

Finance for Jobs Project- F4J
DAI-Project Implementation Agency (PIA)

Environmental Screening and Categorization

Establishing an Agricultural Plastic Products Factory:
Greenhouse Nylon Covers and Thermal Shreds Manufacturing
Project
For Al-Bawader Co.
In Deir Sharaf Nablus

February 2022

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ACRONYMS:

EA	Environmental Assessment
EQA	Environment Quality Authority
EIA	Environmental Impact Assessment
EM	Environmental Matrix
ES	Environnemental Screening
EMP	Environmental Management Plan
ESMP	Environmental and Social Management Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESO	Environmental and Social Officer
F4J	Finance for Jobs
GIIP	Global International and Industry Practice
ICF	Investment Co-Financing Facility
M&E	Monitoring and Evaluation
MOA	Ministry of Agriculture
MoH	Ministry of Health

MoFP	Ministry of Finance and National Planning
OP	Operational Policy
PA	Palestinian Authority
PAP	Project Affected People
PEAP	Palestinian Environmental Assessment Policy
PEL	Palestinian Environmental Law
SEA	Strategic Environmental Assessment
WB	World Bank

Environmental Screening and Categorization

Establishing an Agricultural Plastic Products Factory:

Greenhouse Nylon Covers and Thermal Shreds Manufacturing Project

In Deir Sharaf, Nablus

0.0 Executive Summary and Recommendation

This screening report was prepared to satisfy World Bank's safeguard policies as well as the national EQA requirements as well as that address the environmental and socio-economic consequences of the establishment of an Agricultural Plastic Products factory in Deir Sharaf in Nablus Governorate.

The existing environment is described within the report covers those aspects of the physical, biological, social and economic environment that are relevant to the proposed project. The legal framework also identifies the project-environment interactions during different operational phases.

The project will have both beneficial and negative impacts on the physical, biological and social environment. Both these impacts and their associated mitigation measures are briefly discussed as elaboration will be within an ESMP report.

Based on the site inspection, nature and size of proposed investments, interviews and review of available documentations, as well as the intended activities within the site and potential impacts, the activity was classified as category B per World Bank Safeguard guidelines, and an ESMP was advised to be developed to define potential impacts of the project and define their mitigation measures.

The following conclusion was discussed with the project proponent, who declared as indicated later in the report to fully adhere with the outcomes, and then with EQA, Ministry of Agriculture and ministry of National Economy representatives as shown later in the text who declared the importance of the project in the area, and confirmed the fact that positive impacts are more likely to happen compared to the limited negative impacts.

Conclusion: Based on application review, field visit to the factory proposed site in Deir Sharaf, discussions with applicants and their representatives, review of applicable laws, bylaws and decrees, screening of potential environmental and social impacts based on planned activities,

the proposed Greenhouse Nylon Covers and Thermal Shreds Manufacturing Project in Deir Sharaf in Nablus area is classified as of category B.

Project preparation and funding approval requires the preparation and approval of facility construction an ESMP

I.0 Introduction:

Farming in Palestine is the largest sector of the economy. According to the Centre for Economic Policy Research (CEPR, 2020)¹, agriculture employs 13.4 percent of the population formally, though informally it employs about 90 percent of those who work. In Gaza, agriculture offers life-saving job opportunities. In the West Bank, where farming has been a way of life since ancient times, agriculture makes up an integral part of cultural identity. It also offers opportunities for stable employment and sustainability.

¹Relief web, OCHA series, Understanding Agriculture in Palestine and How Aid Can Help, Feb 2020

Cultivated and Arable Land area in the West Bank as of 2017 was 1,861.6 sq km in accordance to MOLG². that is cultivated with all kinds of vegetables and field crops, in addition to the groves of fruit trees, with 11% of vegetables. This land area supports the establishment of a Greenhouse Nylon Covers industry.

Farming inside greenhouses occupies a special importance in the Palestinian agriculture sector, as it is a source of income for many Palestinian families (since the greenhouses cover more than 60% of the vegetable yields for example), and greenhouses cover about 30 thousand dunums of agricultural area in Palestine (MOA website).

Plastic products related to agriculture are of vital important in this business. These products help solving the challenges of farmers and optimizing their growing. Among the most important products are greenhouse cover films and solarization films (thermal shaders).

Currently, there are no producers of such products in Palestine, and all demand is covered by the Israeli manufacturers.

1.1 The Applicant:

Al bawader is a newly established company by Sameer Junaidi in Deir Sharaf in Nablus aiming at investment in the agricultural sector. Al junaidi owns one of the largest nurseries in Norther West Bank.

The company is implementing a number of agricultural related activities mainly assembling of greenhouses structures, installations, import and distribution of plastic, and other related items in the farming sector. Distribute seedlings and provide technical support to farmers.

The company owns land in area “B”, 15 donums in total, and the infrastructure will be over an area of 5 donums. The land is in Deir Sharaf and is owned by Sameer Junaidi. The company with this investment intends to produce two kinds of plastic: 1- plastic for ceilings (Greenhouse covers) 2- plastic for ground (Thermal shreds) as well as the installation of a Thermal Shreds unit.

The company license was issues under the company’s law No. 12 for the year 1964 and its amendments under the license Number of 562531368. This license enables the company to:

² Ministry of Local Government, 2017. Geographical Information Management System in Palestine (GeoMOLG). Ramallah- Palestine

- Invest and work in all agricultural related activities including farming, research, outreach, production, marketing, export and import.
- Build direct relations with local banks,
- Purchase of land, machinery and selling of assets if necessary
- Planation of palm trees, manufacturing, export and
- Participating in local and international events.

This activity is within the mandate of the company, though it requires approvals and licensing from related authorities.

1.2 Project Components:

The factory will produce two kinds of plastic:

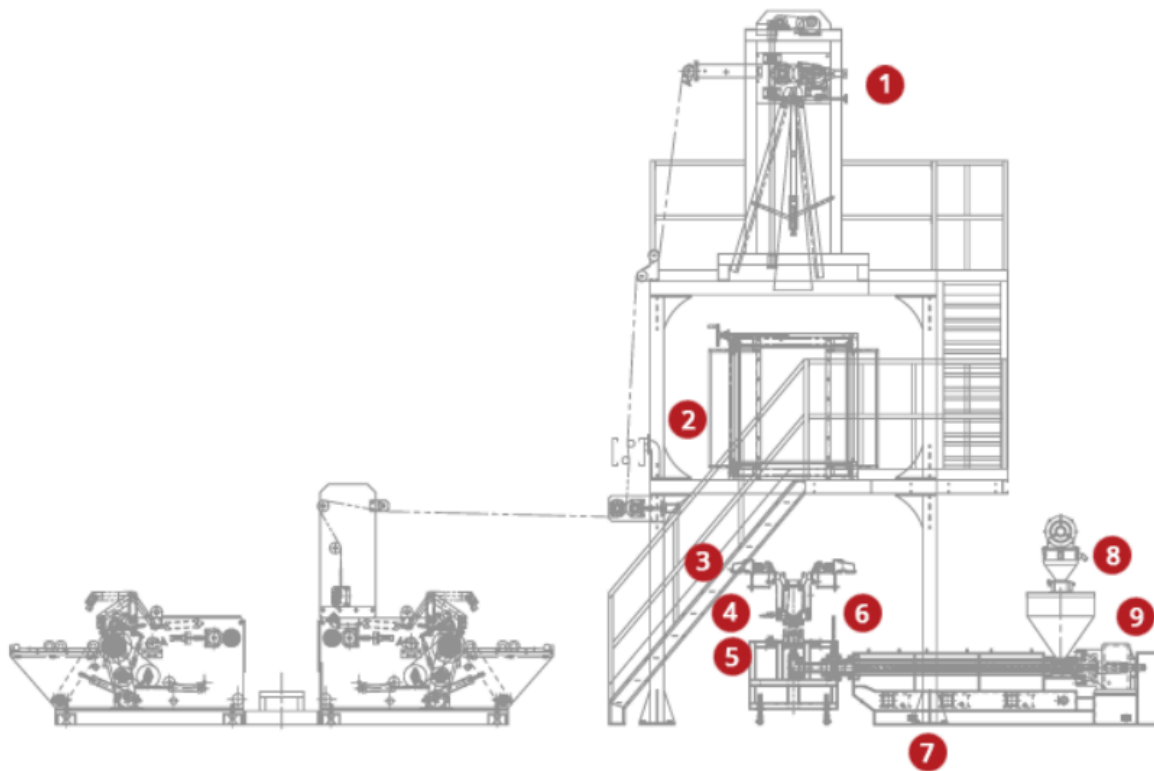
- 1- plastic for ceilings (Greenhouse covers), and,
- 2- plastic for ground (Thermal shreds)

The greenhouse cover films: Thermic greenhouse cover films are plastic films that block infrared radiation to reduce the risk of frost when the greenhouse is not heated and to reduce the energy consumption when a heating system is used. The thickness for these films is 40 micrometers, and every donum needs around 156 kg for being covered.

Thermal Shaders: Used for killing the viruses and bacteria after the land being prepared. This Every donum needs to be covered with around 36 kilograms of thermal shaders.

The factory will also provide a recycling line to manage the large quantities of wasted plastic covers and shreds, where a discount will be given for farmers in exchange for providing the used covers. The whole process is expected to create 60 new jobs.

Stage I: The Manufacturing Process:



1. Take-off roller
2. Fixed collar
3. Air Ring
4. Die Head

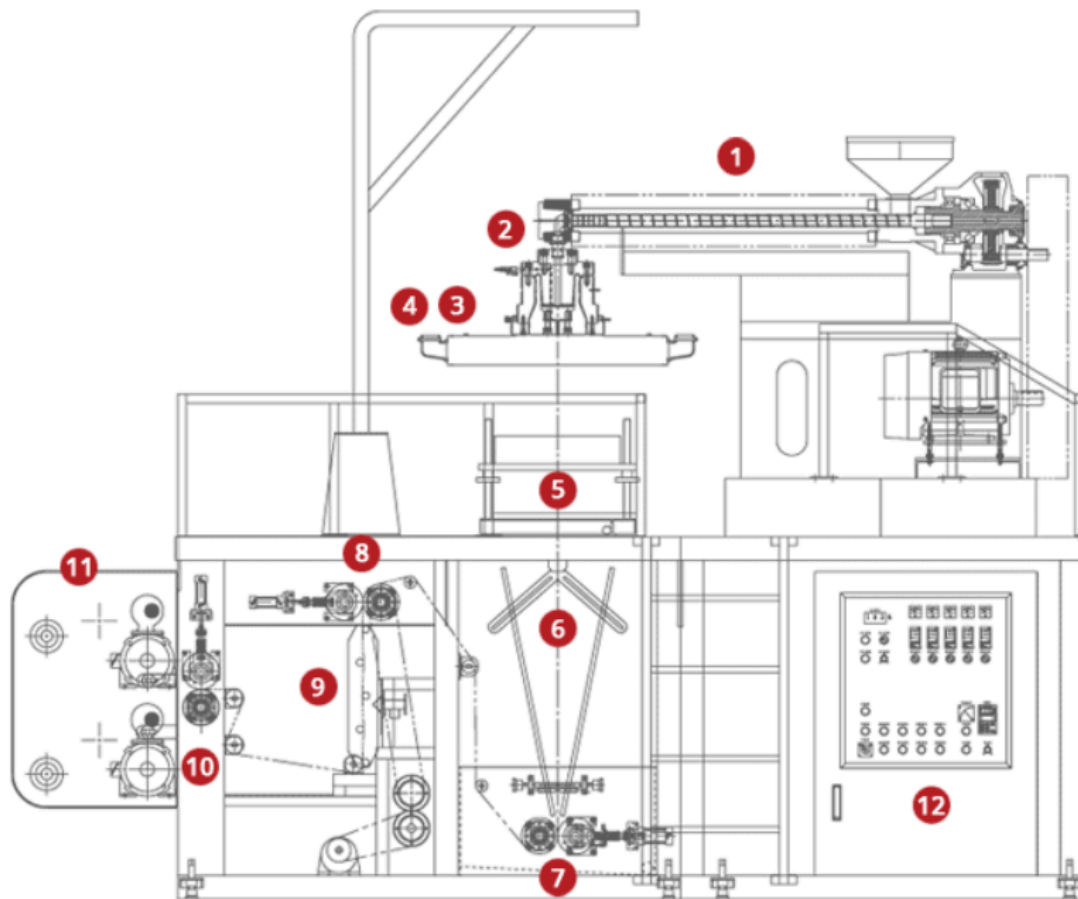
5. Rotating Mold (Additional equipment)
6. Filter
7. Extruder

8. Auto-loader device (Additional equipment)
9. Gearbox

- **Air ring** : Aluminum alloy-made high performance cooling system, steady wind flow, single and double air ring with precisely-built die head in order to produce large amounts and good quality plastic film.
- **Filter** : Filter through impurities without leaking. Easy to change filter screen.
- **Extruder** : Lower metal frame, built with iron casting gear box that is made of alloy steel with heat treatment and precise grinding. Solid, flexible, energy-saving, special spiral design with increased production capacity.
- **Additional equipment is available** : automatic suction feeder, air compressor, knurling wheel, anti static equipment, rotating mold, connected printer.

Stage 2: Blown Film Processing:

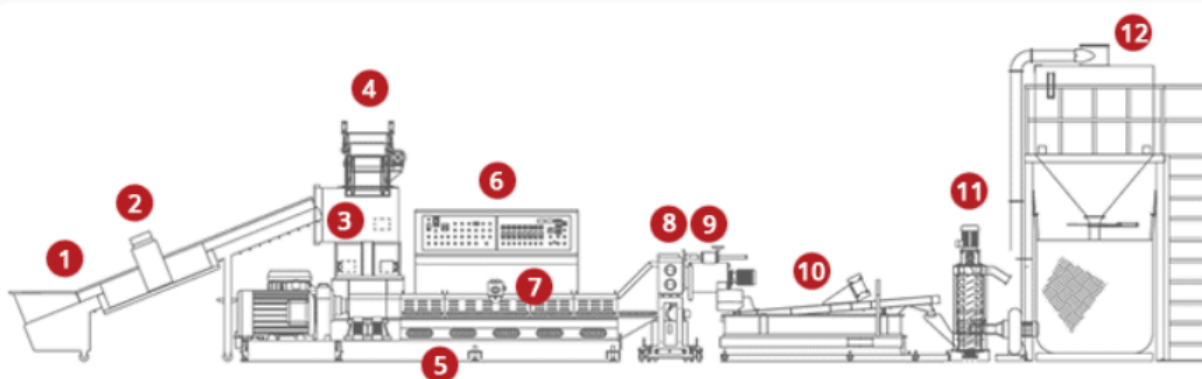
PP Blown Film Line Processing



- | | | |
|----------------------|---------------------|----------------------|
| 1. Extruder | 6. Cooling System | 10. 3rd Take Up Unit |
| 2. Die Head | 7. 1st Take Up Unit | 11. Winder |
| 3. Rotary Die Device | 8. 2st Take Up Unit | 12. Control Panel |
| 4. Air Ring | 9. Dry System | |
| 5. Water Ring | | |

Stage 3: Recycling Unit:

Plastic Bag Recycling Processing



1. Automatic conveyor belt
2. Metal detector : as soon as the metal is detected, the conveyor belt would stop automatically. (Optional)
3. Plastic crusher
4. Plastic waste feeding device : It is suitable for rolls of plastic waste. Feeding can be done manually or automatically. (Optional)
5. Extruder
6. Control panel of plastic film recycling equipment
7. Air vent : to remove the moist and oil after melting process. Additional air vent is allowed.
8. No disruption screen changer
9. Pellet cutting device : it is to adjust the size of plastic pellets.
10. Shaking and selecting : by vibration, fluid is removed and perfect size pellets are selected.
11. Plastic waste dehydrator : it is to remove the moist from pellets.
12. Plastic pellet collector

1.3 Project Objectives:

The objectives of the project as stated by the company are as follows:

- ✓ Meeting the local market's need for greenhouse plastic sheets,
- ✓ Reducing coverage costs for farmers,
- ✓ Encouraging investment in the agricultural sector,
- ✓ Providing the required product with high quality and reasonable price instead of importing it,
- ✓ Contributing to the renaissance of the agricultural and industrial sectors,
- ✓ Contributing to reducing the unemployment problem by providing more job opportunities directly and indirectly,
- ✓ Reduce the sector dependance on Israeli companies or policies,
- ✓ Environmental protection through waste plastic recycling, and prevention of plastic open burning, and,

- ✓ Support national efforts in reducing unemployment figures.

1.4 Project Location

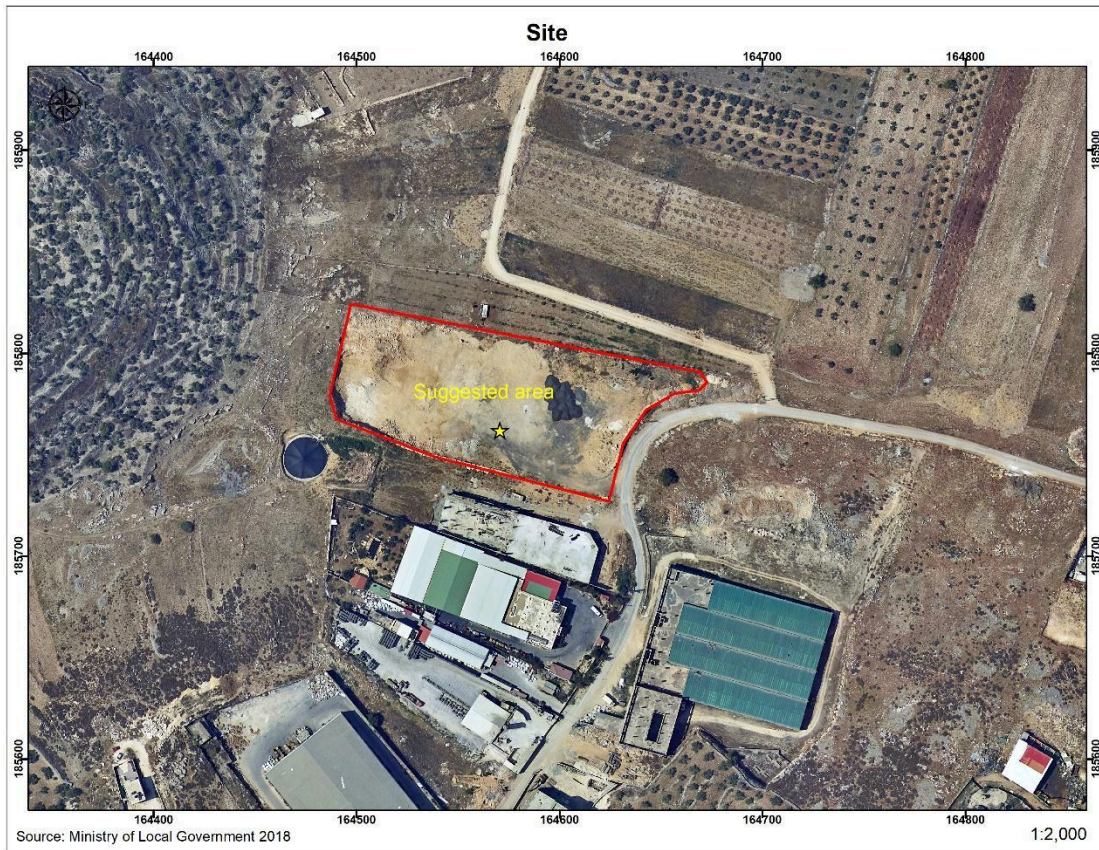
The planned factory is in the industrial area of Deir Sharaf in Nablus area. Deir Sharaf is a Palestinian village in the Nablus Governorate, located 7.8km northwest of Nablus City. It is bordered by An Naqura, Beit Iba, and Sabastiya to the East, Burqa and Ramin to the North, Beit Lid to the West, and Qusin village to the South. Deir Sharaf is located at an altitude of 320m above sea level with a mean annual rainfall of 574.5mm. The average annual temperature is 17°C whilst the average annual humidity is approximately 61% (ARIJ)³.

Over the past few years, Deir Sharaf industrial area has witnessed a number of infrastructure development activities including opening and paving of access roads, rehabilitation of old water networks and extending the water network to cover new built-up areas, construction of a sewage disposal network, construction of a new electricity network, and provision of solid waste collection containers.

Improvements were part of a strategic developmental plan prepared for the Governorate in 2010, and led by all related ministries and institutions under the umbrella of the governor of Nablus.

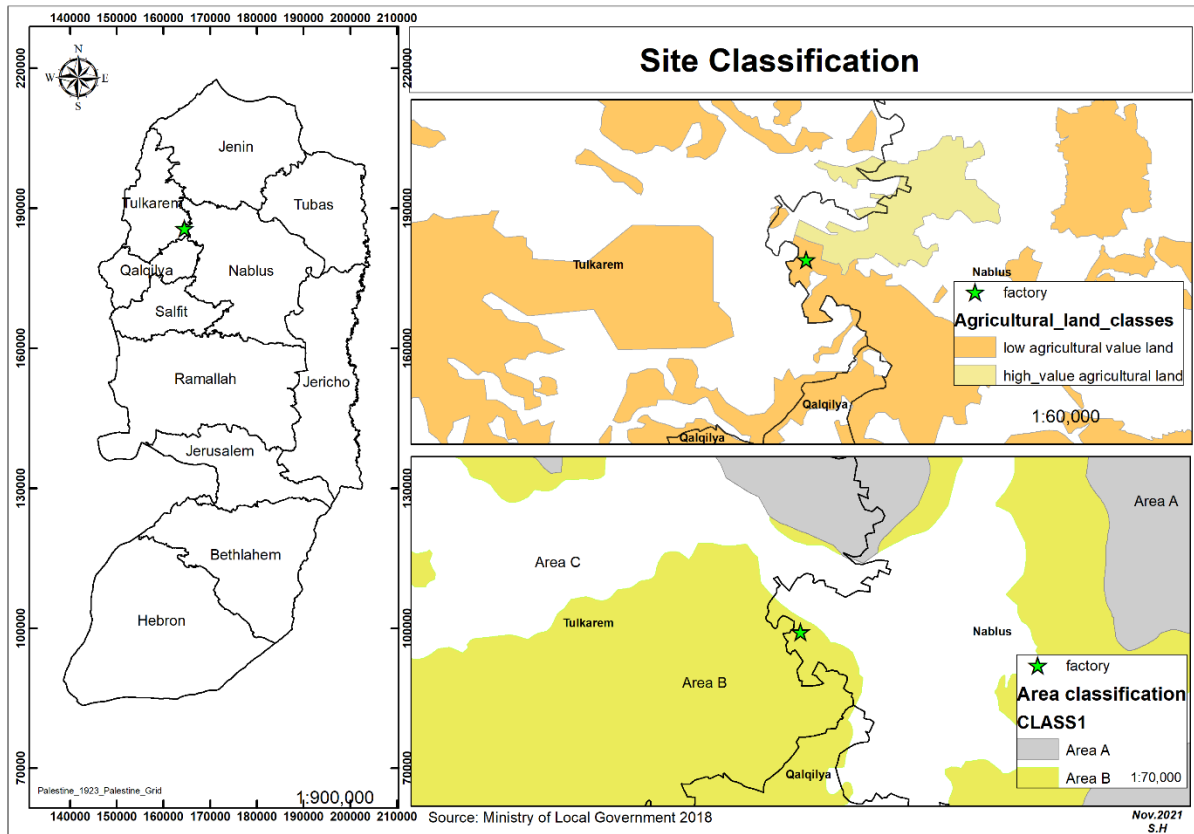
The district of Nablus climate characteristics and the geographical position of the district being in the northern part of the West Bank gives it a comparatively lower temperature range than the other districts. The annual mean temperature varies between 18 and 20 °C with an average of 25 – 28 °C during the summer and 8 – 10 °C during the winter period. Maximum temperatures reach 42 °C in the summer while minimum values in the winter drop down to –3 °C. During January, the coldest month, the average maximum temperature reaches 13.1°C, and average minimum temperature reaches 6.2°C. During August, the hottest month, the average maximum temperature is 29.4 °C and the average minimum temperature is 19.5°C.

³ Deir Sharaf Environmental profile, applied Research Institute, Jerusalem, 2014



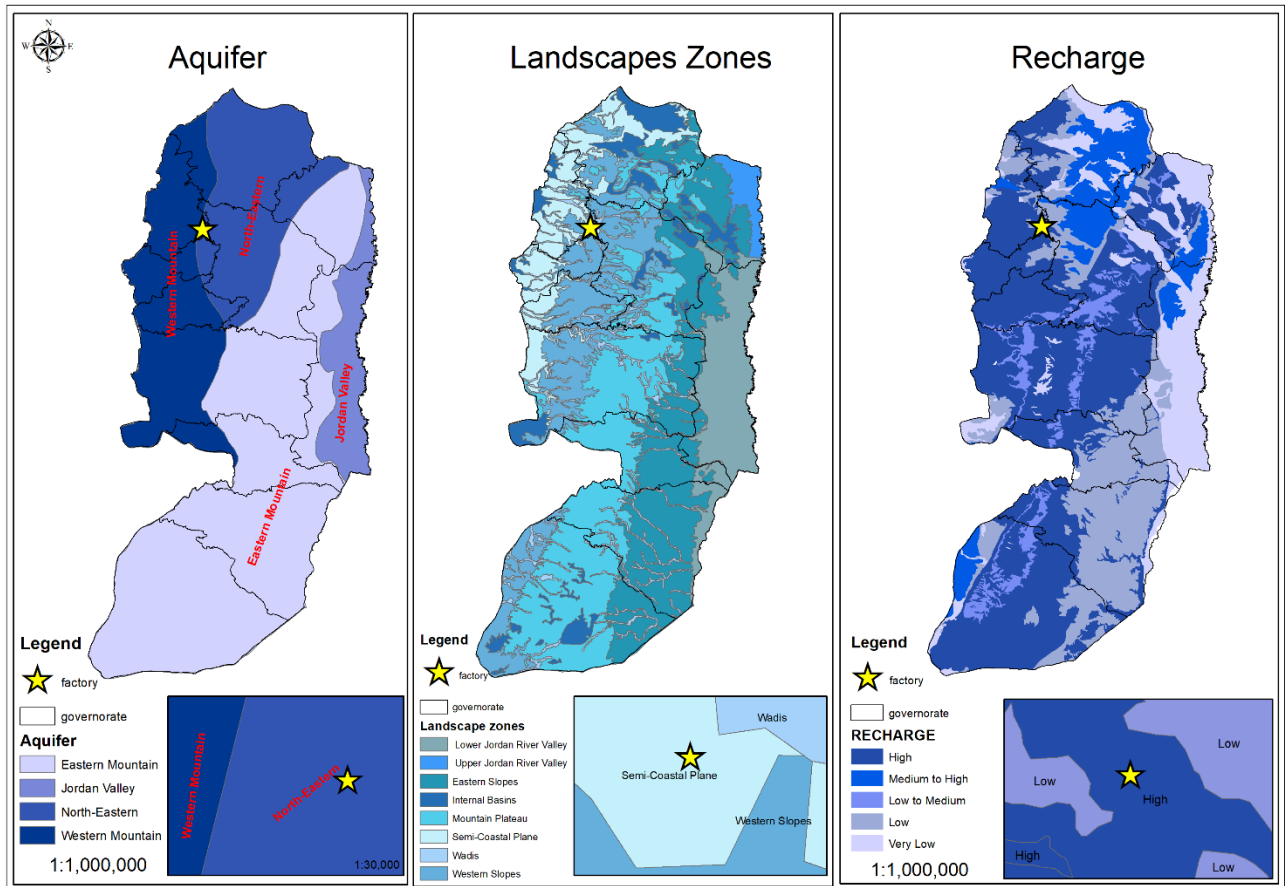
Proposed site in Deir Sharaf

Geopolitically, the site is within area B and is within a low grad agricultural classification area as shown below.

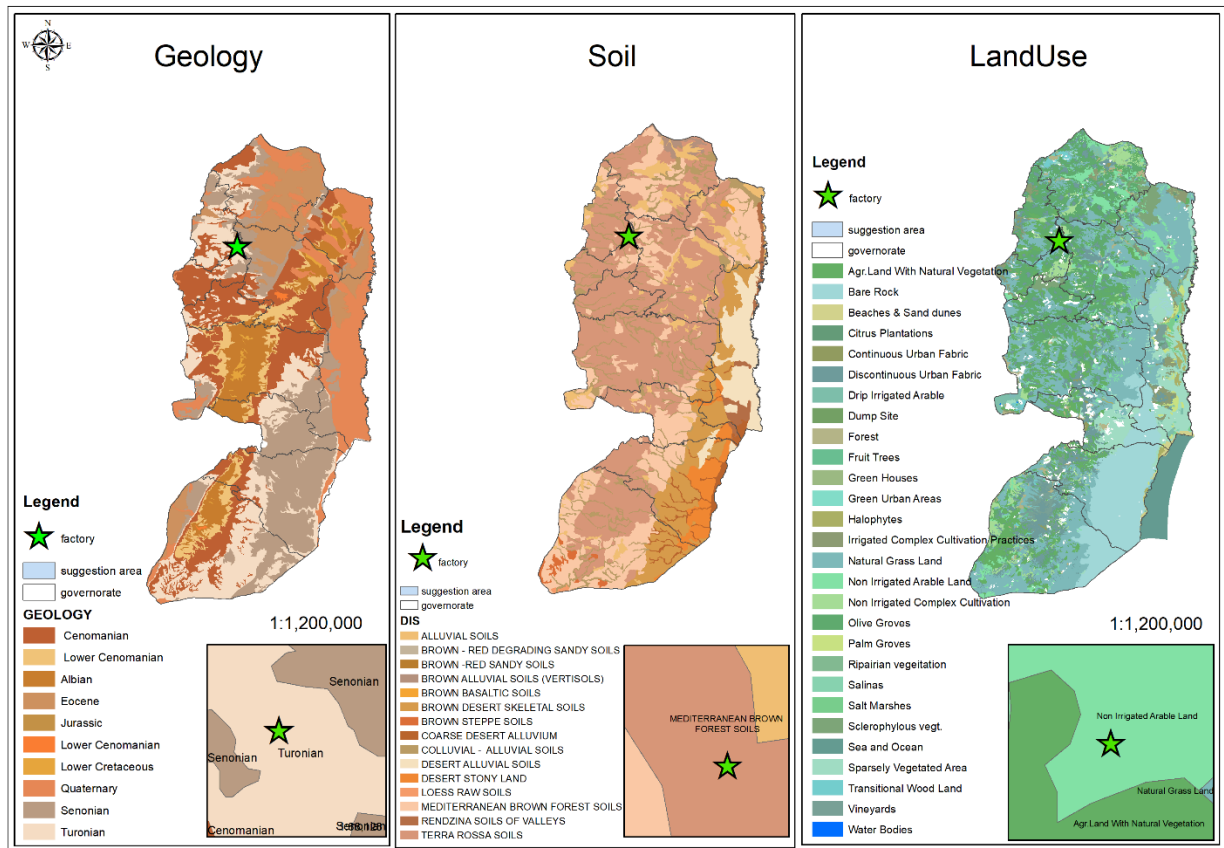


Map 1: site geopolitical classification

Although the site is on the edge of the Wester Aquifer, within the Northern Aquifer, the soil classification in the area and the structure of the geological formation gives enough aquifer protection to the aquifers.



Map 2: site aquifer, landscape and potential recharge



Map3: site geology, soil type and land use patterns

1.5 Stakeholders Consultations:

Given the nature of this project and the need to have the political enforcement for this kind of investment, the proponent, Mr. Junaidi discussed the idea with HE. The Prime Minister as well as with the Minister of Agriculture to seek their approval and endorsement and to express the idea that this is in line with the PA government policies, plans and directions in the agricultural sector.

Second, and to make sure that all imported equipment and production lines can cross the Israeli crossing point while meeting the Israeli standards, discussions were held with Beit Eil agriculture and environmental officers.

Within the key stakeholders, discussions were held with the Deir Sharaf Local council, Arab Bank manager, Mr. Hurani to seek his financial and economic point of view on this type of

investment if a loan is required from the Bank, and then in terms of investment feasibility, discussions for opinion sharing was made with PECDAR manger. and the last with made with the head of Palestine Agriculture Risk Reduction and Insurance Fund (PADRIF), Mr. Jaghoub for potential insurance of the investments.

Other consultations are still planned with the chambers of Commerce, Ministry of National economy, Ministry of Agriculture, EQA and Ministry of Labour. Discussions with nearby factories in Deir Sharaf Industrial area are planned once design and plans are completed.

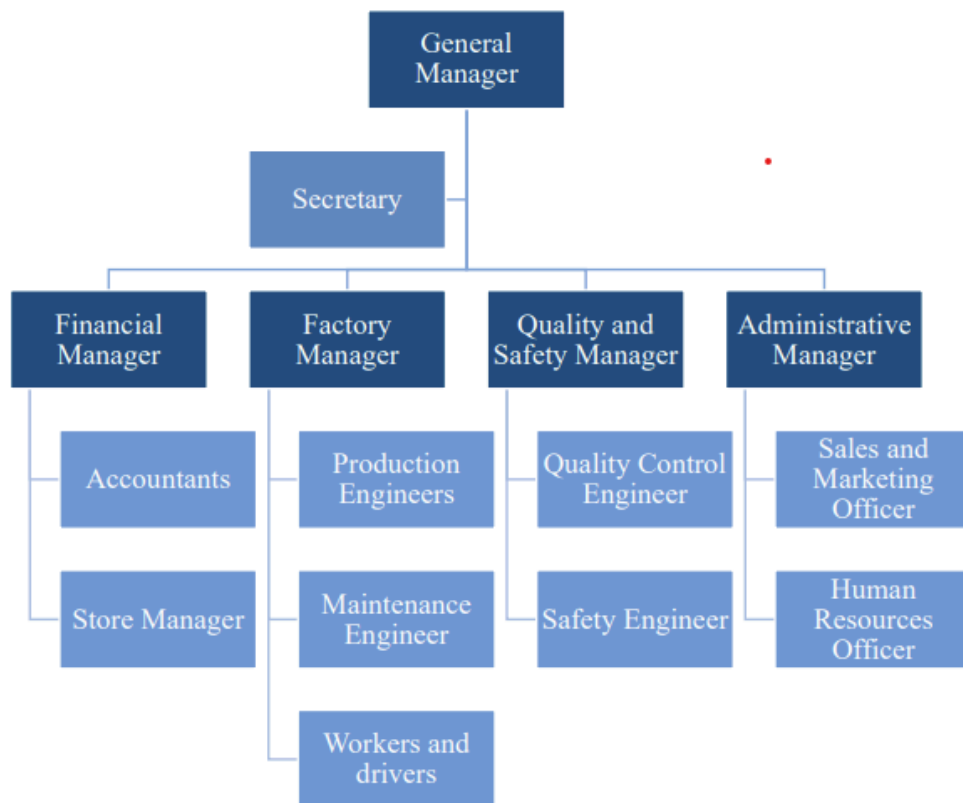
The project proponent refused to make farther publicity of this project before it is materialised, and funding is secured.

The list of consulted people by the consultant were as follows (table I):

Name	Institution	Purpose/discussion issues
Ayman Shawahneh	EQA	EQA requirements, and future monitoring for the project
Sameer Al Junaidi	Al Junaidi Co	Project details, capacities and policies in place
Mohammad Hamdan Jamal Daraghme	Ithmar company (Close to the site)	Expectations, potential impacts and sharing of services infrastructure
Samer Shnaaah	Al Tal El Akhdar Close to the site	Impacts of sharing services infrastructure and impacts during construction being a food factory
Abdullah Iahlooh	MOA	Ministry role, facilitation, and expectations

1.6 Project Management:

The company has suggested the following structure for the company. An occupational health and safety officer is to be added to the structure as well as an environmental officer. Both can be named and trained from the given structure.



2.0 Purpose of this Report

The purpose of environmental and social screening is to first diagnostic of E&S issues in order to have it as a basis for decision-making on whether or not to proceed with an investment moreover it will determine whether a proposal requires a full EA or not. If yes Screening will also be the basis of the TOR for a full ESIA while if full ESIA is not required, then screening becomes the main basis for the risk management planning

The main objective of this screening process is to:

- ☐ identify and highlight environmental and social issues that need to be taken into account in supporting the establishment of an Agricultural Plastic Products Factory in Nablus area.

- ☐ will enable the determination of the category of this project as per the World Banks' guidelines,
- ☐ set the ground for further reports that may require to be done, especially to ensure compliance with World Bank safeguards.
- ☐ assist in determining if this project requires a full Environmental and Social Impact Assessment study before its implementation.
- ☐ the overall purpose remains as to support the sustainable implementation of the planned project.

The basic intent of this report is to identify and resolve any anticipated environmental safeguard issues that may arise during the construction, installation or operation of the Plastics Products factory in Deir Sharaf (Greenhouse Nylon Covers and Thermal Shreds Manufacturing Project).

This report will encompass and summarize the findings of the environmental screening conducted during the month of December 2021 at an early stage of the project planning cycle. In summary, the screening report is prepared aiming at:

- Avoidance of potentially adverse environmental impacts and enhancement of positive environmental outcomes.
- Establishment of a mechanism to determine and assess future potential environmental impacts to be identified and cleared based on a community demand driven,
- Setting out mitigation, monitoring and institutional measures framework to be considered during implementation and operation of the project.

3.0 The Screening Process:

To complete the screening process, the following tasks were carried out by the ESO:

- review of project documents, designs, plans, and feasibility study,
- discussions with applicant, discussion with a number of key stakeholders.
- Site visit and inspection, details and characteristics
- Review of site maps, geology, hydrology, land use, soil characteristics and geopolitical classifications.
- fill in screening forms, based on listing of potential environmental and social impacts

- Review of impacts and evaluation of proponent institutional and technical capacities and willingness to adhere with the possible mitigation measures
- Meet with EQA and Deir Sharaf local council to look into their demands, expectations and approval; procedures
- Preparation of report draft and submission.



Taken during site visit

4.0 Applicable Environmental Policies and Legal Framework:

The project final funding approval is conditioned with its compliance with all applicable World Bank safeguard policies and relevant Palestinian laws, policies and regulations that correlate the project planning, implementation and operations to environmental and social standards.

4.1 World Bank Safeguard Policies

The World Bank (WB) classifies projects into four distinctive categories, depending on the type, location, sensitivity, and scale of the project, including the nature and magnitude of its potential environmental impacts. These categories are as follows:

Category A: This list is limited to those projects with significant environmental and social impacts, which require a full detailed EIA.

Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas including wetlands, forests, grasslands, and other natural habitats are less adverse than those of Category A projects. These impacts are site-specific, reversible, and in most cases easily remediable than for Category A projects.

Category C: These are projects, which have no adverse environmental impacts, and accordingly will not require any environmental assessment or follow-up.

Categories B and C projects require Initial Environmental Examination, limited environmental management plan (EMP), and/or Environmental Screening (ES).

Category FI: A proposed project is categorized FI (Financial Intermediary) if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental and social impacts.

Environmental screening is applied to FI projects to determine the level of Environmental Assessment (EA) to be required.

Under the World Bank's operational policies, there are ten environmental and social policies referred as the Bank's "safeguard policies". The Bank's environmental assessment policy and procedures in light of these ten safeguard policies are well described in the Operational Policy/Bank Procedures (OP/BP).

Given the above, and based on the site visit, documents review and project owner, a number of the above policies might be triggered (table 2) as a result of project implementation including site preparation, production line installation, operation and marketing:

Table 2: World Bank Policies

Policy	Summary of Core Requirements	Public Consultation
OP/BP 4.01 Environmental Assessment	Screen early for potential impacts and select an appropriate instrument to assess, minimize, and mitigate potential adverse impacts.	<p>This policy is triggered. Environmental assessment is a VVB as well as PA requirement. The factory will be subject to screening and a mitigation plan in accordance with these requirements.</p> <p>All requirements are to be considered by bawader company</p>
OP/BP 4.04 Natural Habitats	Do not finance projects that degrade or convert critical habitats. Support projects that affect non-critical habitats only if no alternatives are available and if acceptable mitigation measures are in place.	<p>Natural habitats as defined by OP/BP 4.04 will not be encountered due to screening exclusions and therefore will not be triggered. The proposed site is within the approved industrial area of Deir Sharaf, and natural habitat and biodiversity issues were studied at the site selection stage.</p> <p>Again, this will not be encountered due to screening exclusions and therefore will not be triggered.</p> <p>The area and due to heavy movement and work activities has no significant biodiversity of a value, within the site, no rare or special or protected species.</p> <p>Again, this will not be encountered due to screening</p>

		exclusions and therefore will not be triggered.
OP 4.09 Pest Management	Support integrated approaches to pest management Identify pesticides that may be financed under the project and develop an appropriate pest management plan to address risks.	No direct relation with farming, therefore, the factory operations does not involve any relation with agrochemicals.
OP/BP 4.10 Indigenous Peoples	Screen to determine the presence of Indigenous Peoples in the project area. Policy triggered whether potential impacts are positive or negative. Design mitigation measures and benefits that reflect Indigenous People cultural preferences.	There are no officially recognized Indigenous People in the project area; thus, this policy will not be triggered.
OP/BP 4.11 Physical Cultural Resources	Investigate and inventory cultural resources potentially affected, include mitigation measures when there are adverse impacts on physical cultural resources.	Cultural heritage has a special value in Palestine, and alteration, damage or removal is not allowed by law and within this program. This policy is not triggered Again, this was studied at the industrial are site selection stage.
OP/BP 4.12 Involuntary Resettlement	Assist displaced persons in their effort to improve or at least restore their standards of living. Avoid resettlement where feasible or minimize. Displaced persons should share in project benefits.	There will be no resettlements in the project, so this is not triggered
OP/BP 4.36 Forests	Support sustainable and conservation-oriented forestry. Do not finance projects that involve significant conversion or degradation of critical forest areas.	No forests exist in the project area, therefore will not be triggered.

OP/BP 4.37 Safety of Dams	For large dams, technical review and periodic safety inspections by independent dam safety professionals.	No dams exist in the proposed project area, therefore will not be triggered.
OP/BP 7.50 Projects on International Waterways	Ascertain whether riparian agreements are in place, and ensure that riparian states informed of and do not object to project interventions	No international waterways exist in the project area, therefore will not be triggered.
OP/BP 7.60 Projects in Disputed Areas	Ensure that claimants to disputed areas have no objection to proposed projects	This provision is not applied to West Bank and Gaza projects.

4.2 The Palestinian Environmental Requirements

Palestinian Environmental Law:

The Palestinian environmental legal and administrative framework has taken major strides towards protecting environmental resources and institutionalizing their sustainable management. The Palestinian Environmental Law (PEL) No. 7 of 1999 is comprehensive, covering the main issues relevant to environmental protection and law enforcement.

The Palestinian Environmental law (PEL) addresses various environmental management including:

- Management and protection of various resources. Issues covered are related to land environment, air environment, water resources and aquatic environment, natural, archaeological, and historical heritage protection;
- Environmental Impact Assessment (EIA) and auditing, permitting of development projects, monitoring of environmental resources and their parameters,
- Other issues addressed by the legislation include emergency preparedness, public participation, research training and public education.

Palestinian Environmental Assessment Policy

The Palestinian Ministerial Council approves the Palestinian Environmental Assessment Policy (PEAP), through resolution No: 27-23/4/2000. This Policy shall be interpreted and implemented to support the sustainable economic and social development of the Palestinian people through assisting in meeting the following goals:

1. Ensuring an adequate standard of life in all its aspects, and not negatively affecting the basic needs, and the social, cultural and historical values of people as a result of development activities.
2. Preserving the capacity of the natural environment to clean and sustain it.
3. Conserving biodiversity, landscapes and the sustainable use of natural resources.
4. Avoiding irreversible environmental damage, and minimizing reversible environmental damage, from development activities.

The National Strategy for Solid Waste Management in Palestine (2017-22):

The NSSWM was adopted in August 2017, following the first National Strategy for SWM 2010-2014. The first strategy was set up in 2004 by the Ministry of Local Government (MoLG). It is considered as the global framework of all decisions, programs, activities and medium-term investment plans, aiming at developing the SW sector in Palestine. Updating what was done in the first NSSWM, the National Strategy (2017-2022) includes also the willingness to align the Palestinian SW policy on the Sustainable Development Goals of 2030, especially Goal 3 (Health and Well-being), as well as Goal 11 (Sustainable cities and human settlements).

Palestinian labor Law:

The Palestinian Labor Law No. 7/2000 is applicable to the Project. The law includes provisions for occupational health and safety measures, protection of workers' rights, ensuring a safe working environment, life insurance, accidents insurances, working hours, workers' age and workers' wages. According to the law, the maximum number of hours per day that employee must perform is 8 hours; (Saturday through Thursday) and the allowed work week of 48 hours.

The employment of children before they reach the age of eighteen years shall be prohibited. In addition to Palestinian labor laws came through Ministry Council decision number 11 in October 2012 which set the minimum wage for employees in the Palestinian labor market at 1450 ILS. The law applies to both men and women, and was meant to improve conditions for workers.

Occupational Health and Safety (OHS) related Decisions and Decrees:

A number of laws, resolutions, and ministerial instructions and decisions have addressed, inter alia, issues of occupational safety and health, and suitability of the working conditions. These include:

- The ministerial decrees No. 15, 17, and 21 of 2003 concerning health conditions and standards at workplaces, medical assistance procedures at the workplace, and safety standards at companies.
- The Decision of the Council of Ministers No. (49) of 2004 concerning the preventive list of work hazards and career diseases and work accidents.
- Instructions by the Minister of Labor no. (1) of 2005 concerning the precautions to protect workers in construction sites.
- Instructions by the Minister of Labor no. 2-6 of 2005, defining the range of chemical exposure limits and standards, exposure to ionizing radiation, noise, and safe levels of brightness of light and temperature at the workplaces

Decision of the Council of Ministers No. (8) of 2016 on the Regulation on Complaints

This Regulation shall apply to every complaint filed by any recipient of service, or any person requesting a service who was harmed by the decisions of a government department, its procedures, practices or failure to perform services.

Directorate General was established and manage a computerized central government complaints system, linking it with the Unit and the Section, through which the Directorate

General shall be entitled to access periodical and one periodical report and to analyses them for work purposes.

The decision covers among other articles, complaints verification mechanism, review process, responding process, adherence to legal terms in appeals and reporting.

Adherence to EQA Environmental Requirements:

Based on initial screening during the site visit, the following is a summary of environmental findings:

Table 3: adherence to EQA requirements

No.	Environmental and Social Component	Impact			Comments
		Positive	No Impact	Negative	
1.	Air Quality			X	In both factory and recycling unit If not contained this can be harmful to the environment and public health.
2.	Groundwater Quality		X		Plastic cleaning generates huge amounts of water, rain water run of is expected in the quantities. settling is recommended to the cleaning water at the recycling unit.
3.	Community Water Supply		X		No burden on community/domestic water supply,
4.	Public Health and Services		X		No negative impacts are expected if all mitigation measures are considered
5.	Workers' Health and Safety			X	potential exposures to occupational health hazards.

6.	Noise Reduction		X		No heavy machinery shall be used other than those used on the construction phase.
7.	Cultural Heritage		X		No sensitive cultural heritage in the area to be affected
8.	Access to job opportunities	X			The company has indicated that 60 new jobs will be created at the factory
9.	Impacts on livelihoods	X			Related to workers income
10.	Social conflict		X		No public complaints are expected, this is an industrial area. no dispute on water or other resources or services.
11.	Impacts on gender issues and vulnerable groups	X			At least 30% of required work force will be women as they are already employed by the working company.
12.	Use of child labor		X		No child labor is considered in the factory
13.	Watercourses and Wadis		X		No major water courses in the area,
14.	Biodiversity		X		No special biodiversity in the factory area
15.	Soil Contamination		X		No farming is within the area
16.	Use of Pesticides and Fertilizers (apply PMP guidance)		X		NA to this project

5.0 Project Potential Impacts and proposed Mitigation Measures:

5.1 Potential social impacts of the factory

The company believes that the project will have positive impacts on local unstable economy especially in the last year due to COVID-19 pandemic.

- The importance of this kind of projects to the Palestinian economy, arise from the fact that it will contribute in reducing production costs of the farmers so increasing the productivity and income.
- Less dependance on market price fluctuation and full dependance on Israeli manufactures especially with the restrictions of the Israeli entry polices.
- Encouraging investment in the agricultural sector so in turn increases the GDP
- This kind of projects creates job vacancies and reduces unemployability rate which reached 25% in the first quarter in 2020.
- The lack of a local manufactures makes farmers more supportive to establishing a local factory which makes it hard for to change with generational shifts
- The use of modern and updated technology regarding the production of greenhouses supplies especially plastic covers and sheets which yields to a high-quality product

5.2 Potential Environmental Concerns:

Greenhouse plastic films are subjected to degradation due to their exposure to solar radiation and to chemical products used during cultivation. For polyolephinic materials, mainly low density polyethylene, ethylene-butyl acrylate copolymers and ethylene-vinyl acetate copolymers, this results in a service life which ranges from some months up to 3-4 years relative to the thickness of the film and to the degree of stabilization. So additional production means additional waste generation.

And with the intention to build a recycling unit within the factory area, this is believed to minimize the quantities of wasted plastic from the factory, and supports recycling policies and plans in the country. Still, the electricity consumption for the whole recycling process is the most resource demanding and the most GHG emitting input item. Moreover, the washing phase of disused covering films is the highest water demanding within the recycling process. But, as all used water will be recycled, then, as indicated by the owner based on other examples, up to 3 cubic meters will be used daily, most will be returned back to the washing process. And, Compared to other plastic-based fibers, manufacturing and processing of nylon is energy-intensive, which causes emission of greenhouse gases leading to global warming. Moreover, the process releases nitrous oxide, a greenhouse gas 300 times more potent than carbon dioxide, and which depletes the ozone.

Site preparation phase/ construction:

The proposed factory construction in Deir Sharaf will create negative, localized and reversible impacts based on the construction phases as follows:

Construction phase	impacts
Land surveying	No impacts
Complete land leveling	Noise, air emissions
excavations	Noise, air pollution, potential work accidents
construction	Potential occupational health and safety risks
Production line installation	Electrification, work accidents

1. Noise and vibration due to heavy vehicles and machinery affecting the public and occupational health especially the adjacent businesses.
2. Dust from earth works affecting both public and occupational health, this would be initiated during both excavation and construction phases of the project.
3. Problems on access roads and traffic jam, as the proposed site is on the main road within the industrial park, then traffic jam is expected during construction and excavations.
4. Occupational Health Hazards to worker from accidents or from hazardous materials, if any, like inflammables. This also includes risk to the public and workers associated with open excavations, workers' self-safety and security during the construction processes, COVID 19 infections if proper measures were not followed.

Factory Operations Phase:

Although Nylon itself does not contain any compounds that are dangerous to the environment or one's health, manufacturing Nylon does. The process of manufacturing Nylon releases nitrous oxides and since factories have no use for the byproduct, it is released into the atmosphere as waste, and nitrous oxides contribute to the destruction of stratospheric ozone and is a powerful greenhouse gas.

At the same time, another concern is health related to its thermal processing. Thermal processing of Nylon can cause many problems if one is exposed to the fumes or dust. Some of these problems include irritation of mucous membranes in the nose and throat, mechanical irritation of the eye and irritation of the skin. if working with the polyamide before it is cooled, workers can have their skin burned. If anyone were to ingest/inhale they may experience gastrointestinal discomfort. These are the health concerns that face workers in closer proximity to the production of Nylon.

The company expects a production of 2880 tons of plastic in the first year, and then to start increasing by 15% annually until the 10th year where production will be around 7300 tones. It is also believed that within the first two years, a 35 of the production will be wasted and then reduced to 1.5% after the second year due to improved skills and know how.

Products Distribution and Marketing:

The extent of environmental pollution caused by products distribution and transport depends on a number of factors including product packaging, manual or mechanical lifting, vehicles efficiency. Without undermine workers safety, the major issue is transportation; this activity cause traffic, which is a major source of greenhouse gas (GHG). To minimize impacts, the company is to look into reduction of packaging material, use of electric driven forklift and make sure that all vehicles are maintained regularly while workers follow occupational health and safety procedures.

In summary, the potential impacts of Greenhouse nylon production may include:

Table 4: potential impacts

issues	Phases	impacts	Mitigation measures
Air Emissions and Ambient Air Quality	Construction, operation	Naylon production and emissions from vehicles are key greenhouse gas emission. Exhausts are harmful to the environment as well as to workers. Respiratory impacts on workers, and nearby residents	Avoid windy days for excavations, installation of emissions cleaning and ventilation system is important within the facility. workers wear suitable masks when needed, sustainable maintenance for all machinery including distribution vehicles, proper waste handling.
Noise	Construction and operation	Noise generation from the use of machines and construction equipment with its impact on workers and neighborhoods at the construction phase.	workers wear ears' anti-noise devices, keeping continuous checking and sustainable maintenance for all machinery.

		In spite of the level of noise in working with most of the machinery in the factory are within the human accepted level (max. 60 Decibel), continuous subject to noise is considered harmful.	
Solid wastes	Construction, operation and marketing	It is inevitable that, during the construction phase and working of the factory, the solid wastes will increase both quantitatively & qualitatively. This is mostly construction waste and then nylons from poor efficient molds or extruders.	Consider waste minimization and recycling Arranging awareness training programs for all personnel on how to operate production lines and how to handle solid wastes.
Wastewater	Operation, recycling	Improper disposal and treatment of sewage/wastewater especially cleaning water from the recycling unit is an environmental hazard.	Connect system with local wastewater network, if not possible, have own septic tank and arrange with local authority on disposal, primary treatment of wastewater is recommended, for recycling unit, wastewater precipitation and settling is required.
Occupational Health and Safety	Construction, operation, marketing and recycling	Worker/employee subject to emissions, noise, smell, accidents/injury, burns and other work-related accidents	Train staff how to perform activities safely, use PPE and ensure there is adequate supply Follow OHS measures which should be prepared in accordance with WBG EHS

			<p>guidelines as well as GIIP (Global International and Industry Practice)</p> <p>Regularly monitor performance and conduct maintenance of equipment</p> <p>Warning signs within the factory and recycling unit</p> <p>Access to complaint system should be made easily to all workers and staff,</p>
<p>Community Health and safety</p>	<p>Construction and marketing</p>	<p>Movement of supply and products vehicles and equipment may cause traffic problems and create unsafe situations for locals.</p> <p>Unauthorized entry of local persons may place them in jeopardy if they are on work locations.</p> <p>working with machinery, loading and unloading, exposure to smell, products and raw material handling and storage, all can expose workers to occupational health hazards</p>	<p>Health insurance for all workers, medical check-up for all once a year,</p> <p>Follow MOH protocol on COVID 19.</p> <p>Strict supervision of occupational health and safety procedures</p> <p>All should go through OHS training.</p> <p>Ensure that a Traffic Management Plan is in place where this might be an issue.</p> <p>Ensure that the factory is properly barricaded during construction. Restrict contractor workers and public from going to the construction site during and outside working hours by placing posters, reflecting tapes and erecting barriers.</p>
<p>COVID 19 response Measures</p>	<p>Construction, operation, marketing and recycling</p>	<p>Exposure and spread of infection</p>	<p>Upon entering office or factory, staff and visitors must wear a face mask, have their temperature checked and hands sanitized.</p>

			<p>Adopt social distancing or physical distancing (at least 6 feet) for staff workstations.</p> <p>Report any occurrence of any Covid -19 cases of any workers or family members or persons in contact with those infected</p>
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6.0 Environmental and Social Screening and Classification of the Project

Table 5: Environmental and Social Screening and Classification of the Project

Environmental and Social Screening Questionnaire

Project Sponsor: Partial sponsorship from Finance for Jobs Project- F4J

Project Title: Establishment of Greenhouse Nylon Covers and Thermal Shreds Manufacturing Project in Deir Sharaf Nablus	
Which sector is the subproject in? Industry	
Please, give a short description of the proposed sub-project below:	
Questions	Actions
<p>1. Is the sub-project likely to have significant adverse* environmental impacts (based on type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts)?</p> <p>*Significant adverse impacts are generally:</p> <ul style="list-style-type: none"> (i) large-scale (ii) irreversible (iii) sensitive (iv) diverse (v) cumulative (vi) precedent setting (vii) may affect an area broader than the sites or facilities financed by the project 	<p>No</p> <p>Given the nature of the project, it includes facility construction, production line installations or production.</p> <p>minimal, small and limited impact will be localized to the construction area only.</p> <p>Expected impacts are neither of large scale, nor sensitive, all are reversible and can be mitigated, minimized or prevented.</p>
<p>2. Are this subproject's potential adverse environmental impacts on human populations or environmentally important areas--including wetlands, forests, grasslands, and other natural habitats likely to be:</p> <ul style="list-style-type: none"> (i) Site-specific? (ii) Reversible? (iii) Mitigated by specific mitigation measures? 	<p>limited adverse environmental impacts are expected. All can be minimized or mitigated, A number of positive social, economic and environmental impacts are expected.</p> <p>No wetlands, forests or natural habitat in the selected area.</p>
<p>3. Is the sub-project likely to result in significant degradation or conversion of habitats and/or forests in designated protected areas, proposed protected areas or areas that, based on local public consultation, are considered of special ecological significance?</p>	<p>No</p> <p>Installations is planned in a classified and approved, licensed industrial area.</p>
<p>4. Does this subproject have potential to cause</p>	<p>No</p>

significant conversion or loss or degradation of natural habitats either directly through construction or indirectly through induced human activities?	As already indicated, the project installation is within an approved and licensed industrial area, still with low-grade area. No flora, fauna or any significant biodiversity element was observed within the area or surroundings.
5. Will the sub-project utilize or discharge water from or into a river or river tributary that flows to or through or forms a border with a neighboring country or drains into an international sea or a sea that is connected with an international sea?	No No rivers within the area
6. Will this sub-project have any potential impacts on: (a) health and quality of forests; (b) rights and welfare of people who depend on or interact with forests; (c) and their level of dependence upon or interaction with forests; and/or (c) management, protection, or utilization of natural forests or plantations, whether they are public, privately, or communally owned?	No No forests are part of this program.
7. Does the sub-project propose to manufacture, transport, and/or directly finance the use of pesticides?	No The project does not include pesticides manufacturing, transportation or finance the use of pesticides
8. Does the project have the potential to stimulate increase/change in pesticides use)?	No The project does not at all involve any direct or indirect relation, contact or handling of pesticides.

9. Is this sub-project likely to have minimal or no adverse environmental impacts?	Yes, The investment may lead to a number of moderate, minimal and no adverse environmental impacts including: Workers safety at the construction and installation stage, factory operations, products marketing and distribution if proper mitigation and workers safety measures are not considered
10. Will this sub-project have potential to cause temporary or permanent relocation or any other type of impact on physical cultural resources known to be of local, regional, or PA significance based on PA or international list?	(No)
10.1. Social safeguards screening information	
10.1.1. Will there be any involuntary land acquisition?	(No)
10.1.2. Will the project reduce other people's access to their economic resources, such as land, pasture, water, public services or other resources that they depend on?	(No)
10.1.3. Will the project result in the resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development? Land-taking includes displacement of people lacking legal land title (squatters/none title holders of lands)	(No)
10.1.4. Will the project result in the temporary or permanent loss of crops, fruit trees, etc.?	(No)
10.1.5. Will the project result in the temporary or permanent loss of household infrastructure (such as granaries, outside toilets, and kitchens, etc.)?	(No)
If the answer to any of the above question is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and the project is excluded	
10.2. Required Documentation	
10.2.1. Is the information related to the affiliation and ownership status of the project site available and verifiable?	(Yes)
10.2.2. If there is a voluntary land donation, is documentation provided and have the World Bank procedure been followed as outlined in the ESMF?	NA
10.3. Cultural resources safeguard screening information	

10.3.1. Will the project require excavation near any historical, archaeological or cultural heritage site? Will the project require renovations of historical buildings sites?		(NO)
<p>If the answer to question 9.3.1 is “Yes”, then OP/BP 4.11 Physical Cultural Resources is triggered and the project is excluded</p> <p>Note: In any case and for the accepted subprojects possible chance finds must be considered in accordance with OP 4.11 and relevant procedures provided in the ESMF</p>		
11. What design alternatives have been considered and what measures are suggested to prevent, minimize, mitigate, or compensate for adverse impacts?	The site is an industrial area, all good practice procedures built so far by the company within the existing work will be employed in the new company	
12. What lessons have been incorporated into the design from the previous similar projects?	<p>Maximum use of land is, one managing board, one waste management plan, one recycling unit</p> <p>Staff continuous training and exposure to new technologies, resources management and COVID 19 instructions</p>	
13. Have concerned communities been involved yet? 14. If so, have their interests and knowledge been adequately taken into consideration?	No complaints are expected	
<p>If there is no adverse social and environmental impact, the project is considered EA Category C. Therefore, no ESIA or ESMP are required.</p> <p>Nonetheless, if the answer is “Yes”, then the project is under EA Category B and ESIA and ESMP are required.</p>		
Conclusions		
<p>The conclusion of the environmental and social screening:</p> <p><input type="checkbox"/> Project is declined</p>	<p>✓ Project is accepted <input type="checkbox"/></p>	
<p>✓ The project is classified as category B: <input type="checkbox"/></p> <p>The project is classified as category C: <input type="checkbox"/></p>		

<p>If accepted as category “B”, project preparation requires:</p> <ul style="list-style-type: none"> ✓ ESMP <input type="checkbox"/> ● *Application of applicable environmental matrix <input type="checkbox"/> <p>*Please refer to section 4 “<i>Environmental Assessment and Preparation of ESMP</i>”</p>
<p>If accepted as category “C”, project preparation requires:</p> <ul style="list-style-type: none"> ● *Application of applicable environmental matrix _____ <p>*Please refer to section 4 “<i>Environmental Assessment and Preparation of ESMP</i>”</p>
<p>If the subproject is considered as EA Category C, the project sponsors must sign the standard clause required by the WB, that states:</p> <ul style="list-style-type: none"> a) Design, construct, operate and maintain operations and leased equipment in compliance with the relevant laws and regulations of Palestine, and where relevant, additional applicable E&S requirements from the WB Safeguard Policy. b) Within three (3) days of occurrence, notify PIA of any social, labor, health, and safety, security or environmental incident, accident or circumstance having or which could reasonably be expected to have, any material impact on compliance of with applicable E&S requirements.
<p>Comments of Environmental and Social Officer (ESO):</p> <p>Name:</p> <p>Title:</p> <p>Signature:</p> <p>Date:</p>

7.0 Conclusion and Recommendations

Based on application review, field visit to proposed site, discussions with applicants and their representatives, review of applicable laws, bylaws and decrees, screening of potential environmental and social impacts based on planned activities, **the activity is classified as of category B.**

To proceed with the project funding and implementation, **an ESMP is to be completed for the proposed project.**

Based on above, the required ESMP should take into consideration the World Bank requirement and format, with emphasis on the following components:

- Occupational health and safety plan (OHS)
- Emergency Response Plan (ERP)
- Grievance Mechanism
- Institutional set up and capacity building plan
- Documentation and reporting plan.

8.0 References

- 1- Relief web, OCHA series, Understanding Agriculture in Palestine and How Aid Can Help, Feb 2020
- 2- Ministry of Local Government, 2017. Geographical Information Management System in Palestine (GeoMOLG). Ramallah- Palestine
- 3- Deir Sharaf Village Profile, ARJ 2014.
- 4- Project feasibility study.