
RESILIENCE IN THE WEST BANK

Impact evaluation of the 'From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territory' project

Effectiveness Review Series 2018/19



Photo: Khaleel is a dairy farmer who has received support from Oxfam and the community cooperative, in the E1 area. Credit: Kieran Doherty/Oxfam

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EXECUTIVE SUMMARY

Oxfam GB's Global Performance Framework is part of the organization's effort to better understand and communicate its effectiveness, as well as enhance learning across the organization. Under this framework, a small number of completed or mature projects are selected each year for an evaluation of their impact, known as an 'Effectiveness Review'.

During the 2018/19 financial year, one of the projects selected for an Effectiveness Review was 'From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territories'. This project was carried out in the West Bank, in the Occupied Palestinian Territory, between November 2015 and January 2018 by Oxfam, together with two partners: the Land Research Centre (LRC) and the Palestinian Livestock Development Centre (PLDC).

The Bedouin people, historically pastoral and nomadic, lived in the Negev area at the creation of the state of Israel. The Jahalin Bedouin has since been displaced to the West Bank, around the illegal Israeli settlement of Ma'ale Adumim, and the Jordan Valley, and since 1967 has lived under the Israeli occupation. Following the Oslo II Agreement in 1995, the West Bank was divided into three different areas, A, B and C. The government of Israel maintains full military and civil control over Area C. In Area C, and close to East Jerusalem, the E1 area is home to Bedouin communities who are under threat of displacement because of Israeli plans for construction in the area. Bedouin communities in Area C, and in E1 in particular, have been under attack and threat of displacement for years. One way the threat materializes is through the continued issuance of evacuation, stop-work or demolition orders against specific constructions or areas, such as rangelands, issued by the Israel Defence Force and Israel Civil Administration (ICA), some of which leads to actual demolition and displacement (see OCHA (2016)).

This project was funded by the Belgian Cooperation, through Oxfam Italy. Acknowledging that Bedouin communities are facing an enduring and structural emergency that gradually deteriorates their livelihoods, the project aimed to manage the humanitarian emergency in these communities and build different protection mechanisms as a way to build resilience. In particular, the focus was placed on improving access to veterinary services, creating, or supporting the strengthening of, legal protection (sub-)committees, and rehabilitating protected rangeland. This last component was particularly challenging because of an eviction order having been issued by the ICA against some of the rehabilitated protected rangelands (287 dunums). The combination of these components is the focus of this review. A fourth component consisted of engaging key international stakeholders in challenging Israeli policies that are in violation of international humanitarian law. This joint effort around specific cases will fall outside the scope of this review.

EVALUATION APPROACH

The Effectiveness Review, for which the fieldwork was carried out in November and December 2018, aimed to evaluate the success of the project in building resilience capacities. A quasi-experimental impact evaluation design was used to measure the effect that is causally attributable to – and representative of – the project's cross-sectoral intervention. The evaluation design relied on comparing community members of the communities involved in the project with members of Bedouin communities from nearby areas who are thought to have had similar characteristics to the communities that participated in the project before the project was carried out. Thus 19 comparable Bedouin communities at similar 'risk of forced displacement due to a relocation plan advanced by the Israeli authorities in recent years', according to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), were identified and took part in the survey.

In both intervention and comparison communities, all households were asked to take part in the survey, if they so wished. Within each household, the survey protocol focused on interviewing the household head or spouse(s) and we introduced variation as per whether a man or a woman was interviewed within each household. The survey was composed of an individual module and a household one. In total 683 surveys were carried out in 30 communities, 268 in the intervention group and 415 in the comparison group. Half the respondents were women, and half men. Community leaders were also interviewed using a short community-level questionnaire.

To provide additional confidence when estimating the project's impact, the statistical tools of propensity-score matching and multivariate regression were used at the analysis stage to control for demographic and baseline differences between the households and individuals surveyed in the intervention and comparison communities.

Resilience was assessed through examining 26 characteristics that are thought to be associated with the capacities to absorb, adapt or transform. A list of the resilience indicators, their distribution per capacity, and a breakdown of the results for each is shown in Table 1. Multi-dimensional indices of resilience and of resilience capacities were developed at the individual level, taking into account household-level characteristics, individual-level characteristics and intra-household dynamics (through involvement of different individuals in decision-making processes and access to resources).

RESULTS

The review investigated the impact of community-, household- and individual-level activities on the resilience capacities of women and men. While the review draws from Oxfam's framework for resilient development, and in particular *The Future is a Choice* (Jeans *et al.*, 2016) and the *Gender Justice in Resilience* guidelines (Sotelo Reyes, 2017), the project was developed before the publication of these frameworks, and its design focuses on improving protection around three key areas at community level: supporting animal health, rehabilitating protected rangelands and strengthening community-based legal protection mechanisms. The review investigates the impact of this cross-sectorial approach.

Supporting animal health: gendered participation in activities, limited impact on access to veterinary services and impact on sheep vaccination rates

As a result of the project, in the last three years more men have received training or information on animal health (up from 6 to 12 percent, difference significant at 10 percent). This is not the case among women. While we observed no impact of the project among women respondents on knowledge of animal health, we consistently observed a positive impact among men respondents. This reflects the gender norms in Bedouin society at the time of the review: men are considered responsible for livestock and livestock health expenditure, and women's mobility and participation in community events organized by external actors are restricted, which led to men being the voluntary participants of veterinary training in the setting of this project. Specific strategies would have to have been deployed to involve women in such training, and that would require a better understanding of gender roles in livestock care.

Overall, in the intervention group in 2017 and in 2018, a year after the end of the project, almost two thirds of the respondents had livestock, and slightly more than half had access to veterinary services for their animals. According to men respondents, the project improved the share of respondents having access to veterinary services in 2017 significantly. Access to veterinary services in 2018 was not impacted by the project. At the time of the survey rates of vaccination were high in both groups, and we measured a significant impact of the project on vaccination for sheep only (vaccinated in the last 12 months). Note that the

project focused on three vaccines, and the review did not go into the details of the different vaccines. However, sustained vaccination behaviours are critical for vaccines to have a long-term impact.

Rehabilitation of protected rangelands: a challenging implementation

The land rehabilitation component of the project, which focused on a few communities, was challenging: while the project led to the rehabilitation of a total of 432 dunums of protected rangeland, the Israeli Civil Administration issued an eviction order against 287 dunums, and the protected rangeland of one community had to be unfenced as a result. We did not measure significant impact of the project on home-production of fodder or on usage of water harvesting for animals or access to grazing areas.

Strengthening community-based legal protection mechanisms: low and selected participation and negative impact on knowledge of rights

As a result of the project, respondents are significantly more aware of the existence of protection committees or sub-committees, and more likely to participate in such sub-committees. These effects are stronger for men than for women. Note that overall, and on average, the share of respondents participating in such (sub-)committees is low – 11 percent. These effects are driven by two communities in which the protection committees were formalized as part of this project, these two communities are also facing a particularly strong threat of displacement. In December 2017, some community members were invited to participate in training on their rights and legal procedures, and the project team paid specific attention to inviting women. The project was successful in improving access to training, or to information on rights, or ways to document land usage among men, but not among women. In the intervention group, the respondents who recalled having participated in such training were more likely to be already involved in community groups in 2015. Both the impact result among women and the characteristics of those who recalled accessing training or information raise questions around the targeting of this activity, bearing in mind the project resource constraints. Moving forward, how could the participation of community members who are not already involved in community institutions be facilitated? And in a setting where gender norms constrain women's participation in public meetings, how could their participation be facilitated?

The project did not have a measurable impact on the knowledge of legal procedures. Men tend to have a better knowledge of both legal procedures and their rights than women. The project seems to have had a negative effect on knowledge of their rights, for both women and men. This effect is reduced when excluding two specific communities facing a particularly high threat of demolition and displacement (the project supported these communities through the creation of community protection committees). Hence, one hypothesis is that in spite of information and training received a year ago by a group of community members about international law, rights and documentation of land usage to protect their rights, the daily pressure and threat experienced by the people in the E1 area, compared to other communities at risk of displacement, seems to affect their belief in their rights and Israel's rights.

Building resilience: no significant impact on resilience capacities overall

Overall, there is no evidence of the project having had a significant impact on resilience, assessed through a multi-dimensional index reflecting the three capacities of resilience. We measured an impact of the project on transformative capacity (significant at 5 percent), driven by a change in belief in collective action's effectiveness. Note that women score significantly lower than men on the resilience indices (the overall resilience index and each capacity index).

On the absorptive capacity, while there is no clear evidence of impact, the project seems to have had an impact on a few indicators. Indeed, a greater proportion of intervention respondents had confidence that the community would be able to protect itself in the case of a demolition or stop-work order being issued. However, as mentioned above, we observed a negative impact on respondents' knowledge of their rights as Bedouin living in the West Bank. In addition, we observed an impact on one characteristic that is not related to the project logic. We measured a significant impact of the project on social support networks, with a greater proportion of respondents in the intervention areas reporting either giving or receiving financial support from other households in the community at least twice during the previous 12 months than in the comparison areas. Such impact was not anticipated. There is no clear evidence of the project building access to improved water sources, which were available all year round (and intervention and comparison groups were very different in terms of access to piped water on premises in 2015). There is no clear evidence of the project building access to remittances (which is also a characteristic of adaptive capacity). No measurable impacts were observed on livestock vaccination, income diversification, access to drinking water, access to agricultural or grazing land (also considered an indicator of transformative capacity), knowledge of legal procedures, and knowledge of animal health.

As mentioned above, there is no evidence of the project building adaptive capacity, or individual characteristics of adaptive capacity: ownership of fungible livestock, productive asset ownership, access to improved sources of water for cultivation or livestock, dietary diversity, control over the decision to sell livestock, availability of food, and attitude towards change. However, among women, we observed an impact on 'understanding of climate change', which was not anticipated as part of the project logic.

The overall impact on transformative capacity is driven by a significant impact of the project on belief in collective action's effectiveness, observed among both women and men respondents. While there is no evidence of impact of the project on women's participation in community groups, a significant and positive impact is observed among men. On the contrary, we observed a positive impact of the project among women on the political role of women. Such impact was not anticipated as part of the project logic. There is no clear evidence of the project having an impact on education of children. In addition, there were no significant differences detected between the intervention and comparison groups on the other characteristics of transformative capacity: ability to take decisions for one's own movement and participation in community activities, control over income from activities one participates in, and opinion on the acceptability of violence inside the household.

Relationship between Oxfam, partners and project participants: involvement throughout the project cycle, feedback and confidentiality

Finally, this review was also an opportunity for community leaders and survey participants to share feedback. While the former was formalized through a community form, the latter was informal, and shared with the survey team. Looking forward, community leaders highlighted the need for electricity and water services. In hindsight, however, feedback from community members stressed the lack of clarity on the project design and implementation, including on the prioritization and choices made because of resource constraints, while having high expectations because of participatory needs assessments and the high threat level and needs faced. Feedback also stressed a lack of clarity on the channels available to contact Oxfam staff. Finally, confidentiality of the data shared throughout the project, from needs assessment to this review, was a concern of respondents because of security reasons. Hence another key result of this Effectiveness Review is the need for Oxfam to review its ways of working with Bedouin community members in the West Bank. From a resilience perspective in particular, working with community members in ways that are empowering is indeed critical in order to move from dependencies to capacities.

Table 1: Indicators of resilience examined in this Effectiveness Review

Capacity	Connected to the project logic?	Characteristic	Evidence of positive impact?
Absorptive capacity	Yes	Knowledge of rights as a Bedouin living in the West Bank	Negative impact
	Yes	Knowledge of legal procedures, documents required for the objection to military orders	No
	Yes	Animal health knowledge	No
	Yes	Cattle vaccination	No
	No	Diversification of income sources – off-farm activities and government or social benefits	No
	No	Access to drinking water	No
	No	Social support network	Yes
	Yes	The household is not relying on livestock sales in case of urgent expenses	No
	Yes	Confidence that the community/mukhtar will be able to protect itself in the case of a demolition/stop-work order being issued	Yes
		Remittances	No clear evidence
	Yes	Ownership of fungible livestock	No
	Yes	Productive assets ownership	No
	No	Understanding of climate change	No
	No	Attitude towards change	No
	Adaptive capacity	Yes	(Improved) access to water for food or fodder production or animal
No		Control over decision to sell livestock heads	No
No		Dietary diversity	No
No		Availability of food without concern	No
Yes		Participation in community groups	No
No		Control over income from livestock sales and livestock produce, and off-farm economic activities (petty trading, processing)	No
No		Belief in collective action's effectiveness	Yes
Transformative capacity	No	Opinion on women's political role	No
	No	Opinion on acceptability of violence inside the household	No
	No	Education of children	No clear evidence
	No	Ability to decide for one's own movement and participation in community activities	No
	Yes	Access to agricultural or grazing land	No

PROGRAMME LEARNING CONSIDERATIONS

Place the understanding of gender norms and roles and power analysis at the core of programme design and implementation

Gender norms constrain the roles, responsibilities and opportunities of women and men, of different age, among the Bedouin people living in the West Bank. The data gathered through this review show strong gender differences within the household around decisions to sell livestock, or decisions for oneself to travel or participate in groups. It also shows gender differences when it comes to access to information related to reception of legal support or knowledge of rights and legal procedures in the absence of the intervention. In addition, the project significantly fostered participation in training or sensitization of men (animal health prevention training or rights and land usage documentation training), but not of women. The project had a stronger impact among men than among women on participation in protection (sub-)committees. Some of the results in the review also show that when participation was voluntary, people who were already involved in community groups in the past were more likely to participate than those who were not. This highlights the need to place gender and power analysis at the heart of the development of the most appropriate mechanisms to foster participation of women, and of women in different positions of power within the community in particular, as well as of community members who are further away from community institutions or more marginalized.

More generally, transforming gender relations to bring about similar opportunities to women and men will enable the resilience of the full system. This will require changing gender norms. Specific attention to these norms at programme design and throughout implementation is needed to develop appropriate activities.

Develop a context-specific understanding of the three capacities of resilience as a means to adopt a more holistic approach to resilience building

Structural and recurring constraints leave Bedouin community members living in the E1 area in a state of constant coping, and thus projects have focused on immediate response and support to different coping mechanisms. This project tried to go further, through a cross-sectorial protection approach. Oxfam's resilience framework puts emphasis on the building of absorptive, adaptive and transformative capacities but was published after this project started. This review brought this framing and reconstructed a posteriori an imperfect understanding of what the three capacities mean.

Understanding what the three capacities of resilience mean in the context of Area C of the West Bank, and among the Bedouin people – marginalized within Palestinian society and at particular risk of displacement – would contribute to developing more holistic resilience programmes. In particular, what is the space available for adaptation and transformation in this setting, and what is Oxfam and partners' role in enabling or supporting it?

Developing an understanding of the capacities and opportunities for adaptation and transformation in this setting will not only enable developing strategies to bring about resilience, but also enable the monitoring and evaluation framework to be centred on the three capacities of resilience and how the project contributes to their enhancement.

Consider strengthening accountability and feedback mechanisms

Acknowledging people's agency and building equal relationships is core to bringing about resilience. Strengthening the involvement and participation of community members (beyond community leaders in particular) at programme design and throughout the programme development and implementation is one aspect of it. In particular, feedback mechanisms could be developed and integrated into programme implementation and monitoring and evaluation systems to enable communication channels and response to feedback.

1 INTRODUCTION

The Bedouin people, historically pastoral and nomadic, lived in the Negev area at the creation of the state of Israel. The Jahalin Bedouin has since been displaced to the West Bank, around the illegal Israeli settlement of Ma'ale Adumim and the Jordan Valley, and since 1967 has lived under the Israeli occupation. Since the Oslo II Agreement in 1995, the West Bank has been divided into three areas, A, B and C. The government of Israel maintains full military and civil control over Area C. The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) highlighted in the report "*Under Threat: Demolition orders in Area C of the West Bank*" that *'The planning and zoning regime applied by the Israeli authorities, including the ways in which public land is allocated, makes it virtually impossible for Palestinians to obtain building permits in most of Area C. (...) Structures built without permits are regularly served with demolition orders. While only a minority of the orders issued are executed, these orders do not expire and leave affected households in a state of chronic uncertainty and threat. Where the orders are implemented, they have resulted in displacement and disruption of livelihoods, the entrenchment of poverty and increased aid dependency.'*¹

Within Area C and close to East Jerusalem, the E1 area is home to Bedouin communities under threat of displacement due to Israeli plans for construction.² Bedouin communities in Area C, and in the E1 area in particular, have been under attack and threat of displacement for years. In August 2015, the OCHA wrote in its monthly report that *'The West Bank also witnessed a significant escalation in the Israeli authorities' demolition of Palestinian structures in Area C on the grounds of lack of building permits. On 17 August alone, 22 structures were demolished in four Bedouin communities in the Jerusalem periphery, displacing 78 Palestinians, including 49 children. This was the largest displacement in a single day in almost three years. These residents are part of the 46 communities in the central West Bank at risk of forcible transfer due to a "relocation" plan advanced by the Israeli authorities. If implemented, this plan would amount to forcible transfer and forced eviction, contravening Israel's obligations as an occupying power under humanitarian law and human rights law.'*³ And in its September 2015 report: *'August also witnessed the highest number of Palestinian structures demolished by the Israeli authorities in the West Bank (including East Jerusalem) in a single month in five years: 145 structures in 37 communities. Over 200 people were displaced, with six Bedouin communities in Jerusalem periphery accounting for close to 70 per cent of those displaced. These communities are among 46 communities identified as at heightened risk of forcible transfer due to a "relocation" plan advanced by the Israeli authorities.'*⁴ In January 2016, the Human Rights Council of the United Nation reported on the "'relocation" of some 46 Palestinian Bedouin communities in the Jerusalem periphery. These plans foresee the removal of Palestinian communities in and around strategic areas earmarked for Israeli settlement infrastructure throughout the central part of the West Bank, including the planned E1 settlement project. The project has long been opposed by the international community as an obstacle to the realization of the two State solution.⁵

In this setting, Oxfam started a project called 'From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territory' in November 2015, working with Bedouin communities in the E1 area. The project was implemented in partnership with Land Research Centre (LRC) and the Palestinian Livestock Development Centre (PLDC). The project was funded by the Belgian Cooperation, through Oxfam Italy. Acknowledging that Bedouin communities are facing an enduring and structural emergency that gradually deteriorates their livelihoods, the project aimed to manage the humanitarian emergency in these communities and build different protection mechanisms as a way to build resilience. In particular, the focus was placed on improving access to veterinary services, creating or supporting the strengthening of legal protection (sub-)committees

and rehabilitation of protected rangeland. This last component was particularly challenging (see Section 2). The combination of these components will be the focus of this review. A fourth component consisted of engaging key international stakeholders to challenge Israeli policies that are in violation of international humanitarian law. This joint effort around specific cases falls out of the scope of this review.

Figure 1.1: Map of the governorates of the Palestinian Territory



Credit: Shapefiles made available by OCHA⁶

The project lasted until January 2018. The threat of displacement, demolition and different forms of harassment and violence from the Israeli Army or the settlers was ongoing throughout the lifespan of the project and this review. In February 2016, demolition of homes and livelihood-related structures took place, and demolition of schools has taken place since.⁷ Demolition, stop-work and other military orders have been issued in different communities. In December 2018, the OCHA reported an intensification of settler violence and vandalism in the West Bank,⁸ 'with a weekly average of five attacks resulting in injuries or property damage, compared with an average of three in 2017 and two in 2016.'

Oxfam GB's Global Performance Framework is part of the organization's effort to better understand and communicate its effectiveness, as well as enhance learning across the organization. Under this framework, a small number of completed or mature projects are selected each year for an evaluation of their impact, known as an 'Effectiveness Review'. During the 2018/19 financial year, the 'From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territory' project was selected in the thematic area of resilience. This evaluation took place in November and December 2018, almost a year after the end of the project.

This Effectiveness Review will thus explore the impact of the project on the three capacities of resilience at the individual level a year after the end of the project: did the project, when combining different protection mechanisms, build absorptive, adaptive and transformative capacities of community members? Were resilience capacities built differently for women and men as a result of the project?

In particular, we will explore the added-value of the project accounting for the fact that other vaccination campaigns for other Oxfam projects have been ongoing in 2016 and October–November 2018. Because this review took place a year after the project activities ended, it explores the sustainability of the changes in behaviour (and vaccination behaviour in particular, as vaccination needs to be repeated across years). We also focus on people who have been living in the area since 2015.

2 PROJECT DESCRIPTION

Historically the Bedouins are nomadic pastoralists. The displacement of the Jahalin Bedouin to the West Bank and the West Bank's occupation in 1967 has since imposed restrictions on their traditional lifestyle. The project under review was developed around the identification of key threats for the Bedouin communities living in the E1 area, against which it aims to build protection and, ultimately, resilience. These threats are: the physical violence or the threat of physical violence by the Israel Army or settlers in the West Bank; the forced displacement or threat of forced displacement, and finally the deliberate deprivation due to destruction of civilian crops, homes and other buildings and threat of demolition. A fourth threat is deliberate deprivation due to denied access to natural resources (grazing areas, water, etc.) and livelihoods. In particular, the Israel Defence Force and Israel Civil Administration (ICA) issue evacuation, stop-work or demolition orders against specific constructions or areas, such as rangelands, which creates a constant state of uncertainty and threat (see OCHA (2016)⁹).

2.1 PROJECT ACTIVITIES

The project activities were articulated around four areas:

1. Improvement of animal health (veterinary services) and infrastructure (shelters or solar panels) related to herding activities.
2. Rehabilitation of protected rangelands and rangeland management.
3. Establishment and strengthening of community-based protection mechanisms.
4. Engagement of key international stakeholders to challenge Israeli policies that are in violation of international humanitarian law.

Firstly, veterinary services were offered – for a small fee – by two veterinarians from the Palestinian Livestock Development Centre (PLDC) forming two mobile clinics and visiting communities to conduct sensitization on animal health practices (leaflets were distributed on Q fever and general prevention practices), to examine the livestock (and take further action if needed, including blood laboratory analyses conducted by PLDC) and to conduct a vaccination campaign (Enterotoxaemia, Mycoplasma and Chlamydia). In the West Bank and the Gaza Strip, veterinary services are provided by the Public Sector (Ministry of Agriculture, 2015),¹⁰ and private providers also exist. PLDC mobile units were formed in collaboration with the Ministry of Agriculture. The vaccines on which the project focused were identified according to public health priority in coordination with the Ministry of Agriculture, taking into account the campaigns already planned and which vaccines were available in the Palestinian market. Note that staff and partners highlighted that PLDC veterinarians were instrumental in facilitating the whole project implementation as they built a good relationship with community members. As part of the focus on animal health within the project, animal shelters were also rehabilitated, and solar panels were installed in some communities (see Table 2.1 and Section 2.3). All these activities focused on supporting what is traditionally the main source of income of the Bedouin communities, raising goat and sheep in particular.

Secondly, the project activities included rangeland rehabilitation or protection, and rangeland and water management. The Palestinian Ministry of Agriculture highlights in its Livestock Sector Strategy for 2015–2019 that *'in the [West Bank and Gaza Strip] WBGS, there are 2.02 million dunums of existing rangelands. However, 1,399,000 dunums (69.3%) of this rangeland is closed to Palestinians as a result of Israeli settlements, military zones and Separation Barrier. Only 621,000 dunums (30.7%) are accessible to Palestinians for the grazing of ruminants (i.e., sheep and goats)'* (Ministry of Agriculture, 2015, p. 9). The

rangeland rehabilitation activities were introduced as a way to support herding activities with access to fodder for livestock (land preparation and seedling distribution) and access to water. The water management component focused on the construction or rehabilitation of cisterns and the supply of mobile water tanks in some communities, and the LRC also conducted a study to map the land cover and identify adequate water harvesting mechanisms in the rehabilitated rangelands. Based on this, training was delivered to community members and the water harvesting mechanism was then implemented on the rangelands. While the rehabilitation of protected rangeland could be thought of as a way to mitigate the threat of displacement through land-use documentation, this component has been particularly challenging and hard to sustain. In particular, while the project led to the rehabilitation of a total of 432 dunums of protected rangeland, the Israeli Civil Administration issued an eviction order against 287 dunums, and the protected rangeland of one community had to be unfenced as a result.

Thirdly, protection committees and sub-committees were supported or created, and in December 2017 and January 2018 training on rights and the legal procedures and documents required for the objection to stop-work/demolition orders were organized with community members, women in particular, and committee or sub-committee members were invited. Training with the authorities at municipality level was also undertaken. In addition, legal files were prepared in response to stop-work or demolition orders to document usage/ownership of the land. Note that the project did not deliver direct legal assistance (which agencies like the Norwegian Refugee Council (NRC) are known to do in the area, otherwise people have to rely on private lawyers, which can be expensive, as was mentioned by a community leader in the preparatory work of this review). The project team referred two cases for legal assistance.

Not all activities were implemented in each community and Table 2.1 gives a description of the activities undertaken at community level. Coordination between activities around land rehabilitation and protection mechanisms was critical as the former requires legal knowledge and documentation.

Table 2.1: Re-partition of sets of activities per community

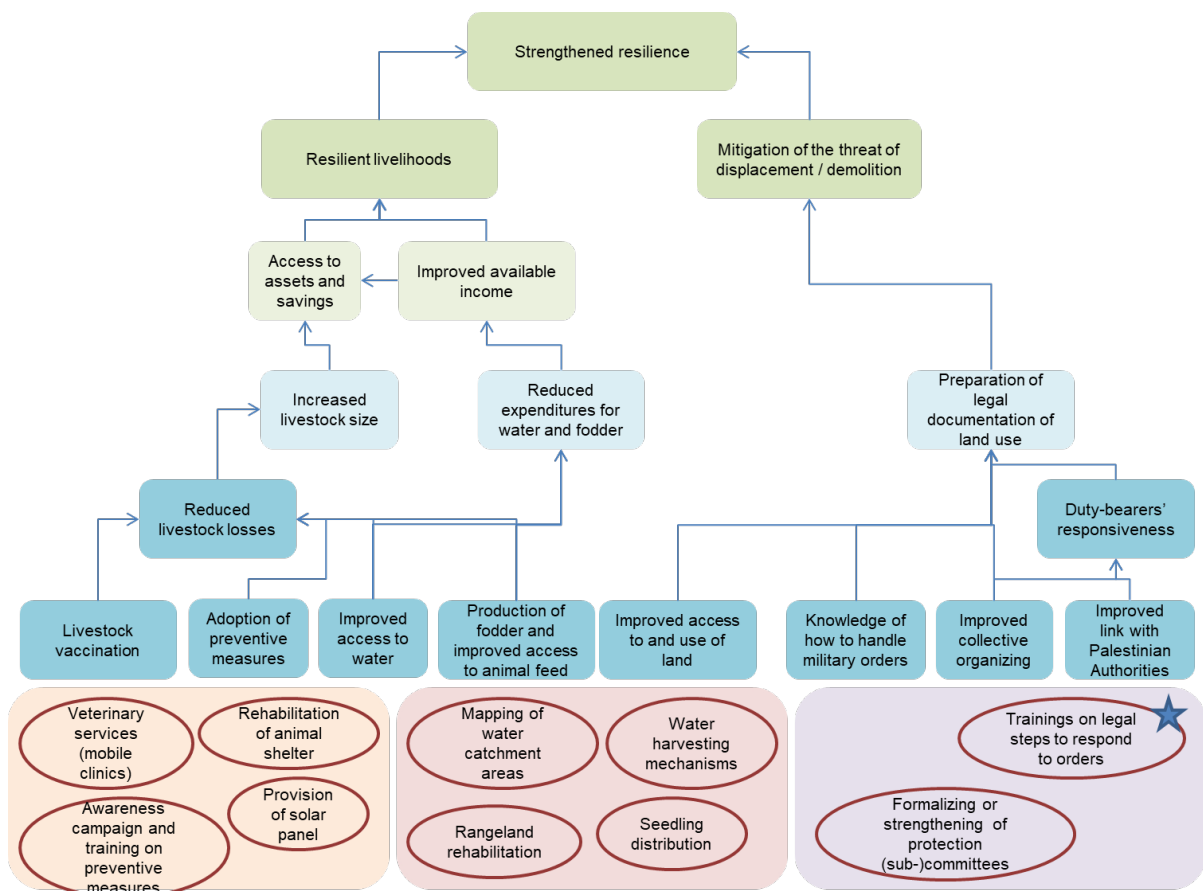
Number of sets of activities	Sets of activities	Number of communities
1	Veterinary services only	9
2	Veterinary services, rehabilitation of animal shelter	6
3	Veterinary services, rehabilitation of animal shelter, solar panel	1
5	Veterinary services, rehabilitation of animal shelter, strengthening of protection mechanisms, and/or rehabilitation of cisterns and/or rangelands	4
6	Veterinary services, rehabilitation of animal shelter, strengthening of protection mechanisms, rehabilitation of cisterns, and/or land cover map and watershed study and/or mobile water tank and/or rehabilitation of rangelands	3

8	Veterinary services, rehabilitation of animal shelter, strengthening of protection mechanisms, rehabilitation of rangelands and cisterns, land cover map and watershed study	1
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The E1 area in Area C has received continuous support and attention from the international community and different humanitarian agencies in the last decades because of the strength and seriousness of the threat and the pressure the people living in this area are under. The fourth area of activities implemented in this project reflects the need to coordinate with other activities to advocate and support the Bedouin communities against the threat of displacement. The project focused on a few communities in particular, depending on the level of threat these faced, in coordination with other agencies (see Section 3.2.1 on the focus of this evaluation).

2.2 PROJECT LOGIC AND EXPECTED OUTCOMES

Figure 2.1 presents the theory of change of the project, reconstructed at the time of this review. The diagram focuses on the first three areas of activities presented in Section 2.1. The engagement of key international stakeholders to challenge Israeli policies that are in violation of the international humanitarian law is not reflected on the diagram but was thought as a strategy to mitigate the threat of displacement and demolition.



The project's logic was developed in response to the identification of threats faced by Bedouin people in the E1 area. One assumption behind the project's logic is that increased

livestock herd size across the years, as well as reduced expenditure related to water and fodder, would contribute to building the resilience capacities of the whole household and its members.

On the other hand, the project hypothesized that involvement of community-level committees or sub-committees and community members in the legal protection component would lead to mitigation of the threat of displacement or demolition at individual, household and community level. The project team identified in particular that Bedouin women in the E1 were barely involved in decision-making and had little knowledge of the documentation process needed to appeal military orders. In particular, when evacuation, stop-work or demolition orders are issued – in the form of a letter – against a structure or an area close to the homestead, women are likely to be the one receiving or discovering the order, as they are more likely to be at home. For this reason, awareness-raising training on legal steps to respond to orders was mainly targeted at women (marked by blue star in Figure 2.1). Bedouin societies in the occupied Palestinian Territory and Israel are indeed patriarchal organizations in which women’s mobility is controlled by men, and by the community of men, and in which the division of responsibilities is made along gender lines.¹¹

The review will help to test these assumptions by exploring the average impact of the project among women and men on different household- and individual-level outcomes, and on resilience capacities at the individual level, taking into account both household and individual characteristics (see Section 5). Important to highlight is that the project was not developed using Oxfam’s framework for resilient development, *The Future is a Choice* (Jeans *et al.*, 2016).

2.3 SELECTION OF PROJECT SITES AND PARTICIPANTS

Oxfam worked in the E1 area prior to this project, while partners started working here through this project and other similar projects ongoing in the area since 2014. LRC was involved in a one-year project that commenced in November 2015 called *Integrated Protection in Area C: Enhancing the Resilience of Communities to Violations of International Humanitarian and Human Rights Law*, funded by the Belgian Cooperation, which took place in several parts of Area C. PLDC was a partner of *AMAD – From Water to Markets: a big challenge for small scale breeders and dairy producer women groups in West Bank*, a project funded by the Italian Cooperation between June 2014 and August 2017.

Within the E1 area, the most at-risk communities were chosen for the focus of the project under review, particularly ones in which committees or sub-committees were created and protection/legal filing training and support were implemented (a subset of eight communities with strengthening of protection mechanisms activities in Table 2.1). Protection committees were formalized in two communities at particularly high risk and the project supported the overall E1 protection committee (made of the community leaders of all Bedouin communities in the E1 area). Note that these two communities have indeed faced direct threat of displacement since the project started:

- One community received a military order that declared part of the land as a ‘Restricted Area’ in November 2017 (project documentation and final evaluation report by ARCO).
- The second community has faced demolition of homes, classrooms and solar panels by the Israeli Forces since 2016.¹²

The rehabilitation of cisterns and rangelands was targeted at communities where there were cisterns and rangeland in proximity in the first place. The distribution of solar panels was undertaken in only one community. The choice was made to target a community in which enough budget was available for all households in the community to benefit from

solar panels. As other actors in the area were also installing solar panels, this choice was coordinated to avoid duplication of effort across agencies.

This project took place in 24 Bedouin communities. All 24 communities received veterinary services, and the project team estimated that a total of 588 persons directly received support for their livestock's health. As part of the veterinary service, laboratory analyses were sometimes conducted, and special care was given to some specific livestock based on these analyses.

Participation in protection committees or sub-committees was voluntary (but at the very least the community leader participated in the protection committee in the two communities in which such committees were organized). Similarly, participation of women in protection training was also intended to be voluntary. However, because of the social norms around women's participation in public meetings and the control of their freedom of movement by men in the community, the involvement of women required that the project team first agreed with community leaders who in the community to involve.

3 EVALUATION DESIGN

3.1 QUASI-EXPERIMENTAL APPROACH

The central problem in evaluating the impact of any project or programme is how to compare the outcomes that result from that project with *what would have been the case* had that project not been carried out. In the case of this Effectiveness Review, information about the lives, perception and livelihoods of community members was collected through household and individual questionnaires – but clearly it was not possible to observe what their situation would have been had they not had the opportunity to participate in this project. In any evaluation, that ‘counterfactual’ situation cannot be directly observed: it can only be estimated.

In the evaluation of programmes that involve a large number of units (whether individuals, households or communities), it is possible to make a comparison between units that were subject to the programme and those that were not. As long as the two groups are similar in all respects except for the implementation of the specific project, observing the situation of those where the project was not implemented can provide a good estimate of the counterfactual. It is important to take note of these two terms, *intervention* and *comparison*, since they are used frequently in this report. The intervention group is made of surveyed project community members; the comparison group is made of surveyed community members from communities where the project is not ongoing (and never was). In quasi-experimental impact evaluations, the comparison group is chosen to be as similar as possible to the intervention group at the onset of the project so that it provides a good estimate of what would have happened to the participants in the absence of the project, that is to say the counterfactual situation.¹³

In the case of the project examined in this Effectiveness Review, the selection of the communities involved in the project was not made at random; in fact, communities were deliberately chosen among Bedouin communities in the E1 area at risk of displacement and under threat from the Israeli Army. Specific activities were also targeted to specific communities – see Section 2.3. Based on desk research and information from and discussions with partners and Oxfam staff, we identified comparison communities. One specific challenge we faced in this process was that other activities related to the project’s theory of change were carried out in the area by Oxfam, partners or similar organizations, both in some of the project communities and in potential comparison communities. To focus on the added value of the project under review, we tried to balance the presence of such activities in both comparison and intervention communities. This process is detailed in Section 3.2.1.

To improve the confidence in making this comparison, households and individuals in the project communities were ‘matched’ with households and individuals with similar characteristics in the non-project (or ‘comparison’) communities. Matching was performed on the basis of a variety of characteristics – including household size at onset of the project and history of the household (previous experience of demolition and past migration to the community), the respondent’s characteristics (gender and participation in community groups in 2015), indicators of material well-being and income generating activities that household members were part of (detailed in Appendix 3).

Since some of these characteristics may have been affected by the project itself, matching was performed on the basis of these indicators *before* the implementation of the project. Baseline data were not available, so survey respondents were asked to recall some basic information about their household’s and their own situation during the year 2015. While this

recall data is unlikely to be completely accurate, it is the best-available proxy for households' and individuals' pre-project situation.

Recall survey data provided a variety of baseline household and individual characteristics on which matching could be carried out. These characteristics were used to calculate a 'propensity score', which is the conditional probability of the household or individual being a project participant, given the set of observable characteristics on the baseline. Individuals in project communities and individuals in comparison communities were then matched based on their having propensity scores within certain ranges. Appendix 3 presents a more extensive explanation of the matching procedure and tests carried out after matching to assess whether baseline characteristics are similar between the two groups.

Several checks on the results derived from the propensity-score matching process were conducted using multivariate regression models or alternative propensity-score matching processes (on sub-sets of communities). These are presented in Appendix 4.

It should be noted that both propensity-score matching and multivariate regression rely on the assumption that the 'observed' characteristics (those that are collected in the survey and controlled for in the analysis) capture all of the relevant differences between the two groups. If there are 'unobserved' differences between the groups that matter for project participation, then estimates of outcomes derived from them may be misleading. Unobserved differences between the groups could potentially include differences in attitudes or motivation (particularly important when individuals have taken the initiative to participate in a specific project activities), differences in community leadership, or community-level differences in contextual conditions faced by households, such as risks of conflicts. The choice of intervention and comparison communities in which to carry out the survey or this Effectiveness Review was made principally to minimize the potential for any such unobservable differences to bias the results, but the possibility of unobserved bias cannot be ruled out.

3.2 SAMPLING APPROACH

The sampling approach of this review was key from two different standpoints:

1. To maximize comparability of the intervention and comparison communities at the onset of the project.
2. To ensure representation of women and men within the household and enable for systematic analysis on outcomes at the household and individual levels, for different social groups in different positions of power.

The strategy is presented in this section.

3.2.1 Sampling of communities

The project under review was implemented in 24 communities in the E1 area (see Section 2). This review focused on the communities in which the cross-sector protection approach was implemented (animal health support, rangelands rehabilitation, community-based protection mechanisms), to maximize its learning potential for programme quality. These are height communities – communities where five to eight sets of activities took place (see Table 2.1) – which were selected to be targeted by the survey. The survey was also carried out in one further community in which animal health activities were implemented and solar panels were distributed (see Table 2.1, community where four activities took place). This community was initially sampled as a back-up, but the survey team had to include it in the

survey frame, given the challenges met during implementation of data collection (see Section 4).

Note that because of this focus, the review does not estimate the overall average impact of the project. This average impact on outcomes related to animal health would be the same if we assume that the communities selected for this review are representative of the whole, as these activities were implemented in all communities. The average overall impact on the other dimensions investigated in this report is likely to be lower than the one estimated in this report because fewer activities were carried out in the communities not included in the review.

Two points are critical for the selection strategy of the comparison communities. First, these nine communities were all considered to be at high risk of forced displacement due to 'a "relocation" plan advanced by the Israeli authorities in recent years', according to OCHA. Second, activities related to the project's theory of change were carried out in some communities as part of other projects: for example, PLDC conducted animal vaccination campaigns as part of the AMAD project in seven of the nine communities between 2014 and 2017.

Comparison communities were thus identified among other Bedouin communities regarded by OCHA as being at high risk of displacement.¹⁴ Among these, 10 communities in which PLDC conducted vaccination campaigns as part of AMAD or another Oxfam project were included to balance for the fact that PLDC also worked in the intervention communities in addition to the project under review. Eight communities and two back-up communities were randomly picked where PLDC did not work. Hence 73 percent of the communities targeted for the survey in the intervention group and 50 percent in the comparison group were exposed to these activities (difference not significant, $n = 31$).

Two other sets of activities related to the theory of change of the project under review were identified:

- As part of the project Integrated Protection in Area C: Enhancing the Resilience of Communities to Violations of International Humanitarian and Human Rights Law, research or objections to existing plans of forcible transfer were carried out by LRC or two other partners (Yeshdin and Bimkom). These activities were carried out in some communities in the intervention and comparison areas (in similar proportions in both groups – 18 percent in the intervention group and 15 percent in the comparison group, difference not significant, $n = 31$).
- PLDC carried out a vaccination campaign in October–November 2018 in communities in both groups (in similar proportions in both groups – 36 percent in the intervention group and 40 percent in the comparison group, difference not significant, $n = 31$).¹⁵

The robustness checks presented in Appendix 4 investigate whether these activities are driving the overall results presented in Section 6.

This review thus focuses on activities implemented at the community, household or individual levels, and does not include the impact of the engagement of Oxfam with key international stakeholders to challenge Israeli policies that are in violation of international humanitarian law. The project final evaluation highlights Oxfam's contribution on the matter (ARCO, 2018).

3.2.2 Selection of households and individuals

In the setting of this review, 'household' was defined as all those who normally slept under the same tent or in the same dwelling in the previous month, and who shared care and responsibility of the same livestock. Caring for livestock was defined as feeding, milking,

taking to grazing areas, taking care of when sick, and other similar activities. Responsibility over livestock was defined as deciding whether and when to sell the stock, take to the vet, etc. For the household definition, the livestock considered as priority were sheep and goats because of the focus of the project under review. According to the data at hand at the time of preparation of this review (OCHA data available online gathered in 2017), on average, Bedouin communities are made up of 30 households. We thus decided to target all households in the sampled communities.

Gender is one dimension of systemic inequality in the context of this review that is at play at different scales, including within the household. To be able to look at individual-level characteristics of resilience capacities, including household-level ones (see Section 5) and the impact of the project at the individual level for women and men within the household, the following survey protocol was defined:

- For each household, a head will be identified among the household members. They will be self-identified or identified as such by other household members.
- The survey main respondent will be either the head or spouse; the individual module will be conducted with the main respondent alone, as much as possible. The household module will be conducted with the main respondent, and with other knowledgeable adult household members if possible and if need be.
- Enumerators in charge of surveying a given gender were assigned to sub-sections of the communities, to introduce some independent variation in the gender of respondent. Men enumerators will always survey men main respondents; women enumerators will be assigned to survey either men or women main respondents each day.¹⁶ Each community will be covered by a pair of enumerators: one in charge of surveying men, and one in charge of surveying women.

In cases of a respondent thus identified not being available at time of the survey, whenever possible, enumerators had to arrange to come back to complete the survey (see Section 4 on the challenges faced by the team of enumerators on this). In cases where the head or spouse was absent for a long period of time (out-migration) or the head not having a spouse, the enumerator of the appropriate gender would carry out the interview (women enumerators could carry out interviews with women or men respondents).

This definition of survey respondents allowed us to focus on intra-household dynamics between spouses, on average, and on individual characteristics for women and men spouses.

3.3 DATA COLLECTION TOOL

Following discussions and workshops with Oxfam and partners, and working with the lead consultant and the team of enumerators, as well as testing questionnaires in the E1 area, a household module and an individual module were developed to capture recalled information used for matching, some output and outcome information related to the project, and different dimensions of resilience at the household and individual levels following Oxfam's conceptualization of resilience capacities (see Section 5). As much as possible, the questionnaire was built on survey questions already piloted by Oxfam or other organizations. Confidentiality of respondents' information and safety of respondents were key concerns at the time of the survey development. Names of household members in the household roster were only collected to help with the survey flow, and enumerators did not have to enter the full name or official name. Interviewees' contact information was collected at the very end of the interview, and emphasis was put on participation being voluntary and on data being safely stored through encryption (Vonk, 2019).

A short community-level questionnaire was also developed to gather information on proximity to education and health facilities, community resources and external support received. Community leaders answered this questionnaire. The form was fully anonymous by design and encrypted as soon as completed.

4 DATA

4.1 RESPONDENTS INTERVIEWED

Data collection took place between 9 December and 30 December 2018. It was led by Sireen Hosó, independent consultant, and 10 enumerators (eight women and two men). In total, 683 surveys were carried out, 268 in the intervention group and 415 in the comparison group. Half the respondents were women, and half men. Only 5 percent of respondents had moved into the communities targeted by the survey in 2016, 2017 or 2018 (similar shares in the intervention and comparison groups).¹⁷ Following the project logic (see Section 2.2), while some project activities were assumed to benefit the whole community (rangeland and cistern rehabilitation, strengthening of community protection committee), others focused on the households (animal health support) and individuals (animal health prevention and knowledge of rights and legal procedures to handle orders). For this reason, we restricted the analysis to households and respondents who were already in the communities at the end of 2015, that is those who were exposed to the whole duration of the project in the intervention group, or would have been had the project taken place in these communities in the comparison group. The analysis in this report was thus undertaken with 651 surveys, 257 in the intervention group and 394 in the comparison group.

It is important to highlight that transportation to and accessibility of the communities was a challenge in the process of gathering the data used for this review. One principal comparison community could not be visited because it was particularly hard to reach and was replaced by a back-up community. In practice, it was difficult to reach the number of households targeted per community because of temporary migration during the winter of some households, long-term migration out of the communities due to increasing pressure and, in some cases, forced evacuation. For this reason, the team visited the principal and secondary lists of communities (see Section 3.2.1).¹⁸ Thus 30 communities were visited, among which were 11 intervention communities.¹⁹ It is important to highlight that temporary and long-term migration or displacement results in assessing the impact on a selected sample of respondents: people who chose not to (temporarily) migrate, or who could not migrate, and people who were not displaced.

Refusals were low, except in two intervention communities. Men's availability was constrained by animal grazing or working outside of the communities during weekdays and at daytime. Enumerators conducted the survey where men were working (on grazing lands) as much as possible and conducted follow-up visits on Saturdays when men were available. Women's availability was constrained by the requirement for them to feel comfortable during the survey and, in cases where they were living with their partner, women sometimes required their husband to consent to their participation. In other instances, another family member attended the interview, and enumerators were instructed to skip sensitive questions.²⁰

Sireen Hosó's field report highlights a few additional key points about the generation of data used in this review. Firstly, it is important to note that the unstable security situation, and the fact that the survey sites were in tense areas, made it a hard and risky terrain for the enumerators' team. Tensions were indeed high in the area around a community for which Israel's High Court of Justice had just ruled in favour of an indefinite delay of the forced evacuation (October 2018), where the evacuation has been strongly opposed by the international, European and Palestinian institutions, and local activists. As mentioned in the introduction, 2018 saw a rise in Israeli settler violence and vandalism (Protection of Civilian Reports from 6 December 2018).²¹ On 30 December 2018, 30 sheep were hit by a settler's vehicle in a community that was part of the survey conducted for this review. Private transportation was provided to maximize the safety of the enumerators. Secondly, the

survey participants were reluctant to disclose some information, particularly that related to their material living conditions. The enumerators stressed the confidentiality of the information provided, as well as the purpose of the evaluation, but potential biases in the data generated cannot be ruled out – although this was observed in both the comparison and intervention areas. Third, some communities were dissatisfied and angry with Oxfam’s previous interventions, some expressing a feeling of unequal support, leaving the enumerators’ team feeling distrusted, in spite of clarifying their role and the purpose of this evaluation. The work done by the team to overcome these challenges and create a trusting relationship with community leaders and survey participants made this review possible.

4.2 ANALYSIS OF BASELINE CHARACTERISTICS

As mentioned earlier, information was gathered to characterize communities’, households’ and individuals’ situations in the year preceding the project under review.²² Differences between intervention and comparison groups is presented, as well as how these differences have been corrected in the rest of the report.

4.2.1 Description of the population and main differences between intervention and comparison groups

In 2015, on average, the closest kindergarten in the intervention group was an hour and 24-minute walk away from the community (not statistically different in the comparison group, see Table 4.1), and the closest primary school 1 hour 37 minutes (n = 30) away. The closest health facility was 1 hour and 49 minutes away, on average. Table 4.1 also shows descriptive statistics about community resources linked to the theory of change of the project under review and the differences observed. While 79 percent of communities in the comparison group had at least one functioning cistern in 2015, this was true for only 9 percent of communities in the intervention group. When communities did have functioning cisterns, the average number was nine, in both groups. Rangelands were slightly further away in the intervention group than in the comparison group in 2015: 29 minutes, against 15 minutes.

Table 4.1: Characteristics of the communities at project onset

	Comparison group mean	Intervention group mean	p-value	Observations	Level of significance
Proximity to social services					
2015 – Time walking to the closest kindergarten – min	95.789	83.636	0.678	30	
2015 – Time walking to the closest primary school – min	96.316	96.818	0.987	30	
2015 – Time walking to the closest health facility – min	106.579	109.091	0.935	30	
Community resources					
2015 – Any functioning cisterns	0.789	0.091	0.000	30	***
2015 – Number of functioning cisterns	6.947	0.818	0.036	30	**
2015 – Time walking to the closest range land – min	14.737	29.545	0.001	30	***

Table A2.1 presents a description of household and individual characteristics in the intervention and comparison groups, based on recall information (and a few characteristics

at time of the survey that are assumed not to be affected by participation in the project). In the surveyed communities targeted by the project, 21 percent of households declared that their house or animal shelter was demolished in 2015 (against 16 percent in the comparison areas – difference not statistically significant) and 58 percent were under military order in 2015 – a stop-work or demolition order for any structure that belonged to the household – and this is not different in the comparison group. In the intervention group 44 percent of households had always lived in this community (47 percent in the comparison group, difference not statistically significant) and 95 percent of households existed in 2015, against 90 percent in the comparison group (difference significant at 5 percent). Households were made up of six members on average (6.3 in the comparison group and 5.8 in the intervention group, difference significant at 5 percent).

In 2015 in the intervention area, 47 percent of households owned goats and 42 percent owned sheep, 56 percent received veterinary services and 35 percent had access to grazing land. In addition, 48 percent of households had at least one member involved in casual labour and 75 percent received pension or social transfers (such as social affair scheme or UNRWA scheme - United Nations Relief and Works Agency for Palestine Refugees in the Near East). There were no statistically significant differences between the intervention and comparison groups.

At time of the survey, the average respondent was 38 years old, 77 percent could read and write a simple letter and 30 percent had received primary education. Here, and in the rest of the report, we assume that literacy and the education level of the respondents and household heads were not affected by participation in the project. It is important to highlight two key differences in respondents' characteristics between the project and comparison communities.

Firstly, while 58 percent of respondents were women in the intervention group, only 44 percent were women in the comparison group. This in part reflects different household structures in the two sets of communities with 9 percent of households whose head was a woman in the intervention group, against 4 percent in the comparison group. Note that while heads were not living with their spouse in only 14 percent of households overall, this proportion was 90 percent of the households whose head was a woman in 2015 (67 percent of them were widowed and 10 percent divorced or separated). As the gender of the household head in 2015 is a strong predictor of the gender of the head at the time of the survey, and heads who were not living with their spouse were surveyed no matter what their gender (see Section 3.2), this would in part explain the imbalance in the gender of the respondent. However, this does not explain such a large imbalance. Short-term migration of men spouses, or unavailability due to employment outside the community being stronger in the intervention group than in the comparison group could explain this further imbalance.

Second, 24 percent of respondents were a member of any group in 2015 (women's group, community protection sub-committee, community council, religious group, other group) against only 6 percent in the comparison group. This suggests that group organizing was stronger in the first place in the communities targeted by the project for the cross-sector activities (and this imbalance holds for each type of group).

As much as possible, these observable differences have been corrected for by the matching procedure.

4.2.2 Correction of differences

Differences that existed before the project have the potential to bias any comparison between the project and comparison groups at endline. It is therefore important to control for these baseline differences when making such comparisons.

As described in Section 3, the main approach used in this Effectiveness Review was propensity-score matching (PSM). The variables on which respondents were matched were selected from among the full list detailed in Appendix 2, based on two key factors. Firstly, we selected variables that were thought to be the most significant in influencing respondents' participation in the project. Secondly, we aimed to include variables that could affect potential project outcomes *as well as* the likelihood of participating in the project. The list of matching variables selected and the full details of the matching procedure applied are given in Appendix 3.

After matching, households' and individuals' characteristics in the project and comparison communities were well balanced in terms of the recalled baseline variables used for matching. A small share of observations could not be matched and so were dropped from the analysis (see details in Appendix 3). The recalled baseline variables that were not included in the matching process were balanced after matching, and this is presented in Appendix 3.

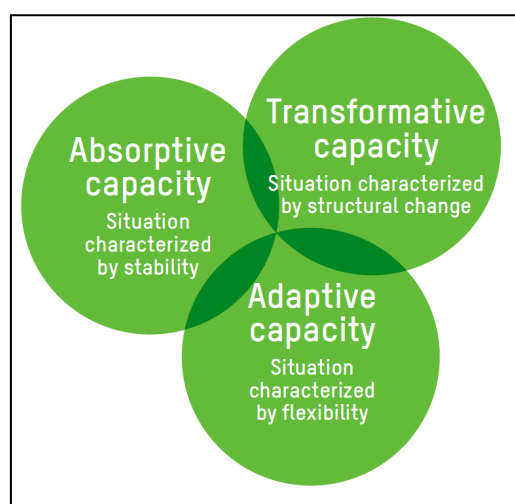
We also noted that access to piped water on the premises in 2015 was imbalanced before matching (87 percent in the intervention group, against 37 percent in the comparison group), and after matching (87 percent, against 42 percent in the comparison group). As one indicator of resilience is related to access to drinking water, we took this into account in the way this indicator is calculated (see Appendix 1).

5 ASSESSING RESILIENCE CAPACITIES

5.1 OXFAM'S UNDERSTANDING OF RESILIENCE CAPACITIES

Oxfam defines resilience as 'the ability of women and men to realize their rights and improve their well-being despite shocks, stresses and uncertainty'. The approach taken in this Effectiveness Review to understanding resilience draws on *The Future is a Choice* (Jeans *et al.*, 2016), Oxfam's guidelines for the design and implementation of resilience-building programmes, is an approach that 'affirms people's right to determine their own futures by enhancing the capacities of people and institutions to address the causes of risk, fragility, vulnerability and inequality'. In particular, resilience is considered to consist of three interlinked capacities: to absorb, adapt and transform.

Figure 5.1: Resilience capacities



Oxfam's understanding of each of these three capacities is described in *Absorb, Adapt, Transform* (Jeans *et al.*, 2017):

Absorptive capacity is the capacity to take intentional protective action and to cope with known shocks and stress. It is needed as shocks and stress will continue to happen, for example due to extreme weather events caused by climate change, protracted conflict, and disasters. Simply stated this is the capacity to 'bounce back' after a shock. It involves anticipating, planning, coping and recovering from specific, known shocks and short-term stresses. Absorptive capacity is about ensuring stability because it aims to prevent or limit the negative impact of shocks on individuals, households, communities, businesses and authorities. (Jeans *et al.*, 2017, p. 3)

Adaptive capacity is the capacity to make intentional incremental adjustments in anticipation of or in response to change, in ways that create more flexibility in the future. It is necessary because change is ongoing and uncertain, and because intentional transformation takes time and sustained engagement.

Adaptation is about making appropriate changes in order to better manage or adjust to a changing situation. A key aspect of adaptive capacity is accepting that change is ongoing as well as highly unpredictable. That is why adaptive capacity is about flexibility, and the ability to make incremental changes on an ongoing basis through process of continuous adjusting, learning, and innovation. (Jeans *et al.*, 2017, p. 4)

[T]ransformative capacity is the capacity to make intentional change to stop or reduce the causes of risk, vulnerability, poverty, and inequality, and ensure the more equitable sharing of risk so it is not unfairly borne by people living in poverty or suffering from discrimination or marginalisation.

Transformation is about fundamental changes in the deep structures that cause or increase vulnerability and risk as well as how risk is shared within societies and the global community. Another way to think about this is that transformation is about addressing the underlying failures of development or power imbalances that cause or increase and maintain risk and poverty. Transformation is not about addressing the close or proximate causes of risk and vulnerability but their structural or root causes.

[...] [T]ransformation is a deep change in the very structures that cause and maintain poverty and injustice. Therefore, transformative capacity is the capacity of women and men to generate and engage in deep ongoing change that addresses the root causes of poverty, and injustice, vulnerability and risk. (Jeans et al., 2017, p. 5)

While the three capacities of resilience are capacities that co-exist at different scales in a given system, the approach developed in this review focuses on the capacities of households and individuals.

In addition, from a monitoring and evaluation perspective, *'we need to differentiate two different situations at which to assess resilience capacities: a chronic situation where stress, change and uncertainty are affecting people and systems and a crisis situation where shock has occurred'* (Febles, 2018, p. 13). This review focuses on investigating the chronic situation faced by the Bedouin people in the E1 territory, under constant threat of demolition and displacement.

5.2 ENSURING THE REPRESENTATION OF WOMEN AND MEN

Building resilience is about bringing about changes *'in the very structures that cause and maintain poverty and injustice'* (Jeans et al., 2017, p. 5, about the transformative capacity). Gender is one power dimension at play at different scales, including within the household, and differently for different social groups. Oxfam also highlighted the importance of taking gender justice into account when building resilience (Sotelo Reyes, 2017). Being blind to gender dynamics when building resilience may indeed lead to perverse effects in our programming, and building resilience is ultimately about tackling root causes of inequalities, gender being one dimension of systemic inequalities.

From an evaluation perspective, *'recognizing that women, men, girls and boys have differentiated vulnerabilities, i.e., that they are exposed differently to risks and uncertainties and are affected differently by them'* (Sotelo Reyes, 2017, p. 4), *leads not only to considering household vulnerabilities and capacities, but also individual ones, of women and men, within the household.* The sampling strategy followed in this review, presented in Section 3, is key to enabling representation and visibility of women and men. This review focuses on women and men household heads and spouses.

'Recognizing that the distinct capacities of individuals to face and cope with risks and shocks are shaped – and often limited – by a system of power and privileges. In most cases, existing gender-based discrimination and inequalities limit women's and girls'

access to key information, strategic decision-making opportunities, or the resources they would need to adequately adapt to changes. This is no accident: it is due to deep-rooted gender-based inequalities and unequal power relations'. (Sotelo Reyes, 2017, p. 4).

Access to information, decision-making opportunities or access to resources within the household are key dimensions to be investigated, and some questions from the Women's Empowerment in Agriculture Index individual questionnaires were used around access to and control over resources and income. *'Transformative capacity relates to systems and long-term change [...]. Intra-household power dynamics, including the interactions between women and men, are likely to be vital drivers in the long-run', as highlighted by Jonathan Lain (blog post 4 October 2016).*

Following Jones and Tanner, 2015, and Lockwood et al., 2015, this review investigates different dimensions of resilience, including subjective resilience: one's perceived ability to deal with future shocks. As underlined in Béné et al., 2016, *'Although shocks, unforeseen events and changes affecting people's lives and livelihoods are part of an "objective" (i.e. measurable) reality, the evidence suggests that individual and collective responses and adaptation are also influenced by the subjective perceptions that people have about that reality.'* Similarly, perceptions and subjective resilience may differ from one social group to another depending on power relations, including between men and women, as social groups, and within the household.

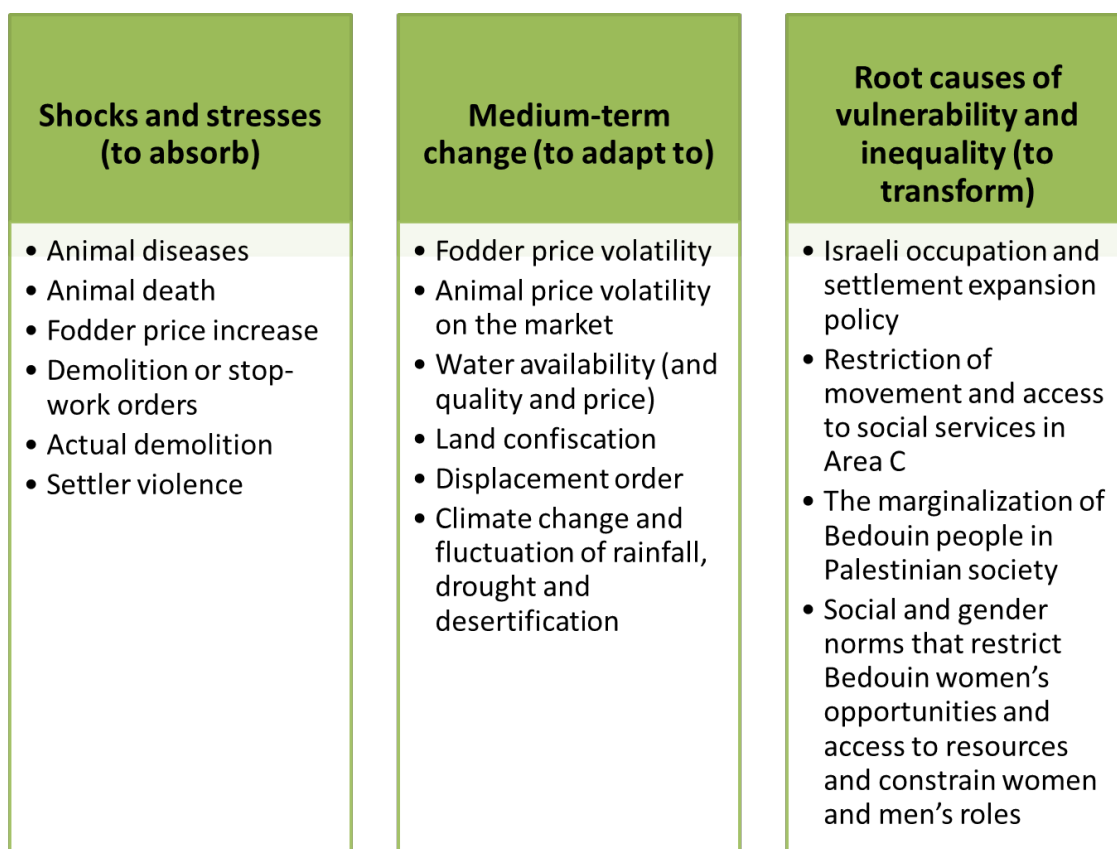
5.3 HOUSEHOLD AND INDIVIDUAL CHARACTERISTICS OF RESILIENCE CAPACITIES

The individual and household modules of the questionnaire developed for this review intended to allow the construction of indices of resilience capacities and a multi-dimensional index of resilience. In common with previous Effectiveness Reviews carried out under the resilience theme, this approach was based on the assumption that there are particular characteristics of households and individuals that affect how well they are able to cope with shocks, positively adapt to change and transform deeper causes of inequalities.

Insofar as there are multiple final well-being outcomes, there should also be a wide range of resilience capacity characteristics. Resilience is understood as operating at many different scales (individual, household, community, and so on) as well as for different shocks, stresses, uncertainties, and causes of inequalities, with different time horizons. Resilience is also about challenging the deep causes of inequalities. As a consequence, the number of resilience characteristics is potentially very high. A limitation, of course, is that it is not known for certain how relevant particular characteristics actually are; rather, it is assumed that they are important based on common sense, theory, and an understanding of the local context.²³

A workshop conducted with the project team in Ramallah on 27 November 2018 contributed to identifying the shocks, stresses, uncertainties or root causes of vulnerability and inequality to absorb, adapt to or transform in response to. The workshop led to identifying the following:

Figure 5.2: Shocks, stresses and root causes of vulnerability and inequality



In combination with a desk review, this led to a list of 26 characteristics being drawn up that are thought to be associated with resilience in the project areas in general and with different resilience capacities in particular. Appropriate data were then generated through the household and individual modules of the questionnaires (see Table 5.1).

It is important to note that while not all characteristics considered in this Effectiveness Review may be directly linked to the project activities, all are thought to be important to a household's and individual's overall resilience in the project area. The second column of Table 5.1 shows the characteristics on which the project was expected to have an impact, in line with the project logic.

Table 5.1: Characteristics of resilience examined in this review

Capacity	Connected to the project logic?	Characteristic	Rationale	Measurement level
Absorptive capacity	Yes	Knowledge of rights as a Bedouin living in the West Bank	Ensures that different individuals within the household know their rights and how to claim them.	Individual
	Yes	Knowledge of legal procedures, documents required for the objection to military orders	Ensures that different individuals within the household can engage in the right procedures to protect themselves (delay demolition).	Individual
	Yes	Animal health knowledge	Household members know how to treat animals in case of diseases (absorb shock) or deaths (mitigate risk of further contamination).	Individual
	Yes	Cattle vaccination	Vaccinated livestock are less prone to disease.	Household
	No	Diversification of income sources – off-farm activities and government or social benefits	Household members have alternative sources of income to rely on if livestock is threatened (diseases, death, price of fodder, land confiscation, water availability, price of livestock on the market).	Household
	No	Access to drinking water	Improved sources of drinking water lead to improved physical health for household members.	Household
	No	Social support network	Social networks can provide practical, financial or moral support in times of crisis.	Household
	Yes	The household is not relying on livestock sales in case of urgent expenses	Can absorb a shock without deteriorating main source of livelihood (flock size).	Household
	Yes	Confidence that the community will be able to protect itself in case of demolition/stop-work order being issued	Confidence to absorb shock (military order).	Individual
	Adaptive capacity	No	Remittances	Can provide a dependable source of income in the event of a crisis, or a source of finance for proactive adaptations.
Yes		Ownership of fungible livestock	Fungible livestock are a saving device and can be sold in anticipation of a shock or to adapt livelihood.	Household
Yes		Productive assets ownership	Provides a means of generating income.	Household
No		Understanding of climate change	Understanding of climate change is needed to adapt to medium-term changes.	Individual

Capacity	Connected to the project logic?	Characteristic	Rationale	Measurement level
Absorptive capacity	No	Attitude towards change	Individuals are inclined to proactively adapt their livelihood activities.	Individual
	Yes	(Improved) access to water for food or fodder production for animal	Allows households to improve their livelihood conditions.	Household
	No	Control over decision to sell livestock heads	Ensures that different individuals within the household have access to using livestock as an adaptation mechanism.	Individual
	No	Dietary diversity	Associated with nutritional balance in the diet, and hence with physical health.	Household
	No	Availability of food without concern	Having enough food is a prerequisite to health and well-being ultimately and is a sign of reduced stresses and uncertainties.	Individual
	Yes	Participation in community groups	Provides a forum for voicing concerns and for engaging in collective action.	Individual
		Control over income from livestock sales and livestock products, and off-farm economic activities (petty trading, processing)	Access to off-farm income sources and control over its use enhances individuals' well-being and opportunities.	Individual
	No	Belief in collective action's effectiveness	Belief in collective action's effectiveness is a sign of power within being built and is needed for individuals to be able to claim their rights.	Individual
	No	Opinion on women's political role	Social norms around women's political leadership would foster women's ability to voice issues and women and girls' opportunities.	Individual
	No	Opinion on acceptability of violence inside the household	Social norms around unacceptability of domestic violence would reduce vulnerability and long-term inequalities.	Individual
	No	Education of children	Education provides a basis for improved ability to realize rights and improve well-being in the next generation.	Household
	No	Ability to decide for one own movements and participation in community activities	Ensures that different individuals within the household can engage with community meetings, activities (such as trainings) and can move freely.	Individual
	Yes	Access to agricultural or grazing land	Land access is key for herders' livelihood. Land usage (as long as it is documented) is also a way to mitigate displacement threat.	Household

Different opinions and livelihood conditions are shaped by values, social norms and structural inequalities. By moving the measurement framework from the household to the individual, we attempt to better take into account these differences in our assessment of resilience capacities. This, in combination with the sampling approach (see Section 3), allows us to systematically assess resilience capacities of women and men, potential gender differences and differentiated impacts of the project under review among women and men.

To aggregate all indicators in resilience capacities indices, the number of indicators in which each individual reaches the threshold is counted, and the total is divided by the number of indicators (see Appendix 1). The resulting ratio – the proportion of indicators in which each individual scored above the threshold – is defined as the index of each resilience capacity. Individual- and household-level indicators are given the same weight in the index. Similarly, the overall resilience index is calculated by taking the arithmetic mean over all of the indicators. This leads to giving the same weight to each indicator (1/26 to each indicator), counting every indicator once, and making it easily interpretable as an individual level score. The drawback is that it does not give equal weight to each capacity because more indicators were identified for some capacities than for others. As a robustness check, we also computed the overall index as the average over the three capacity indices – the results are presented in Section 6.2.

6 RESULTS

Section 6 presents a comparison of the interviewed households and women and men from communities who participated in the project with those from communities who did not, in terms of various output and outcome measures relating to the project under review. The results are shown after correcting for observed baseline differences between the households interviewed in the project communities and those in the comparison communities using a propensity-score matching (PSM) procedure. More information about the procedure applied can be found in Appendix 3. All outcomes discussed here have also been tested for robustness with alternative statistical models, as described in Appendix 4. Major differences between the results reported in Section 6 and the robustness checks are highlighted when these lead to more conservative results than the main models.

The average overall effect is presented (for the average individual in the sample), estimated through PSM. Whether impacts for men and women are different are systematically tested. Under the section 'Testing for differential impacts', the tables will indeed show three rows,²⁴ as per the example shown in Table 6.1:

- *Gender effect in the comparison group – men compared to women:* this shows the differences between men and women, in spite of the intervention.
- *Impact of the project among women:* this shows the impact of the intervention among women.
- *Differential impact for women and men:* this tests whether the impact of the intervention is different for men compared to women.

These effects correct for differences between the two groups in 2015 through propensity-score weighting, controlling for matching baseline variables. Note that, using this specification, the effect size of the impact of the programme among men is obtained by adding the coefficients from the last row and the row before.

Table 6.1: Example of interpretation of table of results

	Respondent received training/info on animal health (%)	Interpretation
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	1.7 (1.2)	In spite of the intervention, women were as likely as men to have received information or training on animal health in the last three years – the coefficient is positive, small and not statistically significant
Impact of the project among women	-2.8 (2.2)	Women in the intervention group were as likely as women in the comparison group to have received such information – negative and small coefficient, not statistically significant
Differential impact for women and men	8.7*** (3.1)	The impact of the intervention is statistically different for men and women – the coefficient is statistically significant. Given the above line, this means that there is a positive impact of the intervention on men's access to information or training on livestock health (effect of 8.7 - 2.8 = 5.9) ²⁵

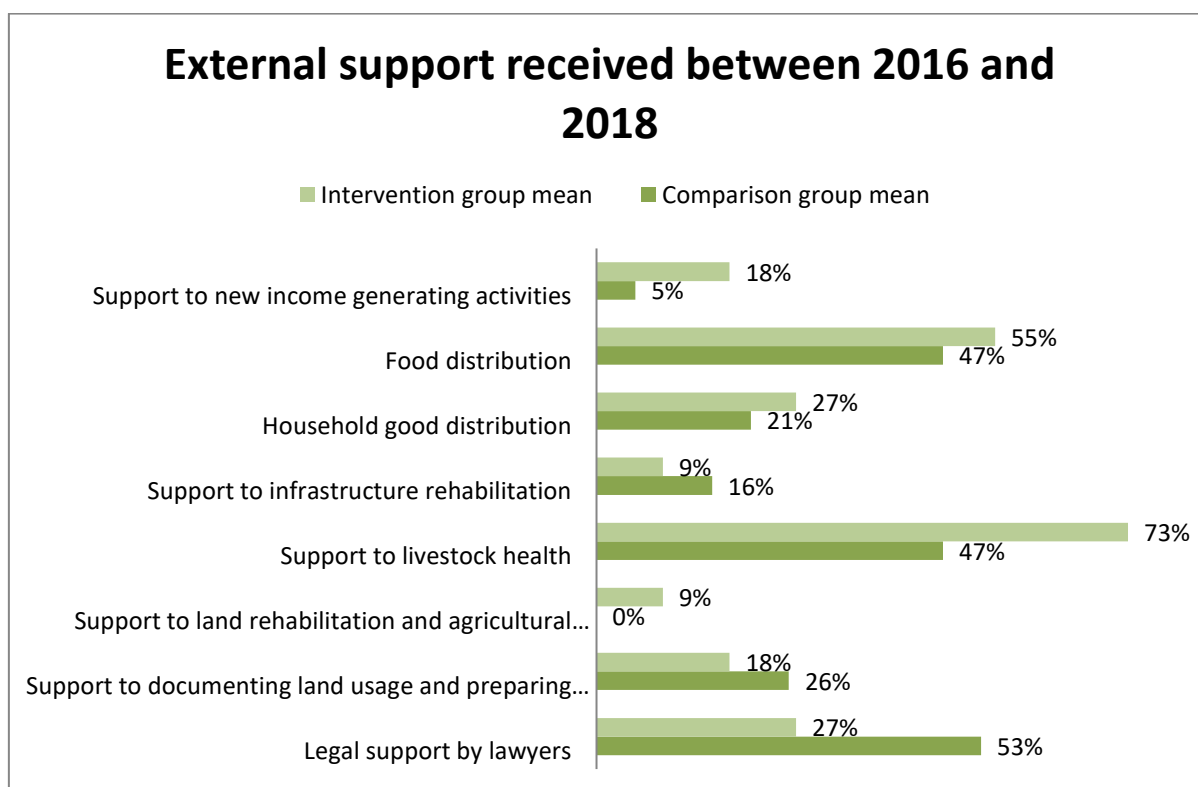
6.1 CROSS-SECTORIAL PROTECTION MECHANISMS

6.1.1 Context: threat of displacement and support received

As described above, this review took place in areas where the population has been facing direct threat of displacement over several years. Such threat has probed the scrutiny of the international community and direct support. From an impact evaluation perspective, it is important to understand the type of support received by the project communities, and whether it has differed from that received by the comparison group. We hence asked the community leaders about external support received between 2016 and 2018 (see Figure 6.1, n = 30²⁶). Support to livestock health and support to land rehabilitation or agricultural production has taken place more often in the intervention group than in the comparison group (73 percent vs 46 percent for livestock health support, 9 percent vs none for land rehabilitation support). However, support to infrastructure rehabilitation is identified a bit more in the comparison group than in the intervention group (9 percent vs 16 percent). A similar trend is observed when it comes to support in documenting land usage and preparing legal files (18 percent vs 26 percent). These are all activities directly linked to the project theory of change.

Note that legal support by lawyers is identified in 53 percent of communities in the comparison group, against 27 percent in the intervention group. Figure 6.1 also shows other areas of support received, not linked to the project's theory of change.

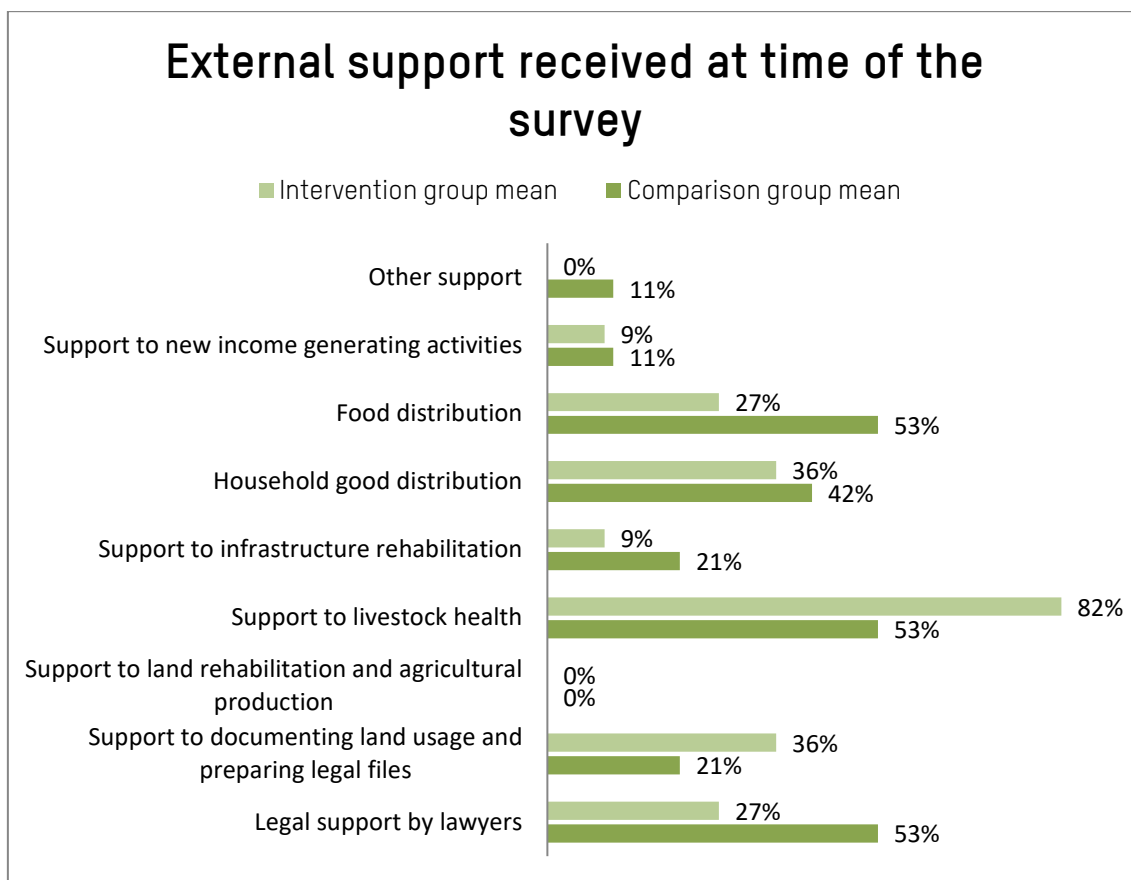
Figure 6.1: Support received between 2016 and 2018, community leader interview



At the time of the survey, that is a year after the project under review ended, in the intervention group, external support was widespread on animal health (82 percent of communities), on documenting land usage and preparing legal files (36 percent) and household good distribution (36 percent) (see Figure 6.2). In the comparison group, most

communities received food (53 percent), support on livestock health (53 percent), legal support by lawyers (53 percent) and household good (42 percent).

Figure 6.2: Support received at time of the survey, community leader interview



Note that 58 percent of respondents declared that their household was facing a stop-work or demolition order – house, animal shelter or any structure that belonged to the household at time of the survey (not statistically different between the two groups).

In the project areas, community leaders highlighted the need for electricity and water services. The need for solar panels is mentioned (at time of the survey, 44 percent of respondents in the project areas were relying on solar panels as the main source of electricity in the household). Transportation for students (at time of the survey, the closest kindergartens were, on average, 1 hour's walk away [n = 11, min = 0, max = 2 hours]; the closest primary school was, on average, 1 hour and 25 minutes' walk away [n = 11, min = 0, max = 3 hours]) and veterinary services were also highlighted, although less often. Some community leaders also highlighted the need for income-generating projects.

In the comparison areas, water and electricity services were often highlighted as well (and the need for solar panels and water tanks mentioned). Transportation for students, veterinary services, and income-generating projects were also mentioned by a few community leaders. Some leaders highlighted the need for education and health facilities as well as support to maintain the infrastructure.

6.1.2 Veterinary training and services

In the intervention group, 7 percent of respondents stated they had personally received information or training on animal health, and 11 percent reported that another household member had received such training in the past three years (see Table 6.2). While this was not significantly impacted by the project overall, we observed a positive and significant impact among men respondents: 6 percent of men in the comparison group received training or information on animal health, against 12 percent as a result of the project (difference significant at 10 percent).

Table 6.2: Training or information on animal health received in the past three years

	Respondent received training/info on animal health (%) ²⁷	HH member received training/info on animal health (%) ²⁸
Overall		
Intervention mean	6.61	10.89
Comparison mean	5.61	6.00
Difference	1.0 (3.1)	4.9 (4.8)
Observations (intervention group)	257	257
Observations (total)	644	644
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	1.7 (1.2)	-2.9 (2.3)
Impact of the project among women	-2.8 (2.2)	3.5 (4.6)
Differential impact for women and men	8.7*** (3.1)	2.5 (4.6)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

While we consistently observed no impact of the project among women respondents on knowledge of animal health, assessed through five statements, we observed a positive impact among men respondents (Table 6.3) (significant at 5 percent). This is driven by the statement 'The same antibiotic is used to treat all the germs that infect sheep' which more men identified as being false as a result of the project (around two thirds of men overall). This reflects the fact that the training delivered in the setting of this project was focused on prevention and is consistent with the results of the final evaluation of the project (ARCO, 2018).²⁹ It also reflects the gender norms at the time: men are considered responsible for livestock and livestock health expenditure, and women's mobility and participation in community events organized by external actors are restricted, which led to men being the voluntary participants in veterinary training in the setting of this project. Specific strategies would have to be deployed to involve women in such training, and that will require a better understanding of gender roles in livestock care.³⁰

Table 6.3: Knowledge of animal health

	Knowledge of animal health – Number of correct answers
Overall	
Intervention mean	2.32
Comparison mean	2.26
Difference	0.06 (0.14)
Observations (intervention group)	257
Observations (total)	644
Testing for differential impacts	
Gender effect in the comparison group – men compared to women	0.10 (0.17)
Impact of the project among women	-0.20 (0.16)
Differential impact for women and men	0.59** (0.24)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Note that in both groups, a few statements received a particularly low number of correct answers:

- Less than 10 percent of respondents identified that the statement ‘Dead animals should be thrown away’ is false.
- Less than a quarter of respondents identified that the statement ‘Disease symptoms always appear on sheep infected with Q fever’ is false.

In the intervention community, 56 percent of respondents reported having access to veterinary services in the 12 months preceding the survey, and 57 percent reported they had access in 2017 (see Table 6.4). Overall, no statistically significant difference was detected between intervention and comparison areas. However, among men respondents, the project has had an impact, increasing by six percentage points (significant at 10 percent) the share of men respondents stating that they had access to veterinary services in 2017.

In addition, we observed a gendered effect, as men are significantly less likely than women to state that the household had access to veterinary services in the comparison group.

Table 6.4: Access to veterinary services

	Access to vet services in last 12 months (%) ³¹	Access to vet services in 2017 (%) ³²
Overall		
Intervention mean	56.42	57.20
Comparison mean	55.44	58.84
Difference	1.0 (6.9)	-1.6 (6.9)
Observations (intervention group)	257	257
Observations (total)	644	644
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	-10.1*** (3.2)	-6.7** (2.7)
Impact of the project among women	0.9 (4.6)	-3.5 (3.9)
Differential impact for women and men	5.9 (5.8)	9.9* (5.1)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

At time of the survey, we observed high rates of vaccination among adult goats and sheep: 94 percent in the intervention group for both (Table 6.5). A positive impact of the project on adult sheep vaccination is observed as, on average, respondents in the comparison areas had vaccinated only 82 percent of their adult sheep at time of the survey. The Model 3 carried out as a robustness check (see Appendix 4) show that this does not seem to be driven by the most recent vaccination campaign.

Table 6.5: Proportion of livestock vaccinated in the last 12 months

	Proportion of adult goats vaccinated	Proportion of adult sheep vaccinated
Overall		
Intervention mean	0.94	0.94
Comparison mean	0.94	0.82
Difference	0.00 (0.03)	0.10** (0.05)
Observations (intervention group)	124	99
Observations (total)	314	238
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	0.01 (0.04)	-0.03 (0.10)
Impact of the project among women	-0.04 (0.05)	0.08 (0.06)
Differential impact for women and men	0.07 (0.07)	0.08 (0.09)

A caveat of the analysis carried out is that it did not go into the details of the different vaccines for goats and sheep. This was to manage the length of the interview and focus the one-hour interview on a broad understanding of resilience. A key question remains around sustained vaccination behaviours. For vaccines to have a long-term impact, they need to be repeated across years. By being repeated, we would expect a reduction of mortality and ultimately more animals in second generation.

We do not observe evidence of impact of the project on ownership of goats and sheep, including on the new generation of lambs and young goats (table not shown, available upon request).

In addition, it is important to highlight, as mentioned in Section 2, that the project focused on three vaccines.

Note that the final evaluation (ARCO, 2018) highlights that there has been an overall decline in flock size over the years, due to increased mortality rate, high price of fodder, lack of access to grazing areas and to water, and that the project 'has been able to mitigate but not to reverse the negative trend of flock size' (p. 29). The Effectiveness Review does not find evidence of this negative trend, nor of the mitigation effect of the project. Some methodological differences between the two evaluations that could explain the differences need to be highlighted. First, the quantitative data used in the final evaluation includes all the communities the project was implemented in, while this review focuses on the communities in which the cross-sectorial approach was implemented. Second, this review adopts a counterfactual approach, and reconstructed a comparison group with similar characteristics before the project started – based on recall data and statistical methods – to isolate the added-value of the project.

6.1.3 Land rehabilitation and water management

Table 6.6 presents the results on access to animal feed (fodder) in the 12 months preceding the survey, among respondents with any livestock at time of the survey. Only 5 percent of respondents reported that they produced their own animal fodder. For households that did not produce their own fodder, an average price of 2.92 NIS per kilogram was paid in the intervention group. Additionally, 65 percent of respondents in the intervention group reported that they had reduced the quantity of fodder given to their animals due to shortages in the previous 12 months, compared to 75 percent in the comparison group. No statistically significant difference was detected between intervention and comparison areas.

Table 6.6: Access to animal feed in the past 12 months

	Source of fodder is home-produced (%)	Price paid for fodder (NIS per kg)	Reduce quantity of fodder due to shortage (%)
Overall			
Intervention mean	5.06	2.92	64.61
Comparison mean	1.44	2.48	74.84
Difference	3.5 (2.9)	0.50 (0.84)	-10.4 (9.5)
Observations (intervention group)	178	169	178
Observations (total)	453	439	453
Testing for differential impacts			
Gender effect in the comparison group – men compared to women	2.2 (1.7)	-1.44* (0.85)	5.9 (7.0)
Impact of the project among women	2.3 (1.4)	0.71 (1.08)	-12.2 (9.9)
Differential impact for women and men	2.7 (6.3)	-0.35 (0.98)	-2.5 (11.4)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Table 6.7 presents the results on access to water for livestock in the 12 months preceding the survey, among households with any livestock at time of the survey. In the intervention group, 13 percent of respondents reported that they used water harvesting to provide water for their animals, compared to 16 percent in the comparison group. The average price paid for water in the intervention areas was 1.62 NIS per litre. No statistically significant differences were detected between intervention and comparison groups.

Note that men respondents were less likely than women respondents to state that the source of water for livestock is water harvesting in the comparison group.

Table 6.7: Access to water for livestock in the past 12 months

	Main source of water for animals is water harvesting (%)	Price paid for water (NIS per litre) – winsorized
Overall		
Intervention mean	12.92	1.62
Comparison mean	16.45	0.85
Difference	-3.7 (7.6)	0.82 (0.71)
Observations (intervention group)	178	178
Observations (total)	453	453
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	-13.0** (5.2)	-0.51 (0.50)
Impact of the project among women	-7.2 (5.5)	1.23 (0.93)
Differential impact for women and men	9.3 (6.6)	-0.73 (0.80)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Finally, we did not measure a significant impact on access to grazing land in the last 12 months (table not shown, available on request). Half of respondents who owned livestock at time of the survey in the project areas had access to grazing land, on average for 191 days. Half of them stated that it was absolutely unsafe for the household member(s) who accompany the livestock to reach the grazing land, with 82 percent identifying direct threats and intimidation as an obstacle and 56 percent citing obstruction preventing access. Note that we did not observe any significant difference between intervention and comparison groups on these dimensions (in part because of the rather small sample size of respondents having access to grazing lands).

6.1.4 Community-based protection mechanisms

At time of the survey, 35 percent of respondents in the intervention group were aware that the community has a protection committee or sub-committee, against 11 percent in the comparison group, as shown in Table 6.8. This is a difference of 24 percentage points as a result of the project, and the impact is not different for women and men respondents (and women and men were as likely to be aware of it in the first place). Note that in the intervention group, 80 percent of respondents who knew of the existence of the committee were very confident or somewhat confident that the committee would support the household to gather legal documentation in the case of a stop-work order or demolition order being issued against the respondent. Similarly, 79 percent of respondents were very confident or somewhat confident that the committee would support the community to gather legal documentation in the case of a stop-work order or demolition order being issued against communal infrastructure. Finally, only 21 percent of respondents declared that the community committee was working with the E1 protection committee.

The project also impacted participation, with only 1 percent of respondents regularly attending meetings of a protection committee or sub-committee in the previous 12 months

in the comparison group, against 11 percent in the intervention group. Note that the project had a different impact on women and men in this matter: although a positive and significant impact among women was observed, the impact on participation in a protection committee is stronger among men.

Table 6.8: Awareness of the existence of and participation in protection committee

	Respondent knows that the community has a protection (sub-)committee (%) ³³	Respondent regularly attended meetings of protection (sub-)committee in the past 12 months (%)
Overall		
Intervention mean	35.02	10.51
Comparison mean	11.26	1.43
Difference	23.8** (10.4)	9.1** (3.6)
Observations (intervention group)	257	257
Observations (total)	644	644
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	-0.3 (3.9)	3.3 (3.6)
Impact of the project among women	23.5*** (7.8)	4.9* (2.6)
Differential impact for women and men	-0.1 (5.3)	8.2* (5.0)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

However, it is important to highlight that these impacts are driven by the two communities in which protection committees were formalized as part of this project, and in which the committees have been very vocal and active because of the strength of the threat faced (see Appendix 4, description of Model 1). Indeed, when excluding these two communities, we still observed a positive impact (of 12 percentage points) on awareness of the existence of the committee, but not statistically significant (see Table A4.8). Regular attendance at the meetings of sub-committees had significantly increased by four percentage points (significant at 10 percent).

Table 6.9 shows the participation in training or reception of information related to rights to use and defend the land, and how to document the usage of the land. In the intervention areas, 10 percent of respondents stated they had received training or information on their rights to use or defend their land, against 8 percent in the comparison group (difference not significant). Among intervention respondents, 12 percent stated that a household member had received such training, and there is evidence of a significant difference between intervention and comparison respondents in this regard, as only 6 percent of respondents did so in the comparison group. This positive impact of the project is driven by men respondents, when it comes to both the respondent's direct access to information, or another household member's. It is also driven by the two communities facing a particularly strong threat and in which the protection committees were formalized, and the average effect is not robust to other specifications, as shown by Table A4.9. Within the intervention group, we observed that individuals who received training or information on their rights to

use or defend land were more likely to be part of community groups in 2015 (64 percent of those who received the training were involved in community groups, against 20 percent among those who did not receive the training).

In the intervention group, 9 percent of respondents stated that they had received training or information on how to properly document their land usage and prepare legal documentation to respond to military orders, against 4 percent in the comparison group (difference not significant). In the intervention group, 8 percent of respondents stated that another household member had received such training, against 3 percent in the comparison group (difference not statistically significant). Similarly, while the impact among women respondents is not significant (and close to 0 in this case), we observed a positive and significant impact of the project among men on access to training or information on documentation of land usage. Within the intervention group, we observed that individuals who received training or information on how to document usage of land were more likely to be part of community groups in 2015 (70 percent of those who received the training were involved in community groups, against 20 percent among those who did not receive the training). Only 39 percent were women (against 60 percent among those who did not receive the training). This raises questions about the targeting of such activities, and in particular about how to facilitate the participation of community members who are not already involved in community institutions, and how to facilitate women's participation in a setting where gender norms strongly constrain it.

Table 6.9: Access to training and information related to land usage and defence in the three years prior to the survey

	Respondent received training/info on rights to use/defend land (%) ³⁴	HH member received training/info on rights to use/defend land (%) ³⁵	Respondent received training/info on how to document usage of land (%) ³⁶	HH member received training/info on how to document usage of land (%) ³⁷
Overall				
Intervention mean	9.73	12.06	8.95	8.17
Comparison mean	7.96	6.13	3.80	3.21
Difference	1.8 (3.1)	5.9** (2.7)	5.2 (3.9)	5.0 (3.2)
Observations (intervention group)	257	257	257	257
Observations (total)	644	644	644	644
Testing for differential impacts				
Gender effect in the comparison group – men compared to women	-9.6** (3.9)	-7.9*** (2.9)	-3.8 (3.1)	-0.9 (2.3)
Impact of the project among women	-5.0 (3.3)	1.1 (2.6)	0.0 (3.8)	0.3 (2.6)
Differential impact for women and men	14.6*** (5.3)	9.6*** (3.7)	11.3** (4.7)	9.2** (3.9)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

In the intervention group, 28 percent of respondents stated that they had received legal support from a lawyer on how to deal with a military order, against 36 percent in the comparison group (Table 6.10). This difference is not statistically significant.³⁸ Note that

men are significantly more likely to be aware of the receipt of legal support than women (and/or to feel comfortable sharing this information).

Table 6.10: Receipt of legal support in the past 3 years (NRC layer for example)

	Legal support (%) ³⁹
Overall	
Intervention mean	27.63
Comparison mean	35.91
Difference	-8.3 (9.9)
Observations (intervention group)	257
Observations (total)	644
Testing for differential impacts	
Gender effect in the comparison group – men compared to women	20.4*** (5.8)
Impact of the project among women	-7.3 (8.4)
Differential impact for women and men	-4.1 (8.8)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Finally, we highlight that 20 percent of respondents in the intervention group were aware of any legal file being prepared for the community in the last 12 months, against 14 percent in the comparison group (difference not statistically significant, and there are no differential impacts by gender of the respondent. Table 6.11).

Table 6.11: Legal file being prepared for the community in the past 12 months

	Any legal file being prepared for the community in the last 12 months (%)
Overall	
Intervention mean	19.84
Comparison mean	13.88
Difference	6.0 (5.8)
Observations (intervention group)	257
Observations (total)	644
Testing for differential impacts	
Gender effect in the comparison group – men compared to women	-0.3 (5.1)
Impact of the project among women	4.2 (7.3)
Differential impact for women and men	4.1 (7.1)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Table 6.12 shows the impact of the project on the number of correct answers to a few statements around the rights of the Bedouin people to use the land in the Area C of the West Bank, and on the legal procedures related to land usage and orders from the Israeli forces. On average, respondents identified correctly two statements out of four, when it comes to their rights. However, the project seems to have had a negative effect on knowledge for both women and men (one out of three respondents identified incorrectly one more statement in the intervention group than in the comparison group). This seems driven by the statement 'Israel has the right to destroy private property to protect its security', which respondents in the intervention group are less likely to identify as false, than in the comparison group (71 percent do so in the intervention group, against 86 percent in the comparison group). Table A4.12 shows that this negative effect is reduced (lower size and only significant at 10 percent) when excluding two specific communities facing high threat, or when using another specification.

Overall, the project did not impact the average number of correct answers from respondents on legal procedures (on average, two correct responses out of six). When looking at each statement, the project appears to have had a positive impact on one statement: 23 percent of respondents in the intervention group identify that indeed 'There are Israeli organizations that provide legal support to Bedouins in case of violence by the Israeli Army', against 12 percent in the comparison group.

It is noted that men tended to give a significantly higher number of correct answers to both the statements about rights and about legal procedures than women.

Table 6.12: Knowledge of rights and legal procedures

	Knowledge of rights – Number of correct answers	Knowledge of legal procedures – Number of correct answers
Overall		
Intervention mean	2.12	2.44
Comparison mean	2.46	2.59
Difference	-0.34*** (0.12)	-0.14 (0.21)
Observations (intervention group)	257	257
Observations (total)	644	644
Testing for differential impacts		
Gender effect in the comparison group – men compared to women	0.32*** (0.05)	0.55*** (0.19)
Impact of the project among women	-0.45*** (0.12)	-0.12 (0.17)
Differential impact for women and men	0.23 (0.16)	-0.08 (0.25)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Note that in both groups, a few statements received particularly low shares of correct answers:

- Only a quarter of respondents identified that the statement 'Israel is not responsible for providing basic services to the Bedouin communities in Area C' is false.
- Only 15 percent of respondents identified that the statement 'The same legal procedures are followed in cases of demolition of buildings and evacuation of lands' is false.
- A third of respondents identified that the statement 'The date of the demolition is calculated from the date of receiving the decision from the Israeli Army' is false.

These results present the average impact in the communities, irrespective of actual participation in training. When looking at the correlation between individual participation in training and knowledge of rights and legal procedures in the intervention group, we observe a positive relationship, although not significant when it comes to knowledge of rights.⁴⁰

6.2 RESILIENCE INDICES

6.2.1 Resilience capacities indices

Table 6.13 presents the resilience capacities indices – absorptive, adaptive and transformative – and the overall resilience index. We observed a positive and significant impact of the project on the transformative capacity of women and men (the observed impact is not different between women and men). No significant impact of the project was detected on the building of absorptive and adaptive capacity in women and men.

In total, 26 resilience indicators or characteristics were identified for the overall resilience index, and the results show that respondents in the intervention areas scored positively in 45 percent of the characteristics, compared to 43 percent for respondents in comparison areas. This difference is not statistically significant. To check that the results are not driven by the fact that each capacity of resilience is not given the same weight in the overall index (because the number of indicators per capacity varies, see Table 5.1), we also calculated the overall resilience index as the average of the three capacities indices. The results are consistent (difference of 0.02, not statistically significant).

Note that women scored significantly lower than men on the resilience indices (overall and per capacity).

Table 6.13: Resilience indices

	Index of absorptive capacity	Index of adaptive capacity	Index of transformative capacity	Overall resilience index	Resilience index – mean of 3 capacities
Overall					
Intervention mean	0.41	0.43	0.48	0.45	0.44
Comparison mean	0.40	0.42	0.43	0.43	0.42
Difference	0.01 (0.02)	0.01 (0.03)	0.05** (0.02)	0.02 (0.02)	0.02 (0.02)
Observations (intervention group)	257	257	257	257	257
Observations (total)	644	644	644	644	644
Testing for differential impacts					
Gender effect in the comparison group – men compared to women	0.04*** (0.01)	0.03* (0.02)	0.07*** (0.02)	0.05*** (0.01)	0.05*** (0.01)
Impact of the project among women	0.02 (0.02)	0.01 (0.03)	0.05** (0.02)	0.03 (0.02)	0.03* (0.02)
Differential impact for women and men	-0.02 (0.02)	0.01 (0.03)	-0.01 (0.03)	-0.00 (0.02)	-0.01 (0.02)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

6.2.2 Dimensions breakdown

In this section, we present the breakdown for each indicator, for each capacity of resilience.

Tables 6.14 and 6.15 present the percentage of households scoring positively on each of the indicators of absorptive capacity. In terms of the characteristics where there were significant differences between the intervention and comparison respondents, we observed a significantly greater proportion of respondents in the intervention areas reported either giving or receiving financial support from other households in the community at least twice during the previous 12 months than in the comparison areas (33 percent vs 14 percent). We also observed that more households in the project areas received remittances than in the comparison group, although this is a very small share of households: 2 percent in the intervention group, against less than 1 percent in the comparison group. Note that access to remittances is considered a characteristic of both absorptive and adaptive capacities (see Table 5.1). Also, the significance and effect size are not robust to different specifications (see Table A4.15). A greater proportion of intervention respondents had confidence that the community would be able to protect itself in case of a demolition/stop order being issued (32 percent vs 14 percent). A significantly greater proportion of respondents from comparison areas had a greater knowledge of rights as a Bedouin living in the West Bank, than in the intervention group (34 percent of respondents identified correctly the answer to three or four statements out of four in the intervention areas, against 52 percent in the comparison areas). This is consistent with the results of Section 6.1.4.

For all of these results, the project's impacts are not different between women and men respondents.

Finally, no measurable impacts were observed on livestock vaccination, access to drinking water, income diversification, access to agricultural or grazing land (also considered an indicator of transformative capacity), knowledge of legal procedures and knowledge of animal health.

Table 6.14: Indicators of absorptive capacity

	Livestock vaccination (%)	Income diversification – Off-farm (%)	Drinking water (%)	Social support network (%)	Sale of livestock is not the main mechanism to cope with urgent expenses (%)	Access to agricultural or grazing land (%)
Overall						
Intervention mean	37.64	88.72	0.78	32.68	80.90	37.74
Comparison mean	31.26	90.49	0.73	13.58	81.30	42.69
Difference	6.3 (7.9)	-1.8 (4.0)	0.0 (0.7)	19.1*** (7.0)	-1.1 (6.6)	-4.9 (8.3)
Observations (intervention group)	178	257	257	257	178	257
Observations (total)	453	644	644	644	453	644
Testing for differential impacts						
Gender effect in the comparison group – men compared to women	6.5 (7.9)	-13.1*** (3.5)	1.1 (1.2)	-6.7 (5.2)	4.0 (6.3)	7.8 (7.0)
Impact of the project among women	3.2 (11.1)	-2.9 (3.3)	0.5 (0.8)	21.9*** (6.6)	4.2 (6.8)	0.9 (6.1)
Differential impact for women and men	4.8 (10.7)	3.4 (7.4)	-0.8 (1.6)	-7.3 (7.5)	-9.9 (8.8)	-12.1 (8.0)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Table 6.15: Indicators of absorptive capacity (continued)

	HH received remittances (%)	Knowledge of rights (%)	Knowledge of legal procedures (%)	Knowledge of animal health (%)	Confidence to absorb shock (demolition or stop-work orders) (%)
Overall					
Intervention mean	1.95	33.85	49.42	72.37	32.30
Comparison mean	0.25	52.18	55.35	70.96	14.22
Difference	1.7** (0.8)	-18.3*** (6.5)	-5.9 (6.5)	1.4 (6.1)	18.1*** (5.0)
Observations (intervention group)	257	257	257	257	257
Observations (total)	644	644	644	644	644
Testing for differential impacts					
Gender effect in the comparison group – men compared to women	0.8 (0.8)	18.9*** (4.1)	18.2** (7.9)	6.1 (7.3)	0.9 (5.7)
Impact of the project among women	1.6 (1.0)	-19.1*** (6.2)	-4.6 (7.0)	-4.9 (7.0)	20.3*** (6.1)
Differential impact for women and men	-0.1 (1.5)	-0.1 (9.4)	-4.3 (10.0)	15.5 (10.5)	-5.9 (9.5)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Tables 6.16 and 6.17 present the percentage of respondents scoring positively on each of the indicators of adaptive capacity. Overall, the project did not make an impact on any of the height characteristics of adaptive capacity: ownership of fungible livestock, productive asset ownership, access to improved sources of water for cultivation or livestock, dietary diversity, understanding of climate change, control over the decision to sell livestock, availability of food and attitude towards change. As mentioned above, it did make a small impact on access to remittances, which can provide a dependable source of income in the event of a crisis, or a source of finance for proactive adaptations, although a very small share of households received any remittances in the 12 months prior to the survey (less than 2 percent), and the significance is not robust (see Table A4.15).

However, among women respondents, we observed an impact on ‘understanding of climate change’ (from 54 percent to 67 percent of women scoring positively on this characteristic, difference significant at 10 percent).

Finally, we highlight that while decision-making power over livestock sales is not affected by the project, we observed a strong gender difference in the first place: we estimate that while 58 percent of women have a say over the decision to sell livestock, the gender

difference is estimated to be of 45 percentage points (in other words, men respondents, household head or spouse, are always involved in such a decision).

Table 6.16: Indicators of adaptive capacity

	Ownership of fungible livestock (%)	Productive assets ownership (%)	Access to improved sources of water for cultivation or livestock (%)	Dietary diversity (%)
Overall				
Intervention mean	43.58	50.58	14.79	45.14
Comparison mean	46.12	55.97	14.40	38.11
Difference	-2.5 (10.2)	-5.4 (8.9)	0.4 (6.7)	7.0 (8.3)
Observations (intervention group)	257	257	257	257
Observations (total)	644	644	644	644
Testing for differential impacts				
Gender effect in the comparison group – men compared to women	-6.1 (5.1)	-2.0 (4.0)	-5.3 (4.1)	-7.2 (4.7)
Impact of the project among women	-2.4 (7.0)	-4.8 (6.4)	1.5 (6.1)	4.7 (9.4)
Differential impact for women and men	5.1 (7.6)	4.1 (6.9)	-3.3 (7.1)	5.4 (8.8)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Table 6.17: Indicators of adaptive capacity (continued)

	Understanding of climate change (%)	Decision-making power to sell livestock (%)	Availability of food without concern (%)	Attitude towards change (%)
Overall				
Intervention mean	71.21	69.66	46.69	55.64
Comparison mean	59.26	73.60	48.04	57.64
Difference	11.9 (7.9)	-3.8 (5.1)	-1.3 (5.3)	-2.0 (4.9)
Observations (intervention group)	257	178	257	257
Observations (total)	644	453	644	644
Testing for differential impacts				
Gender effect in the comparison group – men compared to women	7.4 (6.3)	45.5*** (7.6)	11.3* (5.9)	-2.0 (7.1)

Impact of the project among women	13.3* (7.4)	-3.7 (8.4)	-4.0 (6.6)	0.8 (6.1)
Differential impact for women and men	-2.0 (7.0)	0.9 (8.0)	9.0 (9.4)	-8.2 (9.6)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Tables 6.18 and 6.19 present the proportion of respondents scoring positively on each of the characteristics that comprise transformative capacity.

We observed an overall significant impact on belief in collective action’s effectiveness, which is seen in both women and men respondents: 64 percent of respondents in the intervention group picked the statement ‘Ordinary citizens can do a lot to influence the government, if they make the effort’ over ‘There is not much that ordinary citizens can do to influence the government’, against 40 percent in the comparison areas.

We also observed a small negative impact on education of children among households in which there are children below 15, while 82 percent of respondents had children attending school in the previous four weeks in the comparison group, this is 73 percent of respondents in the intervention group (difference significant at 10 percent). This impact is not robust to different specifications (see Table A4.18) and seems driven by two specific intervention communities facing particularly high threat, including school demolition.

Overall, there were no significant differences detected between the intervention and comparison groups in terms of the other six characteristics of transformative capacity (including access to agricultural or grazing land, which is also considered an indicator of absorptive capacity, see Table 6.14).

However, we observed an impact among women on women’s political role: a greater proportion of women respondents from the intervention group agreed with the statement ‘Women are as good as men as political leaders’ (while the impact is not statistically significant [and close to 0 among men]). On the contrary, the impact of the project on women’s participation in community group is not statistically significant and 0, but a significant and positive impact is observed among men (of 14 percentage points).

Finally, while the project is not impacting the ability of respondents to decide for themselves within the household, whether to travel outside the community or participate in community activities, a strong gender difference is observed. In the comparison group, 25 percent of women decide for themselves and we estimate the gender difference to be of 74 percentage points, which indeed reflects the gender norms in Bedouin society which constrained some of the project activities.

Table 6.18: Indicators of transformative capacity

	Literacy/ education of children (%)	Ability to decide for oneself movement and participation in community activities (%)	Participation in community groups (%)	Control over income from activities one participates in (%)
Overall				
Intervention mean	73.30	50.97	24.12	34.24
Comparison mean	82.41	50.78	16.66	21.78
Difference	-8.9* (4.8)	0.2 (4.5)	7.5 (5.3)	12.5 (8.8)
Observations (intervention group)	206	257	257	257
Observations (total)	510	644	644	644
Testing for differential impacts				
Gender effect in the comparison group – men compared to women	-13.3*** (3.1)	73.8*** (2.8)	-3.6 (5.4)	1.0 (4.9)
Impact of the project among women	-11.4*** (3.4)	-1.2 (3.8)	-0.0 (4.1)	11.6 (7.9)
Differential impact for women and men	8.8* (5.1)	0.7 (8.4)	14.3** (6.2)	3.6 (7.2)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

Table 6.19: Indicators of transformative capacity (continued)

	Belief in collective action's effectiveness (%)	Opinion on women's political role (%)	Opinion on acceptability of violence inside the household (%)
Overall			
Intervention mean	63.81	36.33	64.98
Comparison mean	39.56	24.86	70.53
Difference	24.3*** (7.7)	11.6 (7.4)	-5.6 (5.8)
Observations (intervention group)	257	256	257
Observations (total)	644	642	644
Testing for differential impacts			

Gender effect in the comparison group – men compared to women	-7.8 (5.9)	-8.8 (6.7)	-1.7 (10.0)
Impact of the project among women	27.7*** (7.1)	20.4** (8.3)	-11.9 (7.4)
Differential impact for women and men	-9.2 (9.0)	-23.0*** (8.4)	15.6 (11.6)

Standard errors in parentheses, clustered at the community level; * p < 0.1, ** p < 0.05, *** p < 0.01; PSM estimates are bootstrapped with 1,000 repetitions; differential impacts are tested through PS weighted regressions with robust clustering at the community level.

7 CONCLUSIONS

7.1 CONCLUSIONS

This Effectiveness Review investigated the impact of the project 'From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territory', which aimed to manage the enduring humanitarian emergency faced by Bedouin communities in the E1 area through building different protection mechanisms as a way to build resilience. The review investigated the impact of community-, household- or individual-level activities on the resilience capacities of women and men. While the review draws from Oxfam's framework for resilient development, and in particular *The Future is a Choice* (Jeans *et al.*, 2016), and the *Gender Justice in Resilience* guidelines (Sotelo Reyes, 2017), the project itself was developed before the publication of these frameworks, and its design focused on improving protection around three key areas at community level: supporting animal health, rehabilitating protected rangelands and strengthening community-based legal protection mechanisms. The review investigates the impact of this cross-sectorial approach.

As a result of the project, in the last three years, more men have received training or information on animal health. In the comparison group, 6 percent of men received training or information on animal health, against 12 percent as a result of the project (difference significant at 10 percent). No impact is observed among women. While we consistently observed no impact of the project among women respondents on knowledge of animal health, assessed through five statements, we observed a positive impact among men respondents. This reflects the gender norms at the time of the review in Bedouin society: men are considered responsible for livestock and livestock health expenditures, and women's mobility and participation in community events organized by external actors are restricted, which led to men being the voluntary participants of veterinary training in the setting of this project. Specific strategies would have to be deployed to involve women in such training, and that will require a better understanding of gender roles in livestock care.

Overall, in the intervention group, slightly more than half of the respondents had access to veterinary services for their livestock (while almost two thirds had any livestock), a year after the end of the project. Access to veterinary services was the same in both groups. According to men respondents, in 2017 the project improved the share of respondents having access to veterinary services significantly. Note that the project focused on three vaccines, and the review did not go into the details of the different vaccines. However, sustained vaccination behaviours are critical for vaccines to have a long-term impact. At time of the survey, rates of vaccination were high in both groups, and we measured a significant impact of the project on vaccination of sheep (vaccinated in the last 12 months), but no impact of the project on vaccination of goats.

The land rehabilitation component of the project, which focused on a few communities, was challenging: while the project led to the rehabilitation of a total of 432 dunums of protected rangeland, the Israeli Civil Administration issued an eviction order against 287 dunums, and the protected rangeland of one community had to be unfenced as a result. We do not measure significant impact of the project on home-production of fodder or on usage of water harvesting for animals or access to grazing areas.

As a result of the project, respondents are significantly more aware of the existence of protection committees or sub-committees, and more likely to participate in such (sub-)committees. These effects are stronger for men than women. Note that overall and on average, the share of respondents participating in such (sub-)committees is low – 11 percent. These effects are driven by two communities in which the protection committees

were formalized as part of this project, which also are two communities facing particularly strong threat of displacement. In December 2017, some community members were invited to participate in training on their rights and legal procedures and the project team gave specific attention to inviting women. The project was successful in improving access to training or information on rights or ways to document land usage among men. We did not observe a measurable impact among women. In the intervention group, the respondents who recalled having participated in such training were more likely to already be involved in community groups in 2015. Both the impact result among women and the characteristics of those who recalled accessing training or information raise questions around the targeting of this activity, bearing in mind the project resource constraints. Moving forward, how could the participation of community members who are not already involved in community institutions be facilitated? And in a setting where gender norms strongly constrain women's participation in public meetings, how could their participation be facilitated?

On average, respondents identified correctly two statements out of four related to their rights. However, the project seems to have had a negative effect on knowledge for both women and men (in the intervention group one out of three respondents identified incorrectly one more statement than in the comparison group). On the one hand, this result is driven by one statement in particular. On the other hand, this effect is reduced when excluding two specific communities facing particularly high threat of demolition and displacement (which the project supported through the creation of community protection committees). Hence, one hypothesis is that in spite of information and training received a year ago by a group of community members on international law, rights and documentation of land usage to protect one's rights, the pressure and daily threat experienced by the people in the E1 area, compared to other communities at risk of displacement, seems to affect their belief in their rights and Israel's rights. In addition, the project did not impact the average number of correct answers from respondents on legal procedures (two correct responses, on average, out of six). It is noted that men tend to give a significantly higher number of correct answers than women to the statements both about rights and about legal procedures.

Overall, there is no evidence of the project having a significant impact on resilience assessed through a multi-dimensional index reflecting the three capacities of resilience. We measured an impact of the project on transformative capacity (significant at 5 percent). Note that women scored significantly lower than men on the resilience indices (the overall resilience index and each capacity index).

On absorptive capacity, while there is no clear evidence of impact, the project does seem to have had an impact on a few indicators. Indeed, a greater proportion of intervention respondents had confidence that the community would be able to protect itself in the case of a demolition/stop order being issued. However, as mentioned above, we observed a negative impact on respondents' knowledge of their rights as Bedouin living in the West Bank. In addition, we observed an impact on one characteristic that is not related to the project logic. We measured a significant impact of the project on social support networks, with a greater proportion of respondents in the intervention areas reporting either giving or receiving financial support from other households in the community at least twice during the previous 12 months than in the comparison areas. Such impact was not anticipated. There is no clear evidence of the project building access to improved water sources, which were available all year round (and intervention and comparison groups were very different on access to piped water on premises in 2015). There is no clear evidence of the project building access to remittances (which is also a characteristic of adaptive capacity). No measurable impacts were observed on livestock vaccination (for all types of livestock), income diversification, access to drinking water, access to agricultural or grazing land (also considered an indicator of transformative capacity), knowledge of legal procedures, or knowledge of animal health.

As mentioned above, there is no evidence of the project building adaptive capacity, or each characteristic of adaptive capacity: ownership of fungible livestock, productive asset ownership, access to improved sources of water for cultivation or livestock, dietary diversity, understanding of climate change, control over the decision to sell livestock, availability of food, and attitude towards change. However, among women respondents, we observed an impact on 'understanding of climate change', which was not anticipated as part of the project logic.

The overall impact on transformative capacity is driven by a significant impact of the project on belief in collective action's effectiveness, observed among both women and men respondents. While there is no evidence of impact of the project on women's participation in community groups, a significant and positive impact is observed among men. We do, however, observe a positive impact of the project among women on their political role. Such impact was not anticipated as part of the project logic. There is no clear evidence of the project having an impact on education of children. In addition, there were no significant differences detected between the intervention and comparison groups on the other characteristics of transformative capacity: ability to decide about one's own movements and participation in community activities, control over income from activities one participates in, and opinion on the acceptability of violence inside the household.

Finally, this review was also an opportunity for community leaders and survey participants to share feedback. While the former was formalized through a community form, the latter was informal and shared with the survey team. Looking forward, community leaders highlighted the need for electricity and water services. In hindsight, however, feedback from community members stressed the lack of clarity in the project design and implementation, including in the prioritization and choices made due to resource constraints, while having high expectations due to participatory needs assessments and the high threat and needs faced. Feedback also stressed a lack of clarity on the channels available to contact Oxfam staff. Finally, confidentiality of the data shared throughout the project, from need assessment to this review, was a concern of respondents because of security reasons. Thus, another key result of this Effectiveness Review is the need for Oxfam to review its ways of working with Bedouin community members in the West Bank. From a resilience perspective in particular, working with community members in ways that are empowering is indeed critical in order to move from dependencies to capacities.

7.2 PROGRAMME LEARNING CONSIDERATIONS

Place the understanding of gender norms and roles and power analysis at the core of programme design and implementation

Gender norms constrain the roles, responsibilities and opportunities of women and men, of different age, among the Bedouin people living in the West Bank. The data gathered through this review show strong gender differences within the household around decisions to sell livestock, or decisions for oneself to travel or participate in groups. It also shows gender differences when it comes to access to information related to reception of legal support or knowledge of rights and legal procedures in the absence of the intervention. In addition, the project significantly fostered participation in training or sensitization of men (animal health prevention training or rights and land usage documentation training), but not of women. The project had a stronger impact among men than among women on participation in protection (sub-)committees. Some of the results in the review also show that when participation was voluntary, people who were already involved in community groups in the past were more likely to participate than those who were not. This highlights the need to place gender and power analysis at the heart of the development of the most appropriate mechanisms to foster participation of women, and of women in different positions of power within the

community, as well as of community members who are further away from community institutions or more marginalized.

More generally, transforming gender relations to bring about similar opportunities to women and men will enable the resilience of the full system. This will require changing gender norms. Specific attention to these norms at programme design and throughout implementation is needed to develop appropriate activities.

Develop a context-specific understanding of the three capacities of resilience as a means to adopt a more holistic approach to resilience building

Structural and recurring constraints leave Bedouin community members living in the E1 area in a state of constant coping, and thus projects have focused on immediate response and support to different coping mechanisms. This project tried to go further, through a cross-sectorial protection approach. Oxfam's resilience framework puts emphasis on the building of absorptive, adaptive and transformative capacities but was published after this project started. This review brought this framing and reconstructed a posteriori an imperfect understanding of what the three capacities mean.

Understanding what the three capacities of resilience mean in the context of Area C of the West Bank, and among the Bedouin people – marginalized within Palestinian society and at particular risk of displacement – would contribute to developing more holistic resilience programmes. In particular, what is the space available for adaptation and transformation in this setting, and what is Oxfam and partners' role in enabling or supporting it?

Developing an understanding of the capacities and opportunities for adaptation and transformation in this setting will not only enable developing strategies to bring about resilience, but also enable the monitoring and evaluation framework to be centred on the three capacities of resilience and how the project contributes to their enhancement.

Consider strengthening accountability and feedback mechanisms

Acknowledging people's agency and building equal relationships is core to bringing about resilience. Strengthening the involvement and participation of community members (beyond community leaders in particular) at programme design and throughout the programme development and implementation is one aspect of it. In particular, feedback mechanisms could be developed and integrated into programme implementation and monitoring and evaluation systems to enable communication channels and response to feedback.

APPENDIX 1: THRESHOLDS FOR CHARACTERISTICS OF RESILIENCE

Table A1.1: Thresholds for characteristics of Resilience

Capacity	Connected to the project logic?	Characteristic	Measurement level	Definition
Absorptive capacity	Yes	Knowledge of rights as a Bedouin living in the West Bank	Individual	Respondent scores higher than the median score on rights knowledge.
	Yes	Knowledge of legal procedures, documents required for the objection to military orders	Individual	Respondent scores higher than the median score on legal procedure knowledge.
	Yes	Animal health knowledge	Individual	Respondent scores higher than the median score on animal health knowledge.
	Yes	Cattle vaccination	Household	More than half of the household's holdings of each type of livestock were vaccinated and/or de-parasitized in the last 12 months. <i>(This indicator is omitted in households that do not own any livestock.)</i>
	No	Diversification of income sources – off-farm activities and government or social benefits	Household	Any off-farm income source that can be maintained in case livestock herding is affected by shocks and stressors (casual agricultural and non-agricultural labour, regular paid employment, government or social benefits).
	No	Access to drinking water	Household	Access to improved sources of drinking water (private or public tap, through tube wells/borehole with pump/hand pump). The water is available 12 months out of 12 and the source is different from the source used in 2015.
	No	Social support network	Household	Household members gave support to and/or received support from others in the community at least twice during last 12 months.
	Yes	The household is not relying on livestock sales in case of urgent expenses	Household	HH scores positively if proportion of urgent sales is less than the mean of all HH owning livestock (13 percent of livestock). Counted as missing if no livestock is owned.
	Yes	Confidence that the community will be able to protect itself in case of demolition/stop-work order being issued	Individual	The respondent agrees or partially agrees that if a demolition/stop-work order is issued in the future, the community will be able to protect itself.
	No	Remittances	Household	Household received regular remittances during last 12 months.

Capacity	Connected to the project logic?	Characteristic	Measurement level	Definition	
	Yes	Ownership of fungible livestock	Household	The household owns at least 1 large (strictly) or at least 85 small livestock (strictly) (thresholds set as the 75th percentile of the distribution for each type).	
	Yes	Productive assets ownership	Household	The household owns at least 2 large assets or at least 4 smaller assets.	
	No	Understanding of climate change	Individual	Respondent picks 'The frequency and severity of droughts in this area continue to increase' over '10 to 20 years into the future, the weather patterns in this area will be similar to those of the past'.	
	No	Attitude towards change	Individual	Respondent picks 'We should not be afraid to try new and different livelihood activities – sometimes they are better than the traditional livelihood activities' over 'It is best to continue doing what we already know and do well, rather than experimenting with new approaches'.	
	Yes	(Improved) access to water for food or fodder production or animal	Household	Access to improved sources of water for agriculture (water harvesting and/or irrigation) or livestock (water harvesting). No irrigation in this context.	
	No	Control over decision to sell livestock heads	Individual	Respondent is involved in decisions to sell (cattle, donkey, goats, sheep, poultry). Respondent can decide by him-herself or jointly with other household members whether to sell a given animal.	
	No	Dietary diversity	Household	In the past 7 days, carbohydrates were eaten every day, protein during at least 3 days and fruit and vegetables at least 3 days.	
	No	Availability of food without concern	Individual	The respondent was not concerned about food availability in any month.	
	Transformative capacity	Yes	Participation in community groups	Individual	Respondent participates in any community group.
		No	Control over income from livestock sales and livestock products, and off-farm economic activities (petty trading, processing)	Individual	Respondent has input in some, most or all the decisions on the use of income generated from livestock raising (sale of livestock products) or off-farm activities.
No		Belief in collective action's effectiveness	Individual	Respondent picks 'Ordinary citizens can do a lot to influence the government, if they make the effort' over 'There is not much that ordinary citizens can do to influence the government'.	
No		Opinion on women's political role	Individual	Respondent agrees that 'Women are as good as men as political leaders'.	

Capacity	Con- nected to the pro- ject logic?	Characteristic	Measure- ment level	Definition
Absorptive capacity	No	Opinion on acceptability of violence inside the household	Individual	Respondent disagrees that 'Violence inside the household can be justified in certain circumstances'.
	No	Education of children	Household	Any child below 15 in the household is enrolled at school and attended school in the last 4 weeks (no matter the level of school); will be 0 for household without any child below 15 (21% of households).
	No	Ability to decide one's own movements and participation in community activities	Individual	Respondent decides alone whether he or she can travel, or whether he or she can participate in community groups, activities or meetings.
	Yes	Access to agricultural or grazing land	Household	Household has access to land for food or fodder production, or for animal grazing.

APPENDIX 2: DESCRIPTION OF THE POPULATION

This appendix presents the characteristics of the people interviewed and their household in 2015 (and at the time of the survey for a few characteristics that we assume not to have been affected by the project under review). Information about 2015 was recalled by the people interviewed.

Table A2.1: Comparison between intervention and comparison groups

	Comparison group mean	Intervention group mean	p-value	Observations	Level of significance
Respondents' characteristics					
The respondent is a woman	0.439	0.584	0.000	651	***
Member of any group in 2015	0.058	0.241	0.002	651	***
Age of respondent	38.431	38.486	0.955	651	
The respondent can read and write a simple letter – at time of the survey	0.770	0.767	0.930	579	
The respondent has primary education – at time of the survey	0.305	0.292	0.823	651	
Household's characteristics in 2015					
HH existed in 2015	0.901	0.946	0.012	651	**
House or animal shelter demolished in 2015	0.211	0.160	0.438	651	
Household was under military order in 2015	0.561	0.580	0.846	651	
HH has always lived in the same place	0.467	0.444	0.812	651	
The head was a woman in 2015	0.041	0.093	0.011	651	**
Head living with spouse in 2015	0.860	0.848	0.740	651	
HH size in 2015	6.299	5.774	0.033	651	**
HH involved in agricultural labour in 2015	0.145	0.031	0.019	651	**
HH involved in casual labour in 2015	0.401	0.475	0.397	651	
HH involved in paid employment in 2015	0.147	0.078	0.158	651	
HH received remittances in 2015	0.005	0.008	0.665	651	
HH received pension or social transfers in 2015	0.736	0.751	0.778	651	
HH was in the first 20% of the wealth distribution, in 2015	0.175	0.214	0.427	651	
HH was in the second 20% of the wealth distribution, in 2015	0.203	0.191	0.736	651	
HH was in the fourth 20% of the wealth distribution, in 2015	0.188	0.237	0.170	651	
HH was in the fifth 20% of the wealth distribution, in 2015	0.213	0.183	0.551	651	
HH received veterinary services in 2015	0.515	0.564	0.437	651	
The household owned goats in 2015	0.508	0.475	0.562	651	
The household owned sheep in 2015	0.353	0.420	0.441	651	

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	Comparison group mean	Intervention group mean	p- value	Observations	Level of significance
Number of goats owned in 2015 – winsorized at 1 percent	45.089	26.494	0.027	651	**
Number of sheep owned in 2015 – winsorized at 1 percent	28.305	28.732	0.968	651	
HH had access to grazing land in 2015	0.447	0.350	0.276	651	
Walking time to market in 2015	128.178	113.195	0.280	651	
Head and co-head's characteristics					
Age of head	40.127	40.412	0.803	651	
The head has primary education – at time of the survey	0.305	0.319	0.791	651	
The head can read and write a simple letter – at time of the survey	0.792	0.821	0.443	651	
Age of co-head	34.882	34.764	0.912	581	
Co-head has primary education – at time of the survey	0.282	0.257	0.619	651	
Co-head can read and write a simple letter – at time of the survey	0.676	0.720	0.291	583	

A collection of 29 indicators – a range of household's asset ownership (livestock, productive equipment, and household goods), and characteristics of the house – were used to construct a wealth index. An index was created for both 2018 (the time of the survey) and for 2015. It was generated under the assumption that if each of the assets and housing characteristics constituted suitable indicators of household wealth, they should be correlated with each other. That is, a household that scores favourably on one particular wealth indicator should be more likely to do so for other wealth indicators. A small number of items that had low or negative correlations with the others were therefore not considered good wealth indicators and so were excluded from the index (alpha score 0.78).⁴¹

A data reduction technique called principal component analysis (PCA) was used to produce the two indices of overall wealth. In particular, our wealth index is taken directly from the first principal component.⁴² PCA enables us to assign weights to the different assets, to capture as much information as possible from the data. Broadly, PCA assigns more weight to those assets that are *less* correlated with all the other assets, as these carry more information. By contrast, items with *more* intra-correlation are given less weight. The wealth index hence computed is a score, which characterizes the distribution of wealth in the population.

APPENDIX 3: METHODOLOGY USED FOR PROPENSITY-SCORE MATCHING

The analysis of outcome variables presented in Section 6 of this report involved group mean comparisons using propensity-score matching (PSM) when the outcome variable was not measured at baseline. The basic principle of PSM is to match each respondent living in project areas with a respondent living in a comparison area that was observationally similar at baseline and to obtain the project treatment effect by averaging the differences in outcomes across the two groups after project completion. There are different approaches to matching, i.e., to determining whether or not an individual is observationally 'similar' to another individual. For an overview, we refer to Caliendo and Kopeinig (2008).

The following sections describe and test the specific matching procedures followed for the main analysis in this review.

Estimating propensity scores

Given that it is extremely hard to find two individuals with exactly the same characteristics, Rosenbaum and Rubin (1983) demonstrate that it is possible to match individuals using a prior probability for an individual to be in the intervention group, naming this its propensity score. More specifically, propensity scores are obtained by pooling the units from both the intervention and comparison groups and using a statistical probability model (e.g. a probit regression) to estimate the probability of participating in the project, conditional on a set of observed characteristics.

Table A3.1 presents the probit regression results used to estimate the propensity scores in our context. To guarantee that none of the matching variables were affected by the intervention, we only considered variables that were measured at baseline, and only those variables that were unlikely to have been influenced by anticipation of project participation (Caliendo and Kopeinig, 2008).

Table A3.1: Estimating the propensity score on variables used for matching

	Marginal effect	Standard error	p-value
Being in the project areas			
Gender of respondent	0.11**	0.04	0.01
Member of any group in 2015	0.41***	0.06	0.00
Age of head	-0.00	0.00	0.74
The head has primary education at time of the survey	-0.01	0.05	0.86
The head is a woman in 2015	0.20	0.12	0.09
Head living with spouse in 2015	0.10	0.07	0.16
HH size in 2015	-0.01	0.01	0.23
House or animal shelter demolished in 2015	-0.10*	0.05	0.04
HH has always lived in the same place	-0.04	0.04	0.37
HH involved in agricultural labour in 2015	-0.31***	0.04	0.00

	Marginal effect	Standard error	p-value
Being in the project areas			
HH involved in casual labour in 2015	0.03	0.04	0.46
HH involved in paid employment in 2015	-0.18***	0.06	0.00
HH was in the first 20% of the wealth distribution, in 2015	0.05	0.07	0.44
HH was in the second 20% of the wealth distribution, in 2015	0.01	0.07	0.92
HH was in the fourth 20% of the wealth distribution, in 2015	0.07	0.07	0.26
HH was in the fifth 20% of the wealth distribution, in 2015	0.03	0.07	0.65
HH received veterinary services in 2015	0.09	0.05	0.06
Number of goats owned in 2015 – winsorized at 1 percent	-0.00**	0.00	0.00
Number of sheep owned in 2015 – winsorized at 1 percent	0.00	0.00	0.26
Observations	651		

Marginal effects

The construction of the wealth index is described in Appendix 2. Variables dated 2015 are estimates, based on recall data. Dependent variable is binary, taking 1 for respondents in project areas, and 0 otherwise.

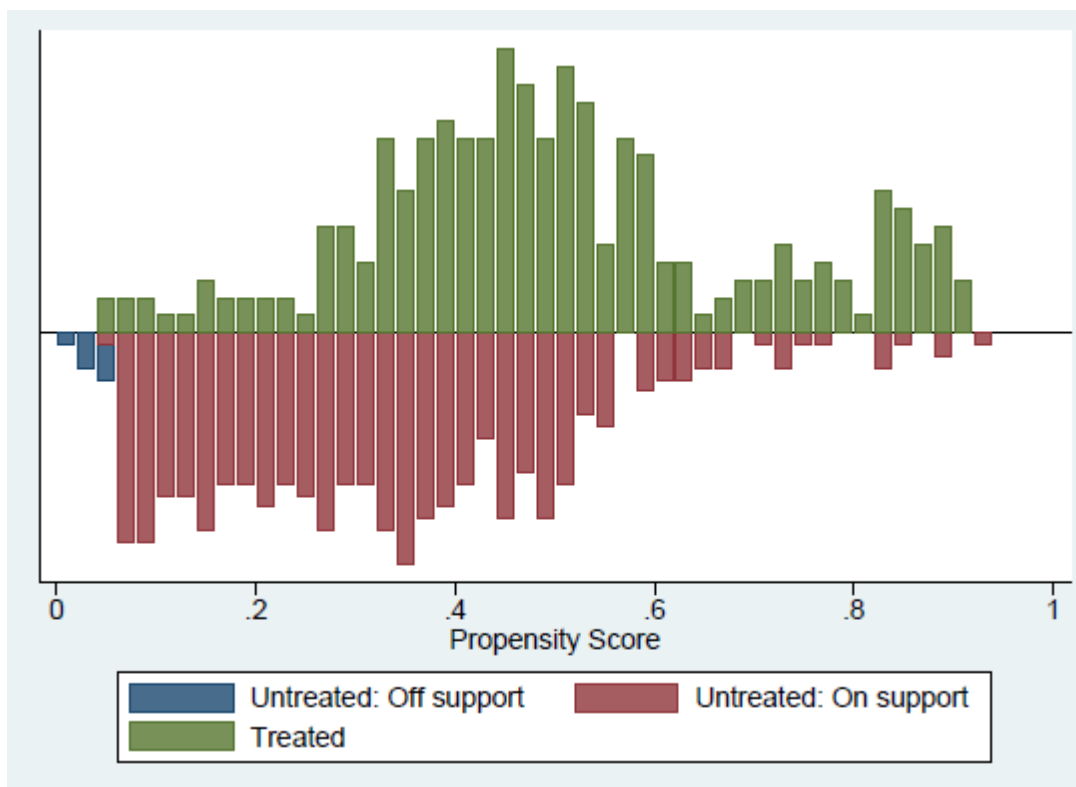
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Defining the region of common support

After estimating the propensity scores, the presence of a good common support area needs to be checked. The area of common support is the region where the propensity-score distributions of the treatment and comparison groups overlap. The common support assumption ensures that ‘treatment observations have a comparison observation “nearby” in the propensity score distribution’ (Heckman, LaLonde and Smith, 1999). Since some significant differences were found between the intervention and comparison groups in terms of the baseline and demographic characteristics (as detailed in Section 3.2.4), some of the citizens in the intervention group are too different from the comparison group to allow for meaningful comparison. We developed a minima and maxima comparison, deleting all observations whose propensity score was smaller than the minimum and larger than the maximum in the opposite group (Caliendo and Kopeinig, 2008). In this particular case, seven of the 651 citizens surveyed – all seven being in the comparison villages – were dropped because they lay outside the common support area. This means that the estimates of differences in outcome characteristics between the two groups apply to this subsample of project participants and non-participants; that is, they do represent the surveyed population as a whole (less than 2 percent of observations fell out of the common support).

Figure A3.1 illustrates the area of common support and indicates the proportion of households lying on and off the common support area, by treatment group.

Figure A3.1: Propensity score on and off common support



Matching intervention households to comparison households

Following Rosenbaum and Rubin (1983), after estimating the propensity scores and defining the area of common support, individuals are matched on the basis of their propensity score. The literature has developed a variety of matching procedures. For the main results presented in this report using a matching model, we chose to employ the method of kernel matching. The kernel matching method weights the contribution of each comparison group member, attaching greater weight to those comparison observations that provide a better match with the treatment observations. One common approach is to use the normal distribution with mean zero as a kernel, and weights given by the distribution of the differences in propensity score. Thus 'good' matches get a larger weight than 'poor' matches.

We used the `psmatch2` module in STATA using 0.06 as a bandwidth and restricted the analysis on the area of common support. When using PSM, standard errors of the estimates were bootstrapped using 1,000 repetitions to account for the additional variation caused by the estimation of the propensity scores and the determination of the common support.⁴³

Thirty communities took part in the survey. In a few communities, the number of surveys is low (three surveys is the minimum) so we combined a few clusters (depending on their geographical proximity and respecting the project exposure). Analyses are hence carried out with 26 clusters, which is relatively low, by statistical standards. In the Effectiveness Review, given that statistical methods correcting for a low number of clusters are not available for PSM models, we adopted a pragmatic approach (following Jonathan Lain's blog post of 21 December 2016). We indeed checked whether regular clustering led to reducing our standard errors, which would lead to over-rejecting the null hypothesis that the project had an impact. Regular clustering seems to increase our standard errors, as one would expect, in spite of the relative low number of clusters. For this reason, the whole analysis in this report is correcting for the clustered structure of the data.

For PSM to be valid, the intervention group and the matched comparison group need to be balanced in that they need to be similar in terms of their observed baseline characteristics. This should be checked. The most straightforward method of doing this is to test whether there are any statistically significant differences in baseline covariates between the intervention and comparison groups in the matched sample. The balance of each of the matching variables after kernel matching is shown in Table A3.2 (the estimates are provided using PS weighted regressions, clustering at the village level). None of the variables implemented for the matching is statistically significant once the matched sample is used.

Table A3.2: Balancing test on the set of covariates used for matching, after matching

	Intervention group mean	Comparison group mean	p-value
Gender of respondent	0.58	0.59	0.88
Member of any group in 2015	0.24	0.22	0.81
Age of head	40.41	41.19	0.52
The head has primary education at time of the survey	0.32	0.28	0.51
The head is a woman in 2015	0.09	0.09	0.89
Head living with spouse in 2015	0.85	0.87	0.58
HH size in 2015	5.77	5.9	0.65
House or animal shelter demolished in 2015	0.16	0.14	0.77
HH has always lived in the same place	0.44	0.42	0.86
HH involved in agricultural labour in 2015	0.03	0.03	0.91
HH involved in casual labour in 2015	0.47	0.49	0.89
HH involved in paid employment in 2015	0.08	0.06	0.54
HH was in the first 20% of the wealth distribution, in 2015	0.21	0.2	0.86
HH was in the second 20% of the wealth distribution, in 2015	0.19	0.17	0.59
HH was in the fourth 20% of the wealth distribution, in 2015	0.24	0.23	0.85
HH was in the fifth 20% of the wealth distribution, in 2015	0.18	0.22	0.6
HH received veterinary services in 2015	0.56	0.59	0.74
Number of goats owned in 2015 – winsorized at 1 percent	26.49	29.12	0.7
Number of sheep owned in 2015 – winsorized at 1 percent	28.73	29.11	0.97
Observations			644

The matching process reduces the differences between the two groups. Table A3.3 shows that all the baseline variables (or individuals' characteristics which we assume would not be affected by the project, such as age, education and literacy of respondents, head and co-head of households) are balanced after matching.

Table A3.3: Balancing test on other baseline characteristics, after matching

	Intervention group mean	Comparison group mean	p-value
Age of respondent	38.49	38.14	0.77
The respondent can read and write a simple letter – at time of the survey	0.77	0.75	0.75
The respondent has primary education – at time of the survey	0.29	0.31	0.74
HH existed in 2015	0.95	0.94	0.64

Household was under military order in 2015	0.58	0.55	0.76
HH received remittances in 2015	0.01	0.00	0.44
HH received government transfer in 2015	0.75	0.76	0.84
The household owned goats in 2015	0.47	0.52	0.42
The household owned sheep in 2015	0.42	0.41	0.90
HH had access to grazing land in 2015	0.35	0.43	0.29
Walking time to market in 2015	113.19	128.29	0.38
The head can read and write a simple letter – at time of the survey	0.82	0.78	0.35
Age of co-head	34.76	34.52	0.82
Co-head has primary education – at time of the survey	0.26	0.30	0.48
Co-head can read and write a simple letter – at time of the survey	0.72	0.65	0.22
Co-head can read and write a simple letter – at time of the survey	0.73	0.67	0.23
Observations			644

APPENDIX 4: ROBUSTNESS CHECKS

In order to check for the validity of the results presented in Section 6, additional analyses with different estimation techniques were performed. Three econometric models were used to test the robustness of the estimates presented in Section 6.

This appendix presents the three models and the results (impact estimates) for the model mentioned in Section 6 (Model 1 below), as it produced different results.

Model 1 Propensity-score matching excluding two intervention communities at particularly high risk

As mentioned in Section 2, two communities have faced particularly strong threat since the project started, including school demolition. The project has supported these two communities through helping the formalizing of the protection committee and, according to Table 2.1, five and eight sets of activities were ongoing as part of the project under review. These communities have been supported by multiple actors, and different media and actors have reported on the human rights violation they face.

Because of the specificity of the situation faced in these communities, we carried out the impact analysis on a restricted sample without them. To do so, we estimated the propensity score on the restricted sample and estimated the average impact of the project through propensity-score kernel matching.

Model 2 Propensity-score matching excluding five communities exposed to another project of Oxfam and LRC

Five communities, three in the project areas (including the two mentioned above) and two in the comparison areas were part of a one-year project implemented by Oxfam and LRC, which started in November 2015. To check if this project was driving the effects presented in Section 6, we estimated a new propensity score on a restricted sample excluding these five communities and estimated the average impact of the project through propensity-score kernel matching.

Model 3 Propensity-score weighting to test for the effect of the recent vaccination campaign conducted by PLDC

In October–November 2018, immediately before the survey for this review took place, PLDC carried out a vaccination campaign in some intervention and comparison communities. We use propensity-score weighting – following the example of Hirano and Imbens (2001) – and interaction terms to test whether the results presented in Section 6 were driven by this vaccination campaign. To do so, we estimated an OLS regression with interaction terms, weighting the observations according to the propensity score. Observations were assigned weights equal to 1 for the intervention households and $\hat{P}(\mathbf{X}_i)/(1 - \hat{P}(\mathbf{X}_i))$ for the comparison households. The variable $\hat{P}(\mathbf{X}_i)$ represents the probability of an individual being in the intervention group, given their observable characteristics, measured through the vector of matching variables \mathbf{X}_i – this was estimated in the probit regressions in Appendix 3. As per the previous model, standard errors were corrected for clustering at the community level.

It is important to note that, as with the PSM methods used in the main body of the report, these alternative models can only account for observable differences between the intervention and comparison groups. Unobservable differences may still bias the results.

While the robustness checks were run on all the outcomes presented in Section 6, we present here the results for the main tables: major differences referenced in Section 6.1,

and tables for Section 6.2. All the tables that are not presented here are available on request. The numbering of the tables below follows that of Section 6.

Table A4.1: Awareness of the existence of and participation in protection committee

	Knows that the community has a protection committee	Has regularly attended meetings of protection sub-committee in the past 12 month
Difference (standard error)	0.12 (0.08)	0.04* (0.02)
Observations (intervention group)	174	174
Observations (total)	554	554

Table A4.2: Access to training and information related to land usage and defence in the three years prior to the survey

	Respondent received training/info on rights to use/defend land	HH member received training/info on rights to use/defend land	Respondent received training/info on how to document usage of land	HH member received training/info on how to document usage of land
Difference (standard error)	-0.01 (0.03)	0.03 (0.03)	0.02 (0.04)	0.02 (0.03)
Observations (intervention group)	174	174	174	174
Observations (total)	554	554	554	554

Table A4.3: Knowledge of rights and legal procedures

	Knowledge of rights – Number of correct answers	Knowledge of legal procedures – Number of correct answers
Difference (standard error)	-0.31* (0.17)	-0.18 (0.23)
Observations (intervention group)	174	174
Observations (total)	554	554

Table A4.4: Resilience indices

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	Index of absorptive capacity	Index of adaptive capacity	Index of transformative capacity	Overall resilience index	Resilience index – mean of 3 capacities
Difference (standard error)	0.01 (0.02)	0.03 (0.03)	0.06** (0.03)	0.03* (0.02)	0.03* (0.02)
Observations (intervention group)	174	174	174	174	174
Observations (total)	554	554	554	554	554

Table A4.5: Indicators of absorptive capacity

	Livestock vaccination	Income diversification – Off-farm	Drinking water	Social support network	Sales of livestock is not the main mechanism to cope with urgent expenses	Access to agricultural or grazing land
Difference (standard error)	0.01 (0.08)	-0.03 (0.05)	0.00 (0.01)	0.20** * (0.07)	-0.06 (0.07)	0.00 (0.08)
Observations (intervention group)	127	174	174	174	127	174
Observations (total)	398	554	554	554	398	554

Table A4.6: Indicators of absorptive capacity (continued)

	HH received remittances	Knowledge of rights	Knowledge of legal procedures	Knowledge of animal health	Confidence to absorb shock (demolition or stop-work orders)
Difference (standard error)	0.01 (0.01)	-0.15** (0.07)	-0.09 (0.07)	0.02 (0.08)	0.22*** (0.05)
Observations (intervention group)	174	174	174	174	174
Observations (total)	554	554	554	554	554

Table A4.7: Indicators of adaptive capacity

From Emergency Food Security to Durable Livelihoods: Building Resilience in the Occupied Palestinian Territory - Effectiveness Review series 2018/19

	Ownership of fungible livestock	Productive assets ownership	Access to improved water for cultivation /livestock	Dietary diversity
Difference (standard error)	0.04 (0.10)	-0.02 (0.10)	0.05 (0.07)	0.09 (0.07)
Observations (intervention group)	174	174	174	174
Observations (total)	554	554	554	554

Table A4.8: Indicators of adaptive capacity (continued)

	Understanding of climate change	Decision-making power to sell livestock	Availability of food without concern	Attitude towards change
Difference (standard error)	0.16** (0.07)	-0.03 (0.06)	-0.06 (0.07)	-0.01 (0.05)
Observations (intervention group)	174	127	174	174
Observations (total)	554	398	554	554

Table A4.9: Indicators of transformative capacity

	Literacy/ education of children	Ability to decide one's own movements and participation in community activities	Participation in community groups	Control over income from activities one participates in
Difference (standard error)	-0.03 (0.07)	-0.03 (0.04)	0.01 (0.05)	0.16 (0.10)
Observations (intervention group)	135	174	174	174
Observations (total)	432	554	554	554

Table A4.10: Indicators of transformative capacity (continued)

	Belief in collective action's effectiveness	Opinion on women's political role	Opinion on acceptability of violence inside the household
Difference (standard error)	0.24*** (0.07)	0.16** (0.07)	-0.03 (0.06)
Observations (intervention group)	174	173	174
Observations (total)	554	552	554

APPENDIX 5: RISK OF BIAS TABLE

Not all quasi-experimental impact evaluations are the same. Choices made during sampling, selection of the comparison group, and at the analysis stage are crucial in assessing overall confidence in the results. Table A5.1 uses our standard framework to assess the risk of bias against eleven predetermined parameters. This framework is specifically for ex-post quasi-experimental impact evaluations. Lower overall risk provides higher confidence in the results.

Table A5.1 Risk of bias

	Title	Description	Assessment	Description
Sampling				
1	Random sampling	<p>Score LOW risk if: Sampling is conducted using probability random sampling methods on a clearly established sample frame.</p> <p>Score MEDIUM risk if: Sampling is conducted using probability random sampling methods at geographical level (e.g., village level) and using random sampling to select respondents within the geographical area.</p> <p>Score HIGH otherwise.</p>	LOW	All households in the communities were part of the survey frame.
2	Representativeness of project participants	<p>Score LOW risk if: Project participants have been involved for the entire duration of the project and have been involved in the project with the same level of exposure.</p> <p>Project participants have been exposed to a variety of different activities, some may have dropped out from some activities, but sampling is conducted on the entire list of project participants.</p>	LOW	<p>Some project activities are assumed to benefit the whole community (rangeland and cisterns rehabilitation, strengthening of community protection committee), others focus on the households (animal health support for households raising sheep and goats) and individuals (animal health prevention and knowledge of rights and legal procedures to handle orders).</p> <p>Different combinations of activities were implemented in different communities and the review focuses on</p>

	Title	Description	Assessment	Description
		<p>Score MEDIUM risk if:</p> <p>Project participants have been exposed to a variety of different activities. Sampling is conducted only among those project participants that have been enrolled for the entire duration of the project or that have been enrolled in all the activities. These are not less than 80% of the entire list of project participants OR it is clear the results apply only to a particular group of project participants.</p> <p>Score HIGH otherwise.</p>		<p>communities where 4 to 8 sets of activities were implemented (hence not estimating the average impact of the project, as presented in Section 3).</p> <p>Within communities, we focus on households who have lived in the community for the entire duration of the project until the time of the survey (both comparison and intervention groups), which led to excluding 5 percent of the surveyed respondents to the main analysis.</p>
3	Selection survey respondents	<p>Score LOW risk if:</p> <p>Identification of survey respondents is not determined by project participation (the same protocol for identifying the respondent(s) within the household is applied in intervention and comparison groups).</p> <p>The resulting selection of survey respondents is not affected by project participation (based on observables).</p> <p>Score MEDIUM risk if:</p> <p>Identification of survey respondents is not determined by project participation (the same protocol for identifying the respondent(s) within the household is applied in intervention and comparison groups).</p> <p>The resulting selection of survey respondents is affected by project participation (based on observables).</p> <p>Score HIGH otherwise.</p>	MEDIUM	<p>All community members were equally likely to be selected for an interview; within the household, head or spouse were identified as the respondent in both comparison and project communities.</p> <p>However, more women than men were surveyed in the intervention group than in the comparison group.</p>
Selecting comparison group				

	Title	Description	Assessment	Description
4	Potential for contamination (spill overs)	<p>Score LOW risk if:</p> <p>The units for comparison group are selected in geographical areas where it is not reasonable to expect the project to have had spill over effects.</p> <p>The project also implemented some activities (which are not considered the most relevant under analysis) which are expected to also have had an impact in the comparison group. (e.g., the project implemented campaigns using radio and other digital media, but these are only a minor component of the activities implemented). The report makes clear which impact is assessed (added value of other components, taking into account exposure to those minor components).</p> <p>Score HIGH risk if:</p> <p>Units for the comparison group are selected within the same geographical area as the intervention group, and it is reasonable to expect that project activities had spill over effects. (e.g., comparison observations within the same village, for awareness raising projects).</p>	MEDIUM	<p>The comparison group is made of communities under similar threat of demolition and displacement, in the same or different governorates. However, the three governorates that are part of the survey frame form a continuous and homogenous zone.</p> <p>Risks of spill over were deemed low but cannot be avoided, given the nature of activities, short-term migration or links across communities (marriages across communities for example):</p> <p>Vaccination campaigns: animals from different communities may graze in the same grazelands (although grazeland access is quite limited), and households may migrate from one community to another one with their livestock.</p> <p>Protection training.</p> <p>Training of municipality officials.</p>
5	Self-selection of project participants	<p>Score LOW risk if:</p> <p>The comparison group is exploiting an experiment or natural experiment.</p> <p>Units are randomly selected at community level in both the intervention and comparison groups.</p> <p>The selection process for the comparison group is mimicking the same selection process used by the project.</p> <p>Score MEDIUM risk if</p> <p>The self-selection is corrected during the matching procedure (e.g., controlling for group participation at baseline).</p>	LOW	<p>Project activities were in part conducted at the community level and the impact analysis will focus on the average effect in the community.</p>

	Title	Description	Assessment	Description
		<p>Score HIGH risk if:</p> <p>Project participants were selected or self-selected based on idiosyncratic or unobservable characteristics, and the selection of comparison respondents is done randomly from neighbouring geographical sites.</p>		
6	Other interventions in the comparison group	<p>Score LOW risk if:</p> <p>There are no other actors in the area (e.g., INGOs, NGOs, governmental programmes).</p> <p>Other actors are conducting activities which are not linked to the project's theory of change.</p> <p>Score MEDIUM risk if:</p> <p>Other actors are conducting similar activities linked to the project's theory of change in both the intervention and the comparison group.</p> <p>Score MEDIUM-HIGH risk if:</p> <p>Other actors are conducting similar activities linked to the project's theory of change in the comparison group only, but the evaluation purposefully chooses to compare these activities to the intervention making it clear that the impact is compared with these other activities (e.g., as a natural experiment).</p> <p>Score HIGH risk if:</p> <p>Other actors are conducting similar activities, in the comparison communities only.</p>	MEDIUM	<p>Oxfam, partners and other INGOs and CSOs have been involved in activities related to the project's theory of change. Based on the data available, the comparison group was selected to balance out the chances of having been exposed to such activities conducted by Oxfam and partners.</p> <p>A community-level form was developed and administered to document exposure to interventions.</p>

	Title	Description	Assessment	Description
		Other actors are conducting activities in the comparison communities, which are not the same, but are partially related to the project's theory of change.		
Analysis				
7	Representativeness	<p>Score LOW risk if:</p> <p>During analysis or matching procedure less than 10% of the sample in the intervention group is excluded.</p> <p>Score HIGH risk if:</p> <p>During analysis or matching procedure more than 10% of the sample in the intervention group is excluded.</p>	LOW	1% of the sample is excluded in the matching procedure, all in the comparison group.
8	Robustness checks	<p>Score LOW risk if:</p> <p>Magnitude and statistical significance of the results are approximately consistent with different econometric models.</p> <p>Score HIGH risk if:</p> <p>Results are not consistent with different econometric models.</p>	LOW	
9	Triangulation	<p>Score LOW risk if:</p> <p>Results are triangulated and consistent with other evaluation methods within the same evaluation.</p> <p>Results are triangulated and consistent with other data on the same project but from different evaluations.</p> <p>Score MEDIUM risk if:</p>	MEDIUM	Due to resource constraints, the evaluation design focused on the quantitative analysis. Results were triangulated with the project final evaluation (ARCO, 2018). Some results were consistent, and some were not; differences are discussed in the report.

	Title	Description	Assessment	Description
		<p>Results are not consistent with other evaluation methods or sources, but the differences are explained in the report.</p> <p>Score HIGH risk if: Results are not triangulated with other evaluation methods or sources.</p>		
10	Multiple hypothesis testing	<p>Score LOW risk if: Multiple hypothesis tests apply Benjamini or Bonferroni tests. The evaluation drafted a pre-analysis plan prior to data analysis and followed the plan.</p> <p>Score MEDIUM risk if: The evaluation drafted a pre-analysis plan prior to data analysis, and significantly deviated from it in the analysis, but clearly justified the changes in the report.</p> <p>Score HIGH otherwise.</p>	LOW	
11	Clustering	<p>Score LOW risk if: Clustering is applied. Clustering was tested but rejected as providing higher standard errors than non-clustering estimates.</p> <p>Score HIGH otherwise.</p>	LOW	<p>30 communities took part in the survey. In a few communities, the number of surveys is low (3 surveys is the minimum) so we combined a few clusters (depending on their being close geographically and respecting the project exposure). Analyses are thus carried out with 26 clusters, which is relatively low by statistical standards. In the Effectiveness Review, given that statistical methods correcting for low number of clusters are not available for PSM models, we adopted a pragmatic approach (following Jonathan Lain's blog post of 21 December 2016). We indeed checked whether regular clustering</p>

	Title	Description	Assessment	Description
				led to reducing our standard errors, which would lead to over-rejecting the null hypothesis that the project had an impact. Regular clustering seems to increase our standard errors, as one would expect, in spite of the relative low number of clusters.
Other				
12	Other	Any other issue reported by the evaluator.	MEDIUM	<p>It was difficult to reach the number of households targeted per community because of:</p> <p>Temporary migration in the winter of some households</p> <p>Long-term migration out of the community due to increasing pressure</p> <p>Different definition of household between OCHA dataset and the survey definition (although on average, the survey and OCHA data produces the same estimates of six household members).</p> <p>This was observed in both comparison and project areas by the survey team. However, temporary and long-term migration leads to assessing impact on a selected sample of respondents: the ones who chose not to (temporarily) migrate, or who could not.</p>

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NOTES

¹ For an overview of the volume and repartition of Israeli demolition orders against Palestinian structures in Area C, between 1988 and 2016, see the dashboard created by OCHA available at <http://data.ochaopt.org/demolitions/index.aspx?id=311650>

² The plan was initiated in 1995.

³ The August 2015 OCHA monthly report is available at: <https://www.ochaopt.org/content/monthly-overview-august-2015>

⁴ The September 2015 OCHA monthly report is available at: <https://www.ochaopt.org/content/monthly-overview-september-2015>

⁵ The January 2016 report of the Human Rights Council of the United Nation is available at: <https://reliefweb.int/sites/reliefweb.int/files/resources/G1600802.pdf>

⁶ See <https://data.humdata.org/dataset/state-of-palestine-administrative-boundaries>

⁷ <https://www.hrw.org/news/2018/04/25/israel-army-demolishing-west-bank-schools>

⁸ <https://www.ochaopt.org/content/protection-civilians-report-20-november-3-december-2018>

⁹ Using data from the ICA, OCHA estimates that 1, 098 demolition orders were issued against Bedouin Palestinian structures in Jerusalem governorate between 1988 and 2016. 17 percent of these orders led to demolition and 39 percent were on hold due to legal proceedings (see <http://data.ochaopt.org/demolitions/index.aspx?id=311650>).

¹⁰ See the 2015–2019 Livestock Sector Strategy for a presentation of the veterinary services in Palestine, a Strength, Weakness, Opportunities and Threats analysis, as well as the vision for 2015–2019, available at: <http://extwprlegs1.fao.org/docs/pdf/pal165804.pdf>.

¹¹ Allasad Alhuzail 2017 and Abu-Rabia Queder 2007 show how gender norms shape restrictions of women’s mobility and responsibilities and how these have evolved within the Bedouin society of the Negev in Israel as a result of their displacement and of Israeli policies.

¹² <https://www.hrw.org/news/2018/04/25/israel-army-demolishing-west-bank-schools>

¹³ From a statistical perspective, an ideal approach to identifying the counterfactual would be to select at random among communities that could receive the project – that is with similar geographical and social vulnerabilities – the communities in which the project will be implemented. Random selection among a big enough pool of communities minimizes the probability of there being systematic differences between the project communities and communities where the project is not ongoing, and so maximizes the confidence that any observed differences in outcomes later on are due to the project (experimental impact evaluations).

¹⁴ Risk of spillover effects was considered, but given the specificity of the situation faced by Bedouin people living in the E1 area, this was prioritized over this risk. There could be a spillover effect from vaccination campaigns, as animals from different communities may graze in the same grazeland (although grazeland access is quite limited), and households or individuals may migrate from one community to another one with their livestock. Risks of a spillover effect in the protection training, or trickledown effect of training of municipality officials, were deemed low.

¹⁵ As the campaign is fairly recent, we should not expect an impact on livestock mortality/disease. However, data on vaccination is asked separately for 2017 and 2018 in the survey to try and distinguish the different campaigns and sustainability of vaccination adoption behaviours.

¹⁶ This is because the team was made up of more women enumerators than men.

¹⁷ Note that these households were more likely to be newly formed, more likely to be in the lowest quintile of the wealth distribution in 2015, and respondents were younger, on average, than the rest of the respondents. Among them, respondents in the project community at time of the survey were more likely to be in the lowest quintile of the wealth distribution in 2015 than those in the comparison group, and they were also less likely to be in a household that owned sheep and goats in 2015, and were generally younger.

¹⁸ Another reason could be the difference between the definition of household used by the OCHA when carrying out the assessment and the definition used in the survey for this review, which led to identifying larger households than OCHA estimates because of the focus on shared livestock responsibility and care. However, the survey data estimate an average of six household members, consistently with the estimates produced by OCHA.

¹⁹ Note that Table 2.1 and Section 3.1 used the project documents' classification, in which four communities are paired (hence a total of 9 communities instead of 11 given by the survey data).

²⁰ For 17 percent of interviews it was not possible for the enumerators to be alone with the respondents.

²¹ <https://www.ochaopt.org/content/protection-civilians-report-20-november-3-december-2018>

²² While the primary focus of this review is at the household and individual levels, the analysis in this report takes into account the fact that characteristics and outcomes are linked for households and individuals in a given community. The analysis in this report corrects for this through robust clustering at the community level, thus adjusting standard errors.

²³ This approach to measuring resilience is discussed further in Hughes and Bushell (2013) and Fuller and Lain (2015).

²⁴ The tables show the coefficient, standard error and statistical significance of a propensity-score weighted regression, of a model with an interaction term. The first row shows the coefficient on the dummy variable for being a woman, the second row the coefficient for being in the intervention and the third row the coefficient for the interaction dummy variable – being a woman and in the intervention group. The regressions control for the matching variables and correct for the clustered nature of the data, at the village level. The average effect calculated on the overall sample in these tables, under the section 'Overall' is calculated through PSM model, with bootstrapped standard errors. Hence there may be differences between the results presented under 'Overall' section and under 'Testing for differential impacts' (coefficient size or statistical significance). We will comment the most conservative results.

²⁵ The statistical significance of the impact of the project among men can be tested separately.

²⁶ None of the differences between comparison and intervention groups are statistically significant, which is not surprising given that only 30 community leaders were interviewed – a small sample size by statistical standards.

²⁷ 3 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

²⁸ 5 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

²⁹ *'The misuse of drugs is one of the main issue raised by PLDC staff during the interviews: herders tend to buy and to administer drugs without the intervention of trained staff. The results are a poorer health status of livestock and the over-expenditure for drugs. One of the objectives of the training was to change this aptitude. According to what was reported by the beneficiaries 53.5% of them now call a vet before buying and administering drugs'*(p. 23, ARCO, 2018)

³⁰ Note that the Ministry of Agriculture Livestock Strategy for 2015–2019 highlights the following strategic interventions: 'Provide gender awareness, sensitisation and training for all extension service providers to explore and understand the function of livestock for men and women, the various gender roles played in the animal management, and the economic and cultural roles of livestock within the household and in the community; Encourage and support women's participation in livestock value chain activities; Sensitise male and female livestock keepers on the contribution and benefits of gender mainstreaming in livestock sector by educating and advocating' (p. 42).

³¹ 2 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³² 5 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³³ 21 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³⁴ 7 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³⁵ 8 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³⁶ 6 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³⁷ 8 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

³⁸ This is reassuring, as it suggests that the project activities did not reduce access to legal support provided by other actors (unintended consequence of different actors having limited resources and coordinated activities).

³⁹ 31 percent of respondents picked the 'don't know' option; such cases are considered 0 in the analysis.

⁴⁰ We used t-test because of the small sample size when performing the analysis in the intervention group only, and the small number of respondents who participated in training.

⁴¹ We ensured the item-rest correlation for each asset is greater than 0.1. We also ensured that Cronbach's alpha is at least 0.7, following the guidance of Bland and Altman (1997).

⁴² We followed the approach of Filmer and Pritchett (2001). In this case, the first component explains a small share of the total variance (15%), which is consistent with general practice presented in Vyas and Kumaranayake (2006), the studies reviewed by the authors consider first components that explain between 12 to 27%.

⁴³ Bootstrapping is a statistical procedure where repeated samples are drawn from the original sample and parameters, such as standard errors, are re-estimated for each draw. The bootstrapped parameter is calculated as the average estimate over the total number of repeated draws.

Oxfam Effectiveness Reviews

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