

# TOWARDS SUSTAINABLE FOOD SECURITY IN THE OCCUPIED PALESTINIAN TERRITORY STRENGTHENING RANGELAND GOVERNANCE



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Project: Food Security Governance of Bedouin Pastoralist Groups in the Mashreq  
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# Introduction

Bedouin and herder communities are among the poorest and most marginalized populations in the Occupied Palestinian Territory. In the West Bank, an estimated 30,000 Bedouins live in 183 communities in Area C,<sup>1</sup> under complete Israeli control, and with many under a constant threat of forcible transfer due to what the UN defines a coercive environment created by the Israeli military occupation, with a discriminatory planning regime making it virtually impossible for Palestinians to receive building permits.<sup>2</sup> This regime also does not respect or accommodate the needs and traditions of pastoralist communities. The UN World Food Programme provides these communities with food assistance due to high levels of food insecurity.<sup>3</sup> In the Gaza Strip, there are some 75,000 Bedouins living in 18 Bedouin communities, many in border areas where there are access restrictions enforced by the Israeli army. These communities suffer from lack of access to basic services, and are some of the most marginalized in society in Gaza. They make a living as laborers in small-scale agriculture and as livestock herders. A similar number of Bedouins in the Gaza Strip no longer live in herding communities and have integrated into more urban areas. All the Bedouins in Gaza are registered as refugees.<sup>4</sup>

Despite their marginalization, Bedouin and herder communities are the principle rangeland managers in the OPT. The livestock sector makes a substantial contribution to the Palestinian economy: The value added by the agricultural sector in Palestine for the year 2012 was USD 322.6 million, about 5.9% of GDP. About 40% of the agricultural GDP is from livestock, and sheep and goats are about 36% of that sector in the OPT.<sup>5</sup> Livestock also contributes directly to family food supply at the household level.<sup>6</sup> Sheep and goat population in the OPT has been declining since 2006,<sup>7</sup> and as of 2014 was close to a million in total.<sup>8</sup> Strengthening Bedouin

and herding communities, and increasing their food security and their contribution to the economy, requires overcoming their economic disadvantages and internal fragmentation, which entails improving services such as education and health, as well as rangeland. The restrictions imposed by the Israeli occupation prevent Palestinians from accessing 85% of the potential grazing lands in Area C, which is approximately 60% of the West Bank, due to illegal Israeli settlements,<sup>9</sup> military zones, and the separation barrier.<sup>10</sup> The legislative framework governing Area C involves a complex overlaying of laws from previous systems – Ottoman, British Mandate, Jordanian – which have been interpreted by the Government of Israel in ways that have severe and negative implications for Bedouins and herders. This has led to mass declarations of state land in Area C, which Israel then allocates to the use of the settlements, thus denying access to the Palestinians living there. One form of state land under Ottoman Law, Matruka, was public land dedicated to a village or group of villages specifically intended for grazing purposes. The way the Government of Israel interpreted the land laws in the West Bank in the 1980s means that communities require a written allocation document for the village in order to maintain this status of the land, despite the opposite interpretation during the British mandate and in a ruling inside Israel in Tel Aviv in 1949. Israel effectively ignored the designation of Matruka land and declared grazing areas as state land throughout the West Bank.<sup>11</sup> This is but one example of the complete disregard for the needs of herding communities under Israeli occupation –

while in some cases Palestinians have been able to maintain or regain access to their land for agricultural cultivation, herders have been more vulnerable to

<sup>1</sup> OCHA, 'Addressing food insecurity among herders in Area C of the West Bank', 31 July 2015.

<http://www.ochaopt.org/content/addressing-food-insecurity-among-herders-area-c-west-bank>. According to the 1995 Oslo Accords, the West Bank is divided into three areas: Area A, approximately 20% of the West Bank, is under total Palestinian control – civilian and security, and includes the urban concentrations of Palestinian population; Area B, approximately 20% of the West Bank, is under Palestinian civilian control and Israeli security control, and includes built-up area of most villages; And Area C, the remaining approximately 60% of the West Bank, is under total Israel control – civilian and security.

<sup>2</sup> OCHA, 'Bedouin Communities at Risk of Forcible Transfer', September 2014. [https://www.ochaopt.org/documents/ocha\\_opt\\_communities\\_jerusalem\\_fact-sheet\\_september\\_2014\\_english.pdf](https://www.ochaopt.org/documents/ocha_opt_communities_jerusalem_fact-sheet_september_2014_english.pdf)

<sup>3</sup> OCHA, 'Addressing food insecurity among herders in Area C of the West Bank', op. cit.; OCHA, 'Occupied Palestinian Territory: Humanitarian Needs Overview 2017', November 2016. <http://reliefweb.int/report/occupied-palestinian-territory/occupied-palestinian-territory-humanitarian-needs-overview-1>.

<sup>4</sup> Based on Oxfam and UWAC assessment conducted in late 2015.

<sup>5</sup> PMDP, 'Market System Analysis: Weaned Lambs', May 2016, p. 9. [http://fscluster.org/sites/default/files/documents/pmdp-market\\_system\\_analysis\\_weaned\\_lambs-executive\\_summary.pdf](http://fscluster.org/sites/default/files/documents/pmdp-market_system_analysis_weaned_lambs-executive_summary.pdf).

<sup>6</sup> State of Palestine, Ministry of Agriculture, Livestock Sector Strategy, '2015-2019, 2015'.

<sup>7</sup> PMDP, 'Market System Analysis: Weaned Lambs', p. 9, op. cit.

<sup>8</sup> PCBS, 'Selected Agricultural Indicators about Number of Livestock in Animal and Mixed Holdings in Palestine', 1.10.13. [http://www.pcbs.gov.ps/Portals/Rainbow/Documents/LSS\\_2013\\_E\\_main.htm](http://www.pcbs.gov.ps/Portals/Rainbow/Documents/LSS_2013_E_main.htm).

<sup>9</sup> In 2015, there were 385,900 settlers living in Area C of the West Bank. See Peace Now, Settlement Watch, 'Data: Population', <http://peacenow.org.il/en/settlements-watch/settlements-data/population>. An additional 200,000 settlers live in settlements in East Jerusalem. See Ir Amim, 'Settlements and National Parks', <http://www.ir-amim.org.il/he/issue/%D7%94%D7%AA%D7%A0%D7%97%D7%9C%D7%95%D7%99%D7%95%D7%AA-%D7%95%D7%92%D7%A0%D7%99%D7%9D-%D7%9C%D7%90%D7%95%D7%9E%D7%99%D7%99%D7%9D>.

<sup>10</sup> UNCTAD, 'The Besieged Palestinian Agricultural Sector', 2015, p. 16. [http://unctad.org/en/PublicationsLibrary/gdsapp2015d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/gdsapp2015d1_en.pdf).

<sup>11</sup> B'Tselem, 'Under the Guise of Legality', February 2012, pp. 43-44. [http://www.btselem.org/download/201203\\_under\\_the\\_guise\\_of\\_legality\\_eng.pdf](http://www.btselem.org/download/201203_under_the_guise_of_legality_eng.pdf).

<sup>12</sup> OCHA, 'Access Restricted Areas (ARA) in the Gaza Strip', July 2013.

displacement and less likely to gain access to rangeland. In the Gaza Strip, Israel limits access to areas up to 300 meters from the perimeter fence, making some 35% of agricultural lands inaccessible.<sup>12</sup>

While many of the principle barriers to the economic development of Bedouin communities are related to the occupation, some can be addressed independently by the communities themselves, civil society organizations, the PA government agencies and international aid programmes. Better rangeland management would enable the optimization of the available resources and increase the productivity of the existing strong sector, increasing food security under the given constrained conditions. The aim of this paper is to address the challenges facing rangeland management in the OPT and the possibility of change driven by these actors.



## The environmental effects of declining rangeland

The OPTI is known for its rich biodiversity, with an estimated 2,500 plant species, of them 800 rare and 140 endemic, at least 80 species of wild mammals, and 380 different bird species.<sup>13</sup> The rangelands in the OPT play a crucial role in supporting this biodiversity and environmental quality, and their resources, including flora and fauna, contribute directly to combating desertification, participate effectively in countering soil erosion through soil fixation and enrichment.<sup>14</sup>

Rangelands do more than facilitate all aspects of livestock production. They contribute to water storage and the regulation of water supply, provide clean air and harbour biodiversity, in addition to their importance as recreation spaces and their cultural value. On the global level, rangelands contribute to mitigating climate change by playing a role in capturing and storing carbon. The science of rangeland ecology has matured rapidly in recent years and there is now convincing evidence that herding can be not only beneficial to rangeland health, but is essential for their existence. Most rangeland ecosystems exist only through the close interaction between the plants and their grazers. Where grazing animals are removed from the system, or where their natural behaviour of short, intensive action are disrupted, those ecosystems change, and often degrade. The role rangelands play is a result of a long process of co-evolution between plant life and grazing animals, with herders' management sustaining the natural interactions between the two. Important features of effective rangeland management can include short periods of heavy grazing, favouring grasses over shrubs, seasonal timing of grazing to ensure the most productive grasses can set seed before they are grazed and seasonal herd movements, which allows pastures to rest and recover from each bout of grazing.<sup>15</sup> The changes in herders' lifestyle, herding practices and rangeland management are detrimental to rangeland health. In order to restore and maintain a healthy ecosystem, the practices must be adapted, to the best possible extent within the existing constraints.

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<sup>13</sup> Jad Isaac and Stephen Gasteyer, 'The Issue of Biodiversity in Palestine', Applied Research Institute – Jerusalem (ARIJ). [http://www.arij.org/files/admin/1995\\_the\\_issue\\_of\\_biodiversity\\_in\\_Palestine.pdf](http://www.arij.org/files/admin/1995_the_issue_of_biodiversity_in_Palestine.pdf)

<sup>14</sup> Environmental Quality Authority (EQA), 'The National Strategy: Action Programme and Integrated Financing Strategy to Combat Desertification in the Occupied Palestinian Territory', 2012.

<sup>15</sup> D. McGahey, J. Davies, N. Hagelberg and R. Ouedraogo, 'Pastoralism and the Green Economy – a Natural Nexus?' UNEP & IUCN, Nairobi, 2014. pp. ix + 58. <https://portals.iucn.org/library/sites/library/files/documents/2014-034.pdf>

## Barriers to the development of the livestock sector and effective rangeland management

The most obvious factor affecting rangeland availability in the OPT are the restrictions on access to land, caused by the discriminatory Israeli planning regime and by the settlements in Area C of the West Bank and by limited access to the area near the perimeter between Gaza and Israel. However, in addition to this major restriction, there are many other key factors contributing to the challenges in rangeland management, some of which are not unique to the local context.

The rapid urbanization of the OPT, with a population growth rate of 3% and limited areas for urban expansion due to the occupation, preventing strategic planning for the entire area, leads to large areas of fertile agricultural land and rangelands being used for urban development.<sup>16</sup>

The development of agriculture and irrigation in the West Bank and Gaza have affected the availability of rangeland, both simply by taking over potential rangeland and converting it for growing crops, as well as by affecting the groundwater quality. Currently, 5% of the cultivated area in the West Bank and 60% of the cultivated area in the Gaza Strip is used for irrigated agriculture. This form of agriculture increases the ground water discharge and elevates pollution from fertilizers, pesticides and other chemicals.<sup>17</sup> Changes in water flows have an effect on soil erosion as well, which can lead to soil degradation. More than 50% of the West Bank has a relatively high rate of soil erosion already.<sup>18</sup> All these components can lead to a high negative impact on livestock production.

Weak regulation regarding rangeland fragmentation also plays a part in weakening rangeland management. The Palestinian Land Authority (PLA) formulated a new land policy in 2008 but it was never authorized due to political constraints.<sup>19</sup> As a result of weak regulation and multi-layered legal systems in place, nearly 30% of agricultural plots in the West Bank are smaller than 0.3 hectares. In the Gaza Strip the land policy is more straightforward, but even so, 55% of plots are under 0.3 hectares. This

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<sup>16</sup> Food and Agriculture Organization of the United Nations (FAO), 'The Status of Land Tenure, Planning and Management in the West Bank and Gaza Strip', 2015.

<sup>17</sup> Isaac and Gasteyer, 'The Issue of Biodiversity in Palestine', op. cit.

<sup>18</sup> McGahey, Davies, Hagelberg, and Ouedraogo, 'Pastoralism and the Green Economy', op. cit.. Cf. also FAO, 'Land Tenure', op. cit..

<sup>19</sup> FAO, 'Land Tenure', op. cit..

<sup>20</sup> FAO, 'Land Tenure', op. cit.; M. Nori, M. El Mourid, A. Nefzaoui and P. Giorgi. 'Herding in a Shifting Mediterranean: Changing agro-pastoral livelihoods in the Mashreq & Maghreb region'. Paper prepared for the Workshop 4 Competition over resources, rural poverty and agrarian policies in MENA At the 10th Mediterranean Research Meeting – 2008. European University Institute, Robert Schuman Centre for Advanced Studies.



reduces the efficiency of the land use, by leading to plots being too small for it to be worthwhile to use them, and to an individualized approach to management rather than a joint communal approach.<sup>20</sup> In order to balance the size of the herd with the small plot of land available to them for grazing, herders have either sold their flocks altogether, or retained only a small flock. The limited access to public rangeland prevents the traditional pastoral economy from thriving. Herders who do not own land or own very small plots of land, who could have relied in the past on public herding land, cannot sustain their herds. Wealthy herd lords (owners of herds who employ the herders for maintenance but enjoy most of the profits themselves) who are not local, and can afford fodder and water storage, expand their herds at the expense of the smaller herds, leaving the original owners with no available rangeland and source of income.<sup>21</sup> Bedouins who can no longer earn a livelihood from livestock often immigrate to cities, where they join the labour force in low-skill employment, are economically disadvantaged, and at the same time, their traditional knowledge in herding is not utilized and is eventually lost.

The reduction in availability of grazing areas leads to over-utilization of the accessible areas, harming the natural cycle of growth and disrupting future food supply. It has also led to another component in the shrinking of the sector, which is the rising fodder prices that make it less profitable to herd. While in the past farmers needed to purchase fodder only for a few months of the year,<sup>22</sup> herders now rely on a greater proportion of purchased fodder, and this counts for 70% of the costs of production.<sup>23</sup> When adequate quantity and quality of fodder is not purchased, the lack of proper nutrition leads to compromised animal health. An additional effect of reduced access to land is also the crowded spaces in which livestock are kept, increasing the spread of animal infection and increasing the economic risks of herding. This compounds already existing risks as a result of herders' practices such as borrowing male sheep for breeding and keeping animals in sheds without proper

ventilation. This could also pose a risk to human health due to the proximity of animal and human dwellings.<sup>24</sup> These risks have been addressed by humanitarian assistance projects, among them Oxfam's efforts to vaccinate flocks and to encourage the use of artificial insemination and provide the logistical support for this through our partners.

Another element crucial to the development of the sector is the empowerment of community members and their ability to participate in the rangeland management and strategic planning of the livestock sector. The herd lords taking over is one aspect of this. An additional aspect is that while women actively participate in herding and agricultural activities, and play a crucial role in securing food and income in rural families, they do not enjoy land ownership rights in their communities. This lack of legal land ownership can also affect their ability to receive government or international assistance when their livelihood is impacted by loss of access to land.<sup>25</sup> Women pastoralists play a key role in pastoral development, rangeland evaluation and livestock breeding, and possess crucial technical knowledge in animal husbandry and marketing of pastoral diverse products. Building the capacity of women within pastoralist communities and giving them agency to fully manage their economic development is key to increasing the productivity of the sector. While international programs, such as Oxfam's AMAD program,<sup>26</sup> build women's capacity to develop businesses, only regulatory change and community processes can give women full access to their fair share in the economy through land ownership. The role of youth in herder communities in current practices and their aspirations for the future are yet to be explored, but they too would need to be included in any comprehensive participatory process.

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<sup>21</sup> Nori, El Mourid, Nefzaoui, and Giorgi, 'Herding in a Shifting Mediterranean', op. cit.

<sup>22</sup> B'Tselem, 'Expel and Exploit', December 2016, p. 7. [http://www.btselem.org/sites/default/files/201612\\_expel\\_and\\_exploit\\_eng.pdf](http://www.btselem.org/sites/default/files/201612_expel_and_exploit_eng.pdf).

<sup>23</sup> Ministry of Agriculture, 'Livestock Sector Strategy', op. cit.

<sup>24</sup> M. Nori, 'Breeders within Borders: Palestinian Rural Livelihoods during the Second Intifada', PLSC (2003).

<sup>25</sup> OCHA, 'The Gaza Strip: The Long Term Impact of the 2014 Hostilities on Women and Girls', December 2015.

<http://www.ochaopt.org/content/gaza-strip-long-term-impact-2014-hostilities-women-and-girls-december-2015>

<sup>26</sup> 'From Water to Markets: a big challenge for small scale breeders and dairy producer women groups in the West Bank' funded by the Italian Ministry of Foreign Affairs, Fondazione Zegna and Fondation Assistance Internationale.

## Current interventions related to rangeland management

The OPT is deeply reliant on international aid. In 2015, the PA received an annual \$750 million in aid.<sup>27</sup> Alongside sustaining the government structures, and immediate relief, which the Bedouin communities receive in food assistance and other humanitarian aid for human and animal populations, some aid also focuses on long-term development, which is crucial for the growth of Palestinian economy and for its independence. For example, in 2012, 86 million USD were invested in projects addressing issues of land degradation, drought and desertification. However, with fragmented, project-based aid with specific goals, such as fruit tree cultivation which has increased over the past decade as part of land reclamation efforts,<sup>28</sup> the livestock sector and rangeland management have at times been overlooked. Some of the development projects have adverse effects on rangeland management despite their contribution to other sectors. In order to remedy this, enable the livestock sector to live up to its potential, and empower the marginalized Bedouin and herding communities, the need for improved rangeland management must be incorporated in broader development strategies.

**1. Water:** Access to water is crucial for the management of herds and the feasibility and profitability of the livestock sector. The Israeli limitations placed on access to water, especially in Area C but affecting the entire West Bank, have been identified as a key factor to economic delay in the agricultural sector.<sup>29</sup> Many international interventions address the water situation in the West Bank, and some, such as cistern rehabilitation, irrigation systems for agriculture and water recycling initiatives are directly linked to rangeland management. However, this may, at times, negatively impact the rangelands themselves. For example, providing water from external sources may change the traditional patterns of seasonal movement, which in the past were a result of water availability. This can disrupt the grazing patterns and affect rangeland health; and water flows from irrigation schemes can shift rangeland balance and quality.

**2. Forestation and planting:** Projects to re-seed rangelands and reforestation projects are aimed at improving soil fertility and raise farmers' awareness to rangeland development and importance. The practice of allocating land for grazing purposes, and when needed preventing seasonal access to enable re-seeding or reforestation that will be sustainable, is one of the most ancient practices in the region, known in Jordan as "Hima". However, with the deterioration of the traditional governance mechanisms, new approaches must be used to achieve the same goal for the benefit of the public.<sup>30</sup>

**3. Governance:** supporting herding communities to participate in the decision-making process and influence policies affecting rangeland management is crucial not only for their economic development but also for empowering a socially marginalized population. The "Food Security Governance of Bedouin Pastoralist Groups in the Mashreq" project led by Oxfam under the European Commission (EC) is one of the projects aiming to strengthen Bedouin communities' livelihoods and develop participatory governance.

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<sup>27</sup> See e.g. A. Abu Amer, 'Why Donor Countries are Giving Less to the Palestinians', 24 February 2016. <http://www.al-monitor.com/pulse/originals/2016/02/palestinian-authority-reduce-foreign-aid.html>

<sup>28</sup> EQA, 'Action Programme', op. cit.

<sup>29</sup> Center for Economic and Social Rights (CESR), 'The right to water in Palestine: a background. Factsheet 1'. <http://www.cesr.org/downloads/Palestine.RighttoWater.Factsheet.pdf>

<sup>30</sup> Hima Management Committee, 'Community Management Plan for Hima Bani Hashem, 2013-2017', pp. 4-6.

## Recommendations

The occupation is the core driver of poverty and vulnerability for herding communities in the OPT, therefore all actors seeking to support rangeland management must first and foremost commit to challenging the occupation through their interventions.

In order to ensure better rangeland management, secure livelihoods for Bedouin and herder communities, and increase food security in the OPT and economic independence of the Palestinian market, interventions must be strategically linked, take rangeland management needs into account, and capitalize on the opportunities for development that can be achieved despite the Israeli occupation. They must also focus on future sustainability of the sector, while capitalizing on the benefits it can provide in the short and long term. There are four main factors that need to be taken into account in future planning and programmes for rangeland rehabilitation and development of the livestock sector:

- **Development approach:** linking humanitarian work to development, in order to build resilience of Bedouin and herding communities and ensure that projects targeting these communities strengthen their social and economic resilience and not only deliver aid. The end goal of this development approach is to ensure that the human rights of Palestinian Bedouins are fully respected and realized. While ending the occupation and enabling full access to land and water resources and ensuring grazing mobility is a top priority, incentivizing communities to work towards better rangeland management, improving water resources and increasing the technical knowledge available for the selection of appropriate rangelands are within the power of the Palestinian Authority and can be beneficial even within the given constraints of occupation. This would ensure the maximum benefit would be derived from the potential of the livestock sector.

- **Participatory capacity-building:** Bedouin and herder communities must be engaged in the policy cycle developing and strengthening rangeland development and preservation, both as the holders of the traditional knowledge and as the direct beneficiaries of these

activities. Strengthening the capacity of local organizations will lead to better rangeland management. A central component in this capacity-building is the strengthening of the social fabric of communities, the improvement of the services they receive, and their ensured representation in national and international consultations and dialogue. The full inclusion of women and youth in the consultation process and in rangeland management, including securing land tenure, is vital.

- **Coordination:** Palestinian governmental institutions, local non-governmental, and international institutions must increase coordination in order to develop a holistic approach that promotes rangeland development and preservation, initiating projects that will promote awareness, provide technical support and secure the necessary buy-in from communities. All projects that could have impact on rangeland activities must take this into consideration, requiring a broad development approach that is not only focused on the outputs of each limited project and promoting close coordination between sectors. The emergence of an even stronger Palestinian livestock sector requires taking into account the needs and context both in the West Bank and in the Gaza Strip and developing cohesive policies.

- **Policy development:** despite the political challenges, regulation to secure communal management of rangeland that enables efficiency and supports the continued operation of small-scale producers is vital to the preservation and further development of the livestock sector. Developing comprehensive policies to improve rangeland management by the PA and the Ministry of Agriculture is crucial for its ability to lead in the process. These policies could be informed by practices in neighbouring countries, if research proves that they can be adopted to the local context and restraints. The policy changes must also include promoting regulations for access to markets, standardization of products and supports to promote trade. In terms of gender justice, the policies can encourage the full participation of Bedouin and herder women in the economic activities of their communities and the integration of youth. The PA and local civil society must work together to promote this participatory process of policy change.





85% OF **GRAZING LAND** IN AREA C AND 35% OF AGRICULTURAL LAND IN THE GAZA STRIP ARE **INACCESSIBLE**.



**PLOTS** ARE SO SMALL THEY ARE **UNSUSTAINABLE**, WITH 30% AND 55% OF AGRICULTURAL PLOTS IN THE WEST BANK AND GAZA STRIP RESPECTIVELY LESS THAN 0.3 HECTARES



**RAPID URBANIZATION** DUE TO A 3% GROWTH RATE AND **LIMITED ACCESS** TO LAND FOR DEVELOPMENT.



DEPENDENCY ON PURCHASED FEED HAS **INCREASED** AND THE **COST OF FODDER** NOW ACCOUNTS FOR 70% OF PRODUCTION PRICE.



