors to building community resilience. By aligning the interests of the private sector with the goals of climate justice, the MESP promotes sustainable management, strategic engagement, and long-term resilience.

This report provides a strategic framework for businesses, with a specific focus on beneficiaries of ECJP grants, to adopt best practices and contribute to Palestine's environmental resilience.

In a context where climate change exacerbates existing social, economic, and political inequities, the MESP framework is designed to create shared value for businesses and communities alike. This report showcases best practices and actionable steps for integrating environmental, social, and governance (ESG) principles into business operations, illustrating how climate-conscious strategies can drive economic growth and social progress.

The key objectives of this plan is the following:

1. **Promote Sustainable Business Practices:** Enable businesses to adopt and integrate environmentally sustainable operations that align with the goals of the Environmental and Climate Justice Program (ECJP), ensuring long-term resilience and financial viability.
2. **Enable Financial Resource Eligibility:** Develop tailored strategies and capacity-building initiatives to ensure businesses meet the criteria for accessing grants, loans, and other financial resources essential for implementing and scaling green initiatives.
3. **Foster Community Impact:** Align business practices with the needs of local communities, ensuring fair resource access and contributing to equitable climate adaptation and resilience for marginalised groups.

2. Theory of Change: MESP Framework

The vision is to see businesses that adopt climate-resilient practices grow and thrive, expanding geographically and diversifying their products and services to achieve financial stability while contributing to environmental sustainability. These businesses will adapt to climate challenges while aligning their offerings with the real and evolving needs of the communities they serve, creating shared value for the environment and society. The main components of this vision are:

- **Management:** Establishing robust operational frameworks to support green practices, by streamlining production operations to the extent possible, and creating the ability to produce operational data that can be utilized to enhance business performance.
- **Engagement:** Understanding community's needs through direct communication with the community's stakeholders; customers, donors, cooperatives, government.
- **Sustainability:** Embedding financial viability while maintaining environmental resilience into business operations, by diversifying revenue streams through geographical expansion or products diversification.

Role of Management

Management plays a critical role in guiding businesses to adopt and scale climate-resilient practices. A robust management framework ensures that operations are aligned with sustainability goals while maintaining financial stability and operational efficiency. However, many medium-sized businesses face challenges such as a lack of structural capacity, inefficient resource allocation, and limited expertise in managing the transition to sustainable practices. These gaps often hinder their ability to integrate green practices into their operations effectively.

The solution lies in developing a tailored management framework for each business that helps them streamline their back-end operations, and possibly automate some operations gradually. This framework should outline clear goals, responsibilities, and measurable key performance indicators (KPIs) tied to sustainability and growth. Streamlining operations allow business owners to:

- 1) Systematically gather data on operations, and thus be able to identify bottlenecks and solve them. Data gives a subjective view, and eliminates biased decisions, allowing development to take place on most needed aspects
- 2) Streamlining and automation saves time and money that would otherwise be spent on routine operations, while the disposable money and time should be put in development, engagement with community, research, and business development.
- 3) Streamlining and automating operations makes companies investable, as companies' operations and supply chains would function without bureaucracy, making businesses more resilient, efficient, and faster, and thus, more attractive to investors and financiers.

Role of Engagement

Engagement is crucial for medium-sized businesses to connect with their communities, understand their needs, and align products and services accordingly. By fostering a relationship with the community, businesses can better serve their customers while remaining responsive to the

constantly changing environment. When businesses actively engage with the people they serve, they can develop offerings that are more relevant and impactful, which ultimately boosts profitability and strengthens their market position.

The challenge lies in the often-limited interaction between businesses and their communities, leading to a misalignment of services and missed opportunities for growth. Businesses can overcome this by establishing continuous feedback mechanisms, such as conducting community surveys, focus groups, or consultations. These tools provide real-time insights into changing needs and preferences, enabling businesses to adapt quickly. Collaborating with local leaders and organizations can help bridge gaps in understanding and foster mutual trust. Moreover, leveraging digital tools and platforms for engagement allows businesses to collect data efficiently and stay informed about emerging trends. This dynamic approach ensures that businesses remain competitive and relevant in the markets they serve.

Role of Sustainability

Environmental sustainability is a cornerstone of scaling climate-resilient businesses. Environmental sustainability is a major enhancer of financial sustainability, as it means resource optimization. However, many medium-sized businesses struggle with adopting sustainable practices due to cost barriers. Financial sustainability can be achieved through diversifying revenue streams, sales, and business development. To address these challenges, businesses must focus on resource efficiency, optimizing water and energy usage, but also focus on sales and diversified revenues geographically if possible, to be more immune to political changes and struggles in Palestine and the region.

Table 12: Theory of Change

| Focus Area | Objective | KPIs |
|------------|--|---|
| Management | Streamline operations to support green practices and enhance performance. | <ul style="list-style-type: none">- % of operations automated/streamlined- % reduction in operational bottlenecks- % of operational data utilized for decision-making |
| Engagement | Branding around climate resilience, to foster strong relationships with community stakeholders and align offerings with their needs, pulling them into the brand instead of pushing the brand’s products, which is costly and inefficient. | <ul style="list-style-type: none">- Number of segments increased in a period of time - measuring Brand Perception, and brand equity |

| | | |
|-----------------------|---|---|
| Sustainability | Diversification in offerings and target markets; Achieve financial and environmental sustainability through relying on growing revenues rather than hunting grants. | - % of revenue from diversified streams (e.g., geographic or product diversification) |
|-----------------------|---|---|

3. Companies Overview and SWOT Analysis

3.1 Paper Pal

Paperpal is a sustainable manufacturing company that transforms carton and paper waste, as well as grinded palm fronds waste from date farms, into toilet and kitchen paper products. The company employs an innovative recycling process that involves mixing these waste types, boiling and heating them with water, drying through baking sheets, and producing rolled paper products for wholesale under a white-label (unbranded) model.

Paperpal's operations address critical environmental issues by utilizing waste that would otherwise be burned or dumped in landfills, where it contributes significantly to solid waste in Palestine. With carton and paper waste comprising 25% of the region's solid waste and palm fronds taking up to 50 years to decompose naturally, Paperpal's recycling approach provides a local, affordable, and environmentally friendly solution. The company's products are priced 40-50% lower than non-recycled alternatives, making them competitive in both local and international markets.

The pilot grant: Before the grant, Paperpal used 125 cubic meters of water daily in its processes to recycle paper waste, and aimed to enhance efficiency and environmental sustainability by acquiring a water treatment machine to reduce this consumption to 25 cubic meters per day. The company also utilizes palm fronds' oil cake as an energy source for its drying process, further minimizing environmental impact. The water treatment machines acquired by the grant has enabled Paperpal to reduce it only to 80 cubic meters, as the aftersale of the machines providers became unresponsive after they sold it to Paperpal, and Paperpal has faced many technical difficulties in reaching its goals of water usage.

Current challenges for management, engagement, and sustainability:

Paperpal has several challenges related to operations and business development. On the operational side; Paperpal must rely on using systems that document its inventory and sales transactions. It is a challenge as the management of Paperpal realizes that. Using systems can take time at the beginning, which the management hesitated to do due to the limited number of employees, which is a result of decreased sales. Which brings us to the sales aspect; Paperpal relied on selling to Israeli distributors. During the war 80% of his sales were eliminated, as Israeli distributors stopped buying from Paperpal, due to personal reasons related to the war.

Paperpal started selling to Palestinian distributors, but the sales efforts were inefficient, due to the absence of a brand, and the reliance on white labels, sold to Palestinian distributors, in an unstructured effort by the management of Paperpal. The company has also tried to sell in Jordan,

which again was inconsistent due to the absence of a brand that would build a loyal consumer base for Paperpal, which as a result would push this demand on distributors, and distributors in an ideal scenario would return to buy again from Paperpal. The absence of a brand and the lack of structured approach to open new relationships with distributors are the essence of Paperpal's problem.

| Internal Factors | |
|---|--|
| Strengths (+) | Weaknesses (-) |
| <ul style="list-style-type: none"> - Budget-friendly, costing 40% less than non-recycled products. - Appeals to eco-conscious consumers in an untapped market. - Immune to political changes in terms of production; Relies on locally sourced waste (carton, paper, palm fronds), reducing dependency on imported raw materials. - White-label production enables cost-efficient B2B partnerships. - ISO 140001 certification (climate -related ISO standards) increases possibility for exporting | <ul style="list-style-type: none"> - Limited market presence and insufficient marketing initiatives. - Lack of internal data due to inefficient use of point of sale and inventory systems - Dependence on white-labeling restricts brand recognition and loyalty. - Perception of recycled products as lower quality among some consumers. - Challenges in scaling waste collection and production capacity. - Lack of access to international investors. |
| External Factors | |
| Opportunities (+) | Threats (-) |
| <ul style="list-style-type: none"> - Reduced reliance on imported raw materials amidst disrupted supply chains. - Expanding partnerships with eco-conscious stores in urban centres like Ramallah and other cities - Expanding to other regional markets - Building a brand would enhance distribution and building relationships - Attracting investment to diversify products such as A4 papers (recycled) which goes through mutual assembly line and operations as the current products | <ul style="list-style-type: none"> - Cultural barrier among a large segment of the Palestinian community - The Israeli market is volatile and may not offer stability to match the company's production and scale - Exporting during political instability is extremely costly and difficult, especially with limited prospects abroad - Low adoption rates in rural areas, where traditional alternatives might dominate. |

3.2 Purix

Purix is a sustainability-focused company specializing in recycling carton waste into durable, eco-friendly egg cartons and packaging. The company sources carton waste from manufacturing companies and compressing facilities, transforming it through an efficient process that reuses water multiple times and utilizes sunlight and natural heat for drying, minimizing energy consumption. Purix's products are in high demand due to their competitive advantages: they are 20% cheaper than imported alternatives and of superior quality, making them highly durable. With operations based in Beit Dakko, the company contributes to local employment, particularly by employing women from the village. Environmentally sustainable and financially profitable, Purix's innovative approach not only reduces carton waste but also supports local chicken farmers with affordable, practical solutions, positioning the business for scalability amidst rising demand for sustainable products.

The pilot grant: The pilot was used to extend production capacity in order to meet the increasing demand of Purix products.

Current challenges for management, engagement, and sustainability

The pilot has successfully increased Purix capacity, but the bottleneck of the production persists; drying the cartons as the last stage of the production relies on the sun heat. During winter, more than 50% of the production is delayed due to this process. The solution would be to streamline and automate the drying process, which can be achieved through investing in a solar energy -powered dryer (closed environment), or by investing in a gas-powered dryer, which can be very expensive in operating expenses (gas consumption).

| Internal Factors | |
|--|--|
| Strengths (+) | Weaknesses (-) |
| <ul style="list-style-type: none">- The product is priced 20% lower than imported alternatives, making it highly competitive.- It offers high durability, meeting the needs of local markets- The company has established a strong distribution network, with five major egg carton consumers/wholesalers) now acting as distributors.- Recycling processes are efficient, reusing water and relying on sun-heat drying to save energy. | <ul style="list-style-type: none">- Logistics costs are high due to waste collection from Hebron, increasing both expenses and carbon emissions.- The company faces a capital barrier, which limits its ability to scale operations and sales- Manual drying of the final product decreases productivity in winter to 50%- Nearly 20% of the water input is polluted, requiring additional treatment.- Basic packaging design limits market appeal and branding opportunities. |

| | |
|--|---|
| | <ul style="list-style-type: none"> - Lack of exposure to international investors. |
| External Factors | |
| Opportunities (+) | Threats (-) |
| <ul style="list-style-type: none"> - Local waste collection from neighbouring areas could reduce costs and carbon emissions. - There is room for geographical expansion, as the concept has already proven successful. - Branding; developing modern, coloured, and branded packaging could attract new market segments. - Growing demand for cost-effective, eco-friendly products provides an opportunity for market growth. | <ul style="list-style-type: none"> - The market has low entry barriers, making it easy for competitors to enter. - Heavy reliance on two distributors limits control over market presence. - Market demand and raw material availability can be volatile, affecting operational stability. |

3.3. Snipe

Snipe is a pioneering agricultural technology company specializing in **computerized irrigation and fertilization (fertigation)** systems powered by **Internet of Things (IoT)** technology. Their solution integrates locally assembled hardware (computerized controllers) with advanced software to fully automate the irrigation and fertilization process. By optimizing the amounts of water and fertilizers used, Snipe enables farmers to simultaneously perform these operations remotely without manual intervention, saving both time and money.

The company is particularly relevant to the Palestinian agricultural sector, targeting the date palm industry, which is a vital economic subsector, especially in Jericho and the Jordan Valley. Their system contributes to addressing critical water management challenges while enhancing farming efficiency. Despite some limitations, such as the need for compatible irrigation networks and reliance on liquid chemical fertilizers, Snipe's technology demonstrates significant potential to improve resource utilization, reduce costs, and promote sustainable farming practices.

The grant pilot: current efforts include demonstrating the system on 200 dunams of the Palestinian Farmers Cooperative Association (PFCA), showcasing its efficiency and scalability for adoption by date farmers and beyond. The pilot has successfully achieved its goals of serving the target farmers, and MA'AN/ We Effect's recommendations for Snipe to adopt soil and water sensors have helped Purix to optimize its service to these farmers, according to Snipe's management team.

Current challenges for management, engagement, and sustainability

The most important challenge Purix is facing today is the reliance of farmers on grants to buy Snipe's product. The price of a Snipe product ranges from \$7,000 - \$15,000, and farmers are not equipped with financing options besides grants in order to buy Snipe's products.

The second challenge is the reliance on experts to install their products at the farm of any client, this limits their ability to expand geographically outside Palestine. Streamlining the hiring process and building a modular operations model with calculated transferable steps is essential for Snipe;s future to expand sales.

| Internal Factors | |
|--|---|
| Strengths (+) | Weaknesses (-) |
| <ul style="list-style-type: none">- Efficient fertigation ensures optimal water and fertiliser distribution, boosting productivity.- Unique, in-house software with no direct local competition.- Skilled technical team of engineers across diverse fields.- Backed by a \$30,000 investment from the Higher Council for Innovation and Excellence.- Partnerships with donor programmes like USAID's Qatra enhance credibility and market access. | <ul style="list-style-type: none">- Heavy reliance on donor-funded sales (70% of buyers).- Farmers face financial barriers to adopt without subsidies or loans.- Data collection limited to Palestine; expansion in other markets requires farmer permissions.- Reliance heavily on technical experts for the installation of the products, increasing the price to farmers- Lack of exposure to international investors. |
| External Factors | |
| Opportunities (+) | Threats (-) |
| <ul style="list-style-type: none">- Minimal competition in neighbouring markets like Jordan and the Arab world.- Growing demand for agricultural automation due to water scarcity and efficiency needs.- Sustainability focus attracts grants and CSR funding.- Potential collaboration with agricultural organisations and cooperatives to scale | <ul style="list-style-type: none">- Limited farmer investment capacity due to economic challenges.- Political instability and settler violence restrict land access and reduce demand.- Dependence on donor funding poses risks if support is withdrawn.- Scalability is bottlenecked by the complex installation procedures that require skilled labour. |

| | |
|--|--|
| adoption. <ul style="list-style-type: none">- Rich data collected from users in Palestine supports product optimisation and insights. | |
|--|--|

4. Strategic Framework: Management, Engagement, and Sustainability for Climate-Resilient Businesses

4.1. Management: Streamlining Operations for Investment Readiness

Management forms the backbone of a successful climate-resilient business. A robust management framework ensures operational efficiency, improves decision-making, and prepares businesses for scalability and investment. This involves strategic planning, automation, and fostering a culture of data-driven operations.

Key Components of the Management Framework:

- **Operational Efficiency:** Climate-resilient businesses often face challenges in repetitive tasks and inefficient workflows. Streamlining operations through automation and technology integration, such as inventory management systems, sales tracking software, and performance dashboards, can reduce errors, enhance productivity, and save costs. For instance, automating procurement processes can cut lead times by 30%-50%, increasing profitability.
- **Data-Driven Decision-Making:** Building systems to collect and analyze operational data is critical for strategic planning and attracting investors. Metrics such as resource utilization, cost-efficiency, and sales performance must be monitored and analyzed in real-time. These insights are essential for identifying growth opportunities and adjusting strategies. Cloud-based solutions like ERP systems enable centralized data access, increasing transparency and reliability for stakeholders.
- **Investment Readiness:** Investors are more likely to support businesses that showcase financial and operational transparency. A streamlined management framework should include measurable KPIs, regular reporting, and performance benchmarks. For example, businesses could adopt ISO 9001 standards for quality management to demonstrate credibility and operational excellence.
- **Scalability:** Efficient management supports horizontal and vertical growth. By freeing resources from repetitive tasks, businesses can focus on geographic expansion, diversification of product offerings, and new market development. Case studies of successful scalable businesses show that streamlining operations can reduce operational costs by up to 20%, allowing reinvestment in growth.

Management Global Examples: Streamlining Operations for Investment Readiness

Example 1: Driptech (India and Africa)

Driptech, a company specializing in affordable drip irrigation systems for smallholder farmers, streamlined its manufacturing and distribution processes through automation and data-driven inventory management. By adopting digital tools, the company reduced production costs, scaled operations to multiple countries, and became an attractive investment opportunity. This approach allowed Driptech to secure funding from Acumen and Khosla Ventures.

Example 2: Twiga Foods (Kenya)

Twiga Foods, an agricultural tech company, automated its supply chain processes by integrating mobile-based inventory and sales tracking systems. This allowed it to improve efficiency, reduce food waste, and provide transparent data to investors. Twiga Foods' streamlined operations helped it secure \$30 million in funding from Goldman Sachs and other investors, facilitating its expansion into new markets.

4.2. Engagement: Building Relationships with Communities and Stakeholders

Engagement is the lifeline of climate-resilient businesses. It ensures that businesses remain relevant to their stakeholders, adapt to changing needs, and create a lasting impact. The focus is on fostering trust and collaboration with consumers, donors, cooperatives, and local communities.

Strategies for Effective Engagement:

- **Stakeholder Mapping:** Identify and categorize key stakeholders such as farmers, donors, cooperatives, and community members. Understanding their roles, needs, and expectations helps businesses align their offerings accordingly.
- **Continuous Feedback Mechanisms:** Establishing structured communication channels like surveys, town halls, and feedback platforms ensures businesses remain attuned to community needs. For example, engaging with farmers through co-designed workshops can reveal opportunities for product customization and service improvement.
- **Building a Climate-Focused Brand:** Branding plays a pivotal role in engagement. Businesses should position themselves as leaders in addressing climate challenges, such as water scarcity or waste management. A strong brand built around sustainability attracts environmentally conscious consumers, investors, and partners.
- **Collaboration with Local Stakeholders:** Partnering with local organizations, municipalities, and advocacy groups can enhance trust and accessibility. Businesses that actively involve communities in their initiatives—such as waste recycling or water optimization—are more likely to succeed.
- **Adopting a Pull Strategy:** Instead of pushing products and services, businesses can create demand by highlighting their alignment with climate action. Marketing campaigns that resonate with stakeholder values, such as sustainable agriculture or energy efficiency, naturally draw attention and support.

Engagement Global Examples: Building Relationships with Communities and Stakeholders

Example 1: Patagonia (United States)

Patagonia, an outdoor apparel company, has built a strong brand around environmental sustainability by engaging directly with its community of consumers and activists. Through campaigns like “Don’t Buy This Jacket,” Patagonia encourages customers to repair rather than replace products, aligning with its values. This engagement has not only deepened customer loyalty but also enhanced its reputation as a climate-conscious brand.

Example 2: Cropin (India)

Cropin, an agri-tech company, engages with farmers, cooperatives, and agribusinesses to offer AI-powered solutions for crop management. By conducting regular workshops and providing real-time data through its digital platform, Cropin ensures farmers adopt sustainable practices. This engagement has improved farm productivity, built trust among stakeholders, and expanded Cropin’s user base to over 50 countries.

4.3. Sustainability: Achieving Environmental and Financial Stability

Sustainability is the cornerstone of climate-resilient businesses. It ensures that operations contribute positively to the environment while maintaining financial stability through diversification and growth.

Strategies for Environmental Sustainability:

- **Resource Optimization:** Efficient use of water, energy, and raw materials is fundamental. Technologies such as precision irrigation systems can reduce water consumption by up to 50%, directly benefiting farmers and aligning with environmental goals.
- **Circular Economy Models:** Businesses can adopt practices that minimize waste and promote recycling. For instance, carton recycling businesses can collaborate with local councils to establish collection points, reducing waste while generating revenue.
- **Market Diversification:** Expanding to new geographic areas and targeting different market segments reduces dependency on a single revenue source. For example, introducing climate-smart products to urban markets while maintaining rural outreach ensures balanced growth.
- **Product Development and Innovation:** Continuous investment in R&D enables businesses to introduce products that address emerging climate challenges. For instance, developing bio-degradable packaging materials or smart water monitoring devices can meet growing market demands for sustainability.
- **Sustainability Metrics:** Establishing measurable environmental impact indicators—such as reductions in carbon emissions, waste generation, or water usage—allows businesses to track progress and showcase achievements to investors and communities.

| Sustainability: | Achieving | Environmental | and | Financial | Stability |
|---|-----------|---------------|-----|-----------|-----------|
| Example 1: Veolia (Global) | | | | | |
| Veolia, a multinational utility company, focuses on providing solutions for water, waste, and energy management. Through initiatives like the "circular economy" approach, Veolia transforms waste into resources, such as converting biowaste into energy. This dual focus on environmental sustainability and resource optimization has allowed Veolia to remain profitable and expand globally. | | | | | |
| Example 2: Interface (United States) | | | | | |
| Interface, a global flooring manufacturer, adopted sustainability practices by introducing recycled materials into its production processes. Its "Mission Zero" initiative aims to eliminate its environmental impact by 2025. This commitment to sustainability has increased customer trust and allowed Interface to differentiate itself in the competitive flooring market. | | | | | |
| Example 3: M-KOPA (Kenya, Uganda, Tanzania) | | | | | |
| M-KOPA provides solar power systems to underserved communities using a pay-as-you-go financing model. By diversifying its product offerings (e.g., solar water pumps, energy-efficient appliances) and expanding geographically, M-KOPA has achieved financial stability while promoting environmental sustainability. The company's innovative approach has attracted over \$200 million in investments. | | | | | |

5. Framework Applications for the Target Companies

5.1 Applying the Strategic Framework to Paperpal

Paperpal can serve as a prime example of how the Management, Engagement, and Sustainability framework can drive operational efficiency, stakeholder engagement, and environmental resilience, ensuring the company’s growth and alignment with its climate-focused mission.

5.1.1 Management: Streamlining Operations for Investment Readiness

| | |
|---|-----------------|
| Operational | Efficiency |
| Paperpal should implement inventory systems and point-of-sale (POS) tools to document its operations thoroughly. These systems streamline repetitive tasks such as sales tracking and stock management, reducing manual errors and saving valuable time and resources. Automated workflows enable the company to focus on strategic priorities like product and business development. By freeing up operational capacity, Paperpal can also enhance its ability to scale vertically and horizontally. | |
| Data-Driven | Decision-Making |
| Implementing automated systems allows Paperpal to generate reliable, measurable data about its operations. Metrics such as sales performance, inventory turnover, and distribution timelines | |

provide a comprehensive view of the company’s efficiency. This data is essential not only for internal decision-making but also for showcasing operational transparency to investors. With access to detailed, actionable insights, Paperpal positions itself as an attractive investment opportunity, demonstrating accountability and preparedness for growth.

Scalability

Streamlined operations and data systems provide the foundation for Paperpal’s geographical and product expansion. By reducing operational friction, the company can redirect resources to explore new markets and diversify its product offerings, ensuring scalability with minimal disruption.

5.1.2. Engagement: Building Relationships Through Branding

| | |
|---|----------|
| Climate-Focused | Branding |
| To strengthen engagement, Paperpal should transition from white-label operations to building its own brand identity centered on climate resilience. A strong, recognizable brand that highlights sustainability aligns with its mission and attracts environmentally conscious customers, and other customers that are not necessarily conscious to the environment issue due to the competitive price of Paperpal products. This branding approach positions Paperpal as a leader in climate-friendly solutions, enhancing its appeal to consumers, distributors, and investors alike. | |

| | | | | |
|--|------------|-----|------|----------|
| Stakeholder | Engagement | and | Pull | Strategy |
| A strong brand creates a pull strategy that draws attention from distributors motivated by customer demand for sustainable products. By marketing its climate-focused brand directly to consumers, Paperpal can indirectly encourage distributors to stock its products, thus driving sales and expanding its distribution network efficiently. This engagement strategy fosters business development, strengthens client relationships, and facilitates long-term growth. | | | | |

5.1.3. Sustainability: Diversification and Expansion

| | |
|---|-----------------|
| Product | Diversification |
| Once Paperpal’s brand identity and back-end operations are established, the company can focus on diversifying its product line. New products under the same climate-focused brand will allow Paperpal to meet broader consumer needs, reduce dependency on a single product, and enhance revenue stability. This strategy not only supports financial sustainability but also aligns with its mission of addressing climate challenges. | |

| | |
|--|-----------|
| Geographical | Expansion |
| Paperpal’s past success in selling products in Jordan highlights the potential for geographical diversification. Despite logistical challenges, such as prolonged border delays during the war, this market represents a promising avenue for growth. Addressing these barriers through improved distribution planning and partnerships with local distributors will enable Paperpal to expand its reach. By building relationships with retailers and distributors in neighboring markets, Paperpal can establish a robust export strategy that ensures sustainable growth. | |

| | |
|--|--------|
| Environmental | Impact |
| Through consistent branding and expanded operations, Paperpal contributes to environmental sustainability by promoting climate-friendly products. The diversification of its offerings further | |

enhances its ability to address key environmental challenges, such as waste reduction and resource optimization, while maintaining its financial and operational resilience.

5.2 Strategic Framework for Purix: Management, Engagement, and Sustainability

Purix's sustainability-focused approach to recycling carton waste into eco-friendly packaging demonstrates the company's potential for growth and scalability. However, addressing its operational challenges, enhancing stakeholder engagement, and embedding sustainability at its core are crucial for optimizing its operations and expanding its market presence.

5.2.1. Management: Streamlining Operations for Investment Readiness

Operational

Efficiency

Purix's current production bottleneck is the drying process, which relies on sunlight and natural heat. This limitation reduces productivity during winter, delaying over 50% of production. To address this, Purix can invest in a solar energy-powered dryer that operates in a closed environment, streamlining the drying process while maintaining its sustainability ethos. This solution would eliminate seasonal productivity drops and ensure year-round operational efficiency. Though more expensive in operating expenses, a gas-powered dryer could also be considered as a backup solution for critical periods.

Data-Driven

Decision-Making

Integrating computerized systems for production tracking and inventory management can help Purix generate reliable data to monitor efficiency and identify operational bottlenecks. Such systems would also provide transparent metrics for investors, demonstrating the company's capacity to scale effectively and sustainably. For example, tracking water reuse efficiency and energy savings can showcase Purix's alignment with climate-focused goals while highlighting areas for improvement.

5.2.2. Engagement: Building Relationships Through Branding and Partnerships

Climate-Focused

Branding

Currently, Purix's packaging design is basic, limiting its appeal to broader market segments. By investing in modern, colorful, and branded packaging, Purix can build a recognizable identity aligned with its sustainability mission. A strong brand that emphasizes affordability, eco-friendliness, and local employment will attract environmentally conscious consumers and strengthen the company's market presence.

Stakeholder

Engagement

and

Pull

Strategy

Engagement efforts should focus on strengthening relationships with existing distributors and expanding partnerships with new ones. By marketing the brand directly to end consumers, Purix can create a pull strategy where customer demand drives distributor interest in its products. Additionally, engaging with local communities to establish waste collection centers closer to Beit Dakko will reduce logistical costs and emissions, further solidifying Purix's sustainability commitment.

Community-Centric

Approach

Purix already contributes to local employment, particularly for women in Beit Dakko. Expanding these efforts to include more community members in adjacent areas can reinforce the company's role as a local change-maker. Engaging local stakeholders in its recycling initiatives not only strengthens community ties but also enhances the supply chain's efficiency and reliability.

5.2.3. Sustainability: Diversifying Products and Expanding Geographically

Product

Diversification

Purix's current focus on egg cartons and basic packaging provides a strong foundation, but diversifying its product line can open new revenue streams. For example, creating eco-friendly packaging for other sectors, such as agriculture or retail, could broaden its market appeal. These products could leverage the same sustainability-driven processes, strengthening Purix's brand as a provider of versatile, environmentally friendly solutions.

Geographical

Expansion

With the concept already proven successful, Purix has significant opportunities for geographical expansion. Neighboring markets such as Jordan offer a natural starting point, as demand for cost-effective and eco-friendly products continues to rise. However, Purix must address logistical challenges, such as delays at borders and transportation inefficiencies, to ensure cost-effective and reliable operations.

Environmental

Impact

Purix's commitment to sustainability is evident in its efficient recycling processes, which reuse water and minimize energy consumption. However, nearly 20% of the water used becomes polluted, requiring additional treatment. Investing in water treatment technology or partnerships with environmental organizations can help address this issue, further enhancing Purix's environmental credentials. By optimizing resource use and reducing waste, Purix can maintain its environmental stewardship while scaling operations.

5.3 Strategic Framework for Snipe: Management, Engagement, and Sustainability

Snipe, as an agricultural technology pioneer, has the potential to transform water and fertilizer usage in the Palestinian agricultural sector. Applying the Management, Engagement, and Sustainability framework will address its operational and financial challenges, while preparing the company for scalability and long-term growth.

5.3.1. Management: Streamlining Operations for Investment Readiness

Operational

Efficiency

Snipe's reliance on technical experts for product installation increases costs and limits scalability. To address this, Snipe should develop a modular operations model with clearly documented and transferable installation processes. Training local technicians and providing detailed installation manuals or video guides can decentralize the installation process, making it scalable across geographical regions. By streamlining installment operations, Snipe can lower costs for farmers and position itself for expansion into neighboring markets.

Data-Driven

Currently, Snipe's data collection is limited to Palestine, which restricts its ability to analyze trends for broader market applications. Expanding its data collection through soil sensors to other regions by collaborating with cooperatives or farmer groups will provide valuable insights into market needs, enabling Snipe to refine its products and adapt to diverse farming practices. This data will also enhance Snipe's appeal to investors by showcasing the scalability and effectiveness of its solutions.

Scalability

Streamlined hiring processes and a modular operations model will allow Snipe to expand beyond Palestine into untapped markets such as Jordan and the Arab world, where demand for agricultural automation is growing. Partnerships with agricultural cooperatives and local organizations can facilitate entry into these markets, while donor-funded pilots can be used to showcase the benefits of Snipe's technology to potential buyers.

Decision-Making

5.3.2. Engagement: Building Relationships Through Branding and Partnerships

Climate-Focused

Snipe's focus on optimizing water and fertilizer use aligns with global sustainability goals. Developing a brand identity that highlights its impact on water conservation and sustainable farming will resonate with environmentally conscious stakeholders. A strong brand can also attract potential customers, investors, and partners who prioritize sustainable agriculture. This would require investing in marketing efforts online and offline, raising awareness through partnerships and additional channels would grow brand awareness.

Branding

Community-Centric

Engagement should include educational efforts to showcase the cost savings and productivity improvements achieved through Snipe's solutions. Hosting workshops, webinars, or field demonstrations for farmers can address knowledge gaps and increase adoption rates. Furthermore, Snipe should collaborate with financial institutions to explore micro-loan or installment-based payment systems that make its products more accessible to farmers with limited financial capacity.

Approach

5.3.3. Sustainability: Diversifying Products and Expanding Geographically

Product

Snipe can leverage its in-house expertise to expand its product line. For instance, introducing modular or entry-level versions of its fertigation systems could lower initial costs for farmers, targeting small farmers or even households gardens. Additionally, integrating soil and water sensors, as recommended during the pilot, enhances the value of its systems, providing farmers with comprehensive data for optimizing their farming practices.

Diversification

Geographical


Snipe's technology has significant potential in neighboring markets such as Jordan and other Arab countries, where water scarcity drives demand for agricultural automation. By addressing its current reliance on expert installations, Snipe can scale into these regions more efficiently.

Expansion


Partnerships with cooperatives, local agricultural organizations, and donors can facilitate this expansion while reducing logistical and operational barriers.

Annex I | Palestinian Green Successes




The table underneath portrays a snapshot of the past and present environmental justice initiatives in Palestine, outlining the economic and social developments that these institutions achieved.

| 1. Enablers | Sector | Relevant Information |
|--|--------|---|
| <p>Palestine Monetary Authority</p>  <p>سلطة النقد الفلسطينية PALESTINE MONETARY AUTHORITY</p> | Public | <p>Green Initiatives: In collaboration with local and regional financial institutions, Palestine Monetary Authority has initiated a number of projects that intersect with green practices and projects, partnering with most banks operating in Palestine.</p> <ul style="list-style-type: none"> - Istidama: \$300m zero-interest fund focusing on financing women-led projects. - Istidama+: \$133m zero-interest fund focusing on financing healthcare, agricultural, and renewable energy projects. - Munsha'aty: Providing business owners with free training and consultations.⁴⁴ |

⁴⁴ Monshati. (n.a.). Homepage. monshati.ps/en

| | | |
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| <p>The Swedish International Development Agency</p>  | <p>International Development</p> | <p>Sida has helped form the ECJP program of which this report is an extension of. ECJP is a \$6 million project funded by Sida and WE Effect to be implemented by the Agricultural Institutions Coalition in Palestine, existing of:</p> <ul style="list-style-type: none"> a) Ma'an Development Center b) The Applied Research Institute – Jerusalem (ARIJ) c) Union of Agricultural Work Committees d) Agricultural Development Association e) Palestinian Hydrology Group <p>The organisations' line of interventions lies in natural resources management, agriculture, environment, water, human capacity building, and community development.⁴⁵</p> <p>Palpro (SEC), and Eco-Peace,</p> |
| <p>The Italian Agency for Development Cooperation Jerusalem</p>  | <p>International Development</p> | <p>Green Initiatives: The Italian Agency for Development Cooperation Jerusalem (AICS) has been a long-standing partner in supporting Palestine's energy sector. Their involvement began in 2000 with the €33.5 million Electricity Sector Investment Management Project, which led to the development of the Electricity Utility Management Program. This program focused on upgrading grid infrastructure and enhancing efficiency through key substation improvements. Since 2015, AICS has invested over €21 million in Palestine's energy initiatives, including the €2 million EPEC program, which helps over 10,000 micro, small, and medium enterprises adopt renewable energy to reduce costs and increase productivity. Additionally, the AICS-backed NUR Project in Bethlehem advances solar energy use by offering training and supporting startups, underscoring AICS's</p> |




⁴⁵ ECJP. (n.a.). About PAIC. paic.ps/en/Article/1/about-paic

| | | commitment to sustainable energy growth in Palestine. ⁴⁶ |
|---|----------------------------------|---|
| The French Development Agency  | International Development | The French Development Agency (AFD) has played a critical role in driving sustainable energy initiatives. In recent years, AFD launched the \$90 million SUNREF program, facilitated through partnerships with the Bank of Palestine and Cairo-Amman Bank. ⁴⁷ |
| 2. CSR Arms & Financing | | |
| Sector | Relevant Information | |
| Paltel Group  | Telecoms | Green Initiatives: Paltel has had a project which donated solar panels to a total of 48 organisations, including orphanages, municipalities, health associations, and women associations. This solar infrastructure enabled beneficiaries to generate clean energy, resulting in electricity savings of over \$180,000 annually—reaching 49% of costs—allowing them to allocate these funds to other critical needs. ⁴⁸ |
| Bank of Palestine  | Banking | Green Initiatives <ul style="list-style-type: none"> - Between 2013 and 2021, over \$17m in green loans were disbursed to a total of 280 recipients. - The bank made impactful sustainability changes by switching to energy-efficient LED lighting, which cut electricity use. - Advanced building control systems further reduced energy consumption by up to 50%, while modern HVAC systems improved energy efficiency by 40–50%. - An eco-friendly upgrade to fire systems and the addition of water-saving fixtures helped reduce environmental impact. |

⁴⁶ This Week in Palestine. (2021). Supporting Environmental Sustainability in Palestine. tinyurl.com/uhdkjeed

⁴⁷ Proparco. (2022). Launching SUNREF II Palestine program to support energy efficiency projects. tinyurl.com/2s3k48n9

⁴⁸ Paltel. (2022). Palter Group CSR. This Week in Palestine. thisweekinpalestine.com/wp-content/uploads/2022/01/001.pdf

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| | | - A paper-saving initiative in 2021 saved 1.5 million sheets by promoting digital solutions and monitoring usage. ⁴⁹ |
| Cairo Amman Bank  بنك القاهرة عمان CairoAmmanBank | Banking | Green Initiatives: In collaboration with EBRD, the EU, and Green Economy Financing Facility, the bank offers green loans with incentives such as cashback in case of meeting criteria, focusing on: <ul style="list-style-type: none"> - Environmentally friendly cars - Environmentally friendly machinery and equipment - Environmentally friendly projects⁵⁰ |
| The National Bank  | Banking | Green Initiatives: The National Bank has an annual quota offering zero-interest loans for green projects, enhancing opportunities for investment, and granting access within the renewable sector. ⁵¹ |
| 3. Technology Startups | Sector | Relevant Information |
| Flowless  | Agri-Tech | Product: Water management Location: Ramalah, Operation: West Bank Green Initiatives: The company provides an automated, AI-supported water loss management system that monitors and analyses water in farms and municipalities, resulting in optimised operational efficiency and reduction in costs. ⁵² |
| Greeners | Agri-Tech | Product: Fertilisation |

⁴⁹ Bank of Palestine, (2022). Sustainability Report 2021. tinyurl.com/5bdabc49



⁵⁰ Cairo Amman Bank. (n.a.). Environmentally Friendly Products. cab.jo/for-me/loans/environmentally-friendly-products

⁵¹ Interview with the Bank (October, 2024).

⁵² Flowless. (n.a). Homepage. flowless.co

|  | | <p>Location: Jenin, Operation: West Bank</p> <p>Green Initiatives: The company provides an environmentally-friendly liquid fertilisation solution that helps plants grow faster, more resilient, and has no direct harms for humans or the soil.</p> |
|--|--------------------------------|--|
| <p>Snipe</p>  | <p>Agri-Tech</p> | <p>Product: Fertilisation & irrigation</p> <p>Location: Ramallah, Operation: West Bank</p> <p>Green Initiatives: Snipe is a hardware and a software that connects to irrigation systems in farms to perform a completely automated “fertigation”, controlled by the software and operated through their locally assembled hardware (computerised controller). Optimising the amounts of water and fertilisers, Snipe enables farmers to process these 2 operations simultaneously without doing the manual work.</p> |
| 4. Service Providers | Sector | Relevant Information |
| <p>Massader – a subsidiary of Palestine Investment Fund</p>  | <p>Renewable Energy</p> | <p>Location: Ramallah, Operation: West Bank, Gaza Strip</p> <p>Type: Infrastructure & Renewable Energy</p> <p>Info: Is a \$2b fund composed of public, private & international actors.</p> <p>Green Initiatives</p> <ul style="list-style-type: none"> - In 2018, the Palestine Investment Fund furthered these efforts by signing a \$20 million loan agreement with the Arab Bank to finance the construction of three solar parks in Palestine.⁵³ - This was followed in 2019 by an \$18 million loan from the European Investment Bank, in |

⁵³ Massader. (2018). PIF and Arab Bank Sign \$20 Million Solar Power Financing Agreement. massader.ps/en/news/1522831590

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| | | <p>partnership with Palestine Investment Fund, to fund rooftop solar installations across 500 public schools in the West Bank.⁵⁴</p> <ul style="list-style-type: none"> - The company managed to establish 3 solar power parks in Jericho, Jenin, and Ramallah. - Other than that, the company had a project to develop the West Bank Oil Field at a cost of \$390m.⁵⁵ |
| <p>Green Palestine</p>  | <p>Renewable Energy</p> | <p>Location: Bethlehem, Operation: West Bank</p> <p>Green Initiatives: The company has 3 lines of work:</p> <ul style="list-style-type: none"> a) Solid waste management b) Wastewater treatment c) Solar panel instalment⁵⁶ |
| <p>Qudra Renewable Energy Solutions</p>  | <p>Renewable Energy</p> | <p>Location: Ramallah, Operation: West Bank & Gaza Strip</p> <p>Green Initiatives: In 2020, NAPCO and Bank of Palestine Group launched Qudra, a renewable energy company that focuses on rooftop and ground mount solar energy solutions in the West Bank and the Gaza Strip. Qudra handles the financing with an innovative approach, where installation, and maintenance, and clients, public and private, only pay for the electricity they save. Until this moment, Qudra has invested over \$20m in solar energy projects.⁵⁷</p> |
| <p>3k Energy Solutions</p> | <p>Renewable Energy</p> | <p>Location: Ramallah, Operation: West Bank</p> <p>Green Initiatives: The company provides design, integration, permitting, installation and warranty</p> |

⁵⁴ Massader. (2019). School rooftops will generate solar energy for 16000 houses in the West Bank. massader.ps/en/news/1552816080

⁵⁵ Massader. (n.a.). Homepage. massader.ps; Massader. (2024). Noor Palestine Solar Program Key Developmental Indicators. LinkedIn. linkedin.com/feed/update/urn:li:activity:7253399256693141504/

⁵⁶ Green Palestine. (n.a.). Homepage. greenpalestine.ps

⁵⁷ Qudra. (n.a.). Projects. qudra.ps/projects/; Qudra. (n.a.). Sunrise over Palestine's future. qudra.ps/sunrise-over-palestines-future/

|  | | <p>services for solar panels in Palestine.</p> |
|--|--------------------------------|--|
| <p>Sunergy For Renewable Energy Solutions</p>  | <p>Renewable Energy</p> | <p>Location: Ramallah, Operation: West Bank</p> <p>Green Initiatives: The company imports and provides installation services for on-grid and off-grid solar power devices and panels, suitable for both individuals and businesses.⁵⁸</p> |
| <p>Ecotech Recycling</p> | <p>Recycling</p> | <p>Location: Bethlehem, Operation: West Bank</p> <p>Green Initiatives: Electronic recycling; wires, phones, computers, etc.⁵⁹</p> |
| <p>Ommar Alard</p>  | <p>Recycling</p> | <p>Location: Ramallah, Operation: Ramallah & el Bireh.</p> <p>Green Initiatives: Works with schools, banks, municipalities to recycle papers, plastics, metals, and electronics.</p> |
| 5. Agribusinesses | Sector | Relevant Information |
| <p>Nakheel Palestine</p>  | <p>Agriculture</p> | <p>Size: 71 full time, 200 seasonal</p> <p>Location: Jericho, Operation: West Bank & international markets</p> <p>Certification: ISO 22000, GlobalGAP, and FSSC2200</p> <p>Green Initiatives: The MED-TEST II project identified four major energy saving projects that</p> |

⁵⁸ Synergy. (n.a.). Homepage. sunergy.ps

⁵⁹ Ecotech Recycling. (n.a.). Instagram Page. [instagram.com/ecotech.recycling](https://www.instagram.com/ecotech.recycling)

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| | | will generate a total savings of €27,855, with an investment of €39,600. ⁶⁰ |
| Jannati Herbs  | Food Preservation | <p>Size: 6 full time</p> <p>Location: Ramallah, Operation: Ramallah & Al Bireh Governorate</p> <p>Green Initiatives: Jannati is a food production company that processes local natural inputs without the use of artificial preservatives, to produce pastes of different types, including pesto, garlic, ginger, and chilli pastes, using local farmer's fresh produce to turn them into shelf products. In 2023, Jannati secured capital to fund its biogas digester initiative that turns organic waste into cooking gasoline and fertilisers.⁶¹</p> |
| Zadona Food  | Food Preservation | <p>Product: Pickled and canned vegetables</p> <p>Size: 51-200 employees</p> <p>Location: Tubas, Operation: West Bank, Exports abroad</p> <p>Certification: ISO 22000 Certificate</p> <p>Green Initiatives:</p> <ul style="list-style-type: none"> - Recycling in collaboration with the Palestinian Museum - Supporting Palestinian farmers in the Jordan Valley by using the surplus of their agricultural products such as cucumber, olives, pepper and eggplants to produce pickles.⁶² |
| Siniora Food | Food Processing | <p>Size: 220 employees</p> <p>Location: Jerusalem (HQ), Jordan, UAE Operation:</p> |

⁶⁰ UNIDO. (2020). *MED TEST II Case Study / Nakheel Palestine*. Green Industry Platform.

greenindustryplatform.org/sites/default/files/Nakheel-Palestine_EN.pdf

⁶¹ Interview with the company (January, 2023); Jannati. (n.a.). Facebook Page. facebook.com/JannatiHerbs/

⁶² Sinokrot Holding. (n.d). *Zadona*. sinokrotholding.com/company/zadona

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|  | | <p>West Bank, Gaza Strip, and 14 regional countries</p> <p>Certification: FSSC22000, ISO 22000, ISO 9001, ISO 14001, OHSAS 18001</p> <p>Green Initiatives: Identified energy efficiency processes found that an investment of €70,000 has an annual saving of over €100,000 on water (-27%), energy (-16%), and waste (8%) through insulation and cooling adjustment, installing LED lighting, introducing new water efficient techniques, and introducing multi-use containers for the transportation processes.⁶³</p> |
| <p>Alhijaz Chocolate Company</p>  | <p>Food Manufacturing</p> | <p>Product: Moulded chocolate, coated nuts & medjoul</p> <p>Size: 60 full-time, 150 seasonal</p> <p>Revenue: \$2m per year</p> <p>Location: Toulkarm, Operation: West Bank</p> <p>Certification: ISO 22000, FSSC 22000</p> <p>Green Initiatives: Over 30 energy reduction measures were identified, including energy efficiency adjustments, water-saving processes in mould cleaning, and material loss reduction through better housekeeping, with a total annual savings of €92,370 on energy (-27%), water (-45%), and raw materials (-3%) on an estimated investment of €73,400.⁶⁴</p> |

⁶³ UNIDO. (2020). MED TEST II Case Study | Siniora. Palast. palast.ps/sites/default/files/inline-files/Siniora_0.pdf

⁶⁴ UNIDO. (2020). MED TEST II Case Study | Al Hijaz Chocolate Company. Green Industry Platform. greenindustryplatform.org/sites/default/files/AlHijaz.EN_.pdf


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| <p>Sinokrot Chocolate and Confectioneries – A subsidiary of Sinokrot Holding</p>  | <p>Food Manufacturing</p> | <p>Product: Chocolate wafers</p> <p>Size: 250 employees, Revenues: approx. \$10.5m annually</p> <p>Location: Ramallah, Operation: West Bank, Gaza Strip, regional & international markets</p> <p>Certification: ISO9000, GLOBALG.A.P, BRC, Field to Fork, SEDEX, and FSSC22000</p> <p>Green Initiatives: Through a modification of the product formulation, improved operational control and the installation of a new creamer section, the company not only achieved a better quality of their wafers, but also an increase in the productivity, while reducing rejects by 10% at packaging stage with an annual raw material savings worth €28,000. Furthermore, several energy efficiency measures led to a reduction of the total gas consumption at boilers and ovens in the range of 60%.⁶⁵</p> |
| <p>Al Jebrini</p>  | <p>Food and Beverages</p> | <p>Product: Dairy products</p> <p>Size: 310 employees</p> <p>Location: Hebron, Operation: West Bank, Regionally</p> <p>Certification: ISO 22000, PS Standards</p> <p>Green Initiatives: The MED TEST II project achieved annual savings in energy and water use with a payback period of 1.2 years. Through operational improvements like modernising equipment and adopting efficient housekeeping practices, energy consumption dropped by 10%. Enhanced Cleaning-in-Place procedures led to a 35% reduction in water use, including a significant recovery of water for reuse, saving approximately 35% of total water consumption annually. These</p> |

⁶⁵ UNIDO. (2020). MED TEST II Case Study | Sinokrot Chocolate and Confectioneries. greenindustryplatform.org/sites/default/files/Sinokrot-Chocolate-and-Confectioneries_EN.pdf

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| | | efforts improved sustainability and optimised resource efficiency across production. ⁶⁶ |
| <p>Al-Rawafed (AlZahra)</p>  | <p>Food and Beverages</p> | <p>Product: Juices, food powders, flavours, colours, vinegars, natural oils and extracts</p> <p>Size: 85 employees</p> <p>Location: Nablus, Operation: West Bank, Israel</p> <p>Green Practices: One of the measures they identified was the automation of their concentrated syrup line, saving the company €90,000 annually while costing approximately €63,000 to implement. This measure would save 414 m3 of water and 58 MWh of energy annually.⁶⁷</p> |
| <p>National Beverage Company</p>  | <p>Beverages</p> | <p>Product: Carbonated soft drinks, mineral water and juices</p> <p>Location: Ramallah, Jericho, Tulkarm, and Gaza, Operation: West Bank</p> <p>Certification: FSSC 22000:2013, ISO 9001:2015, ISO: 14001:2015, ISO 45001:2018, Palestine Standards Certificate</p> <p>Green Initiatives</p> <ul style="list-style-type: none"> - Solar power production of 3,000 MW/h per year. - The installation of two water treatment units that take advantage of excess industrial water for |

⁶⁶ UNIDO. (2020). MED TEST II Case Study | Al Jebrini Group. Green Industry Platform. Green Industry Platform. greenindustryplatform.org/sites/default/files/Al-Jebrini-Group-for-Dairy-and-Food-Industries_EN.pdf



⁶⁷ UNIDO. (2024). MED TEST III in Palestine | Progressing resource-efficient and competitive industries. Switchmed. switchmed.eu/wp-content/uploads/2024/01/Palestine-MED-TEST-III_National-Publication_EN.pdf

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| | | agricultural usage. ⁶⁸ |
| Haifa Food | Beverages | <p>Size: 15 employees</p> <p>Location: Hebron, Operation: West Bank, Israel</p> <p>Green Initiatives: Investment of nearly €47,000 to achieve annual savings of €43,000 through:</p> <ul style="list-style-type: none"> - Investing in a different machinery that is energy efficient and has higher production rates. - Enhanced product stability to cut waste and returns, boosting productivity. - Reduced cleaning cycles to save water and energy. - Pallet tracking to reduce loss and lower new pallet purchases by 20 tonnes per year.⁶⁹ |
| <p>Old City Coffee and Distribution – Izhiman Coffee subsidiary</p>  | Coffee | <p>Product: Coffee, spices & nuts</p> <p>Size: 20 employees</p> <p>Location: Ramallah, Operational: West Bank</p> <p>Green Initiatives: Investment of nearly €1,500 to achieve annual savings of €4,500 through:</p> <ul style="list-style-type: none"> - Reducing non-essential power use - Maintenance of production lines - Enhanced ventilation systems⁷⁰ |
| 6. Paper and Plastic Companies | Sector | Relevant Information |
| Green Carton (Purix) | Paper | <p>Location: Jerusalem, Operation: Israel</p> <p>Green Initiatives</p> |

⁶⁸ NBC. (n.a.). Social Responsibility. nbc-pal.ps/CSR

⁶⁹ UNIDO. (2020). MED TEST II Case Study | Haifa Food Company. Palast. palast.ps/sites/default/files/inline-files/Haifa_Food_0.pdf

⁷⁰ UNIDO. (2020). MED TEST II Case Study | Old City Coffee and Distribution. greenindustryplatform.org/sites/default/files/Old-City-Coffee-and-Distribution_EN.pdf


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|  | | <ul style="list-style-type: none"> - Collection of carton waste from cartons manufacturing companies, from companies that only compress carton waste. - Transforming waste into egg cartons by reusing water in the process of kneading cardboard and paper more than once and over month round. - Eco-friendly drying – dishes are dried by exposing them to sunlight and natural heat.⁷¹ |
| Paperpal | Paper | <p>Product: Industrial and household paper products</p> <p>Location: Jericho, Operation: Israel</p> <p>Certification: ISO 9001</p> <p>Green Initiatives: Every date palm produces 15-30 kg of waste annually,⁷² and paper and carton waste contributes to around 15% of overall waste in Palestine,⁷³ hence the company had the initiative of collecting carton and paper waste from schools and other sources, in addition to grounded palm fronds from date farms, producing paper towels for toilets and kitchens priced around 50% less than its regular counterpart.⁷⁴</p> |
| <p>Al-Wafa Industries</p> <p>Plastic</p>  | <p>Plastic</p> | <p>Product: Packaging solutions for several products — plastic containers, caps and gallons</p> <p>Size: 250 employees</p> <p>Location: Hebron, Operation: West Bank and abroad</p> <p>Certification: ISO 22000, ISO 9001, and ISO 14001</p> <p>Green Initiatives</p> |

⁷¹ Interview with the company (September, 2022)

⁷² Faiad A, Alsmari M, Ahmed MMZ, Bouazizi ML, Alzahrani B, Alrobei H. (2022). Date Palm Tree Waste Recycling: Treatment and Processing for Potential Engineering Applications. *Sustainability* 14(3):1134. doi.org/10.3390/su14031134

⁷³ Heinrich-Böll-Stiftung. (2020). Palestine: Solid waste management under occupation. ps.boell.org/en/2020/10/07/palestine-solid-waste-management-under-occupation

⁷⁴ Interview with the company (2022, October).

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| | | <ul style="list-style-type: none"> - Installing a 600-kilowatts on-grid solar system - Working on developing production lines by using Injection-Compression Molding technique which reduces product weight by up to (30%) while maintaining the same quality and durability. - The raw material used in production can also be recycled for later use. Materials are crushed and turned into small plastic granules, then are reused in manufacturing packaging products for various non-food purposes. - The company established an environmentally friendly green garden with an area of 3,000 square metres. It includes many trees and plants; to reduce carbon emissions and preserve biodiversity in the vicinity of the company. - The company was able to get ISO 14001 certificate in Environmental Management System (EMS) after implementing the resources-efficiency measures |
| Royal Industrial Trading  | Plastic | <p>Product: Sanitary products, furniture, decoration, fireplaces</p> <p>Size: Around 700 full time employees</p> <p>Certification: ISO 50001, ISO 14001, ISO 9001</p> <p>Location: Hebron, Operation: West Bank, regionally and internationally</p> <p>Green Initiatives</p> <ul style="list-style-type: none"> - Installed Solar PV Capacity ~ 1000 kWp - Annual Produced Clean Energy ~ 1650 MWh - Saved Energy from Energy Efficiency ~ 500 MWh - Annual CO2 emissions reduction ~ 1500 ton of CO2 equivalent |

Annex II | Global Case Studies on Management, Engagement, and Sustainability for Climate Resilience

Case Study: Pineapple Fabrics⁷⁵

Established in 2013, Piñatex exemplifies circular economy principles by transforming agricultural waste—specifically pineapple leaves—into a versatile material. This approach addresses waste management issues in pineapple-producing regions while providing a sustainable resource for various applications.

The company's recent installation of an automated decorticating machine in the Philippines has significantly enhanced production capacity. This development assures international clients of Ananas Anam's ability to service large-scale orders, positioning Piñatex as a viable alternative to traditional leather.

Social Impact

Ananas Anam's operations are grounded in Fair Trade principles, ensuring equitable financial benefits for local farming communities. Farmers in the Philippines earn approximately €2 per square metre of Piñatex material, creating valuable job opportunities and fostering social cohesion in rural areas. The continuous collaboration with these communities, coupled with partnerships in other pineapple-producing countries such as Costa Rica and Indonesia, demonstrates the global scalability of this model.

Environmental Benefits

Piñatex production aligns with Ananas Anam's commitment to sustainability:

- **Waste Reduction:** By repurposing pineapple leaves—a byproduct of pineapple agriculture—the company minimises agricultural waste, addressing a critical environmental challenge.
- **Natural Materials:** The reliance on natural fibres reduces the environmental footprint typically associated with synthetic materials and conventional leather production.
- **Collaboration with Governments:** In Costa Rica, where burning pineapple leaves has been banned due to its environmental impact, Ananas Anam's solution is particularly transformative, offering an alternative to harmful practices.

Economic Expansion and Global Collaboration

Ananas Anam is actively expanding its operations by collaborating with pineapple-growing countries worldwide. Negotiations in Costa Rica and Indonesia signal the company's intent to scale up production while maintaining its core social and environmental values. These efforts not only amplify the positive impact on farming communities but also contribute to solving global environmental challenges.

⁷⁵ Ananas Anam. (n.a.). About us. <https://www.ananas-anam.com/about-us/>

Case Study: Cocoa Industry Transformation in Ecuador⁷⁶

Ecuador produces 70% of the world's fine flavour cocoa, known as Arriba Nacional, essential for premium chocolates. Around 150,000 small-scale farming families engage in this critical activity. Despite increasing global demand, farmers' incomes remain stagnant. Only 8% of Ecuadorian cocoa is exported as finished chocolate, leaving 92% as raw material, subject to volatile global prices. Additionally, 86% of cocoa is marketed through intermediaries, further reducing farmers' earnings.

Pacari's Intervention

Founded in 2002, Pacari disrupts inequitable trade practices through a direct trading model involving 3,500 families across Manabí, Esmeraldas, Los Ríos, and Napo. By eliminating intermediaries, Pacari pays farmers above market rates, guaranteeing a minimum of €130 per quintal compared to the €25–€120 range in traditional markets. Financial incentives are also provided for quality and social responsibility.

Objectives and Initiatives

Pacari pursues three key objectives:

1. **Promoting Organic and Sustainable Practices:** Pacari offers training in organic and biodynamic farming, focusing on pest control with microorganisms and crop diversification. These efforts integrate environmentally sustainable methods with ancestral practices.
2. **Enhancing Living Conditions:** Social projects include distributing 250 water filters, improving access to green energy and clean water, and constructing anti-seismic schools in regions like Esmeraldas.
3. **Strengthening Partnerships:** Collaborations with initiatives like Programa Re-Emprende provide technical assistance and governance training, empowering farmer associations to manage production, finances, and fair trade systems effectively.

Achievements and Impact

Pacari's farmer-first model delivers widespread benefits:

- **Empowering Farmers:** Farmers achieve financial stability and gain technical expertise, enhancing their self-esteem and participation in the value chain.
- **Environmental Sustainability:** Traditional practices reduce chemical use, improve pest resistance, and support biodiversity.

⁷⁶ https://eulacfoundation.org/en/system/files/case_studies_circular_economy_eu_lac.pdf

- **Social Projects:** Partnerships with organisations like WWF facilitate wildlife conservation, access to technology, and certifications.
- **Growth in Associations:** Pacari's network has expanded from 400 families to seven associations representing 3,500 families, with many more seeking accreditation.

Pacari's ethical and high-quality practices have earned certifications such as Kosher, SPP, and B Corporation status. These recognitions attract support from private and public bodies, NGOs, and international organisations aligned with Pacari's vision.