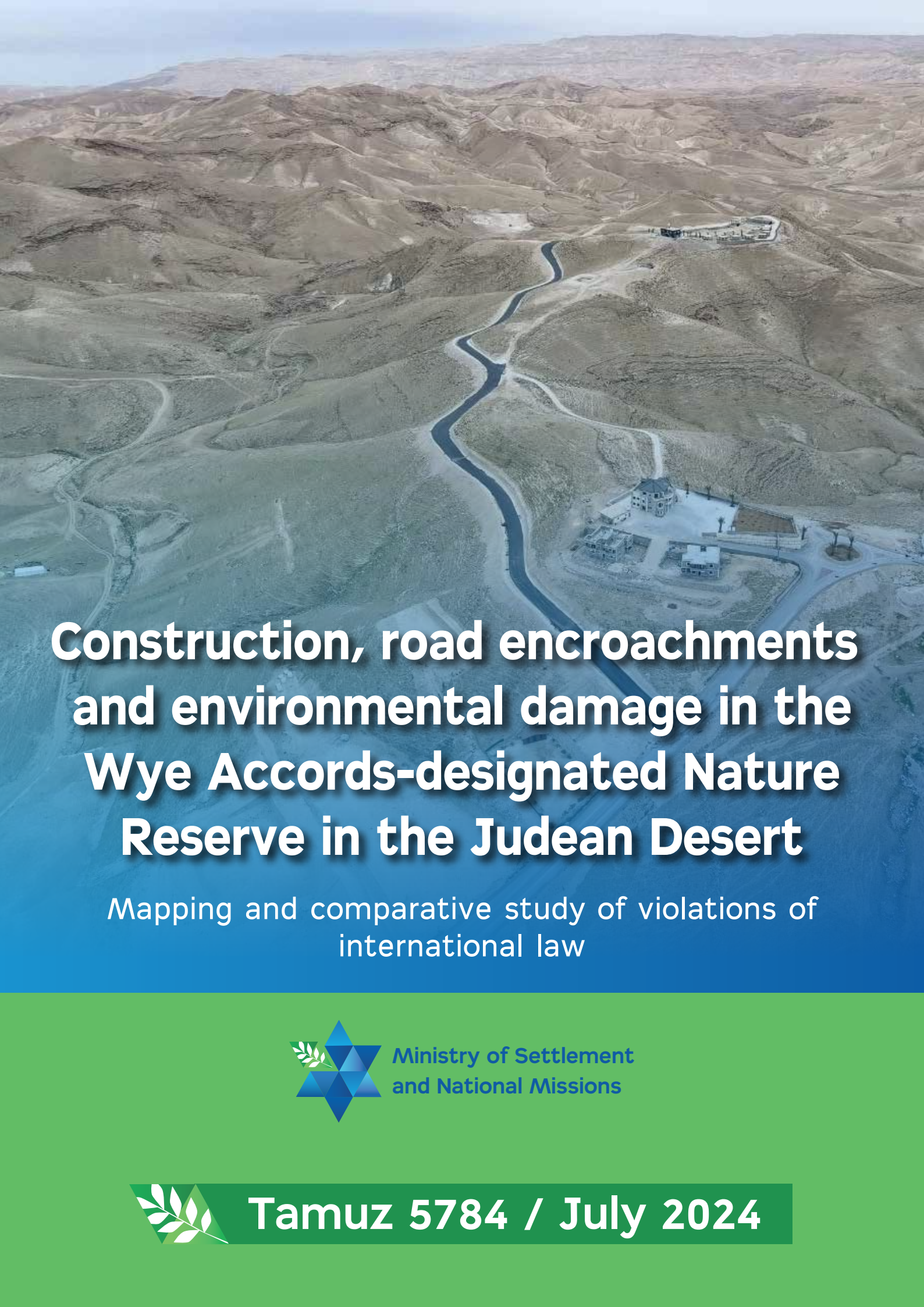


An aerial photograph of the Judean Desert, showing a winding road that cuts through the arid, hilly landscape. A small settlement with several buildings is visible in the lower right quadrant, situated near the road. The terrain is characterized by its brown, eroded hills and sparse vegetation.

Construction, road encroachments and environmental damage in the Wye Accords-designated Nature Reserve in the Judean Desert

Mapping and comparative study of violations of
international law



Ministry of Settlement
and National Missions



Tamuz 5784 / July 2024

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I. Executive Summary

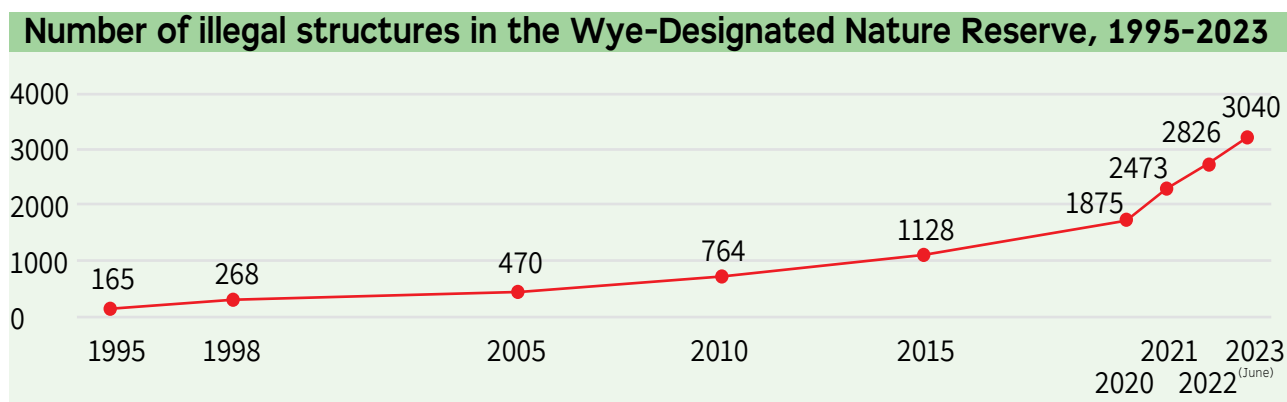
The Judean Desert Nature Reserve is an area measuring 166,539 dunams connecting the Judean Desert and the Dead Sea. In the context of the Wye Accords of 1998, this area was transferred to the civilian control of the Palestinian Authority. The Wye Accords expressly prohibited new construction and development as well as any action that could damage the natural environment or change the status of the reserve.

It has become clear that the Palestinians are in gross violation of the agreement, and severe, ongoing, irreversible damage is being inflicted on the reserve. These violations have intensified and multiplied with each passing year. Among other things, through Israeli Arab entrepreneurs, the Palestinians have introduced massive illegal construction of city-size proportions, paved many kilometers of roads and caused enormous, irreversible environmental harm to the land and environment in the reserve's delicate and unique ecosystem. It is important to note that some of these projects are carried out with the funding and support of foreign political and economic entities, including the European Union, various European governments, the Bank for Islamic Development, the Arab Authority for Investments and Agricultural Development and others. Many of the encroaching roads that enable construction in the reserve are carried out by the Palestinian Authority and implemented through local PA municipalities that border the Nature Reserve, such as Bani Na'im and Za'tara. The Palestinian Authority is responsible for water infrastructure development projects and construction of public buildings such as schools. The enormous scope of development activity throughout the reserve and the lack of any enforcement measures on the part of the Palestinian Authority leaves little room for doubt as to the Palestinian Authority's direct and indirect involvement in the decimation of the Judean Desert Nature Reserve.

The pages that follow present a study of the scope of illegal construction, road encroachments and environmental hazards in the Wye-designated Judean Desert Nature Reserve, based on a comparative study beginning just before the implementation of the Wye River Accord in 1998 through June 2023. The findings reflect an alarming reality that must be addressed.

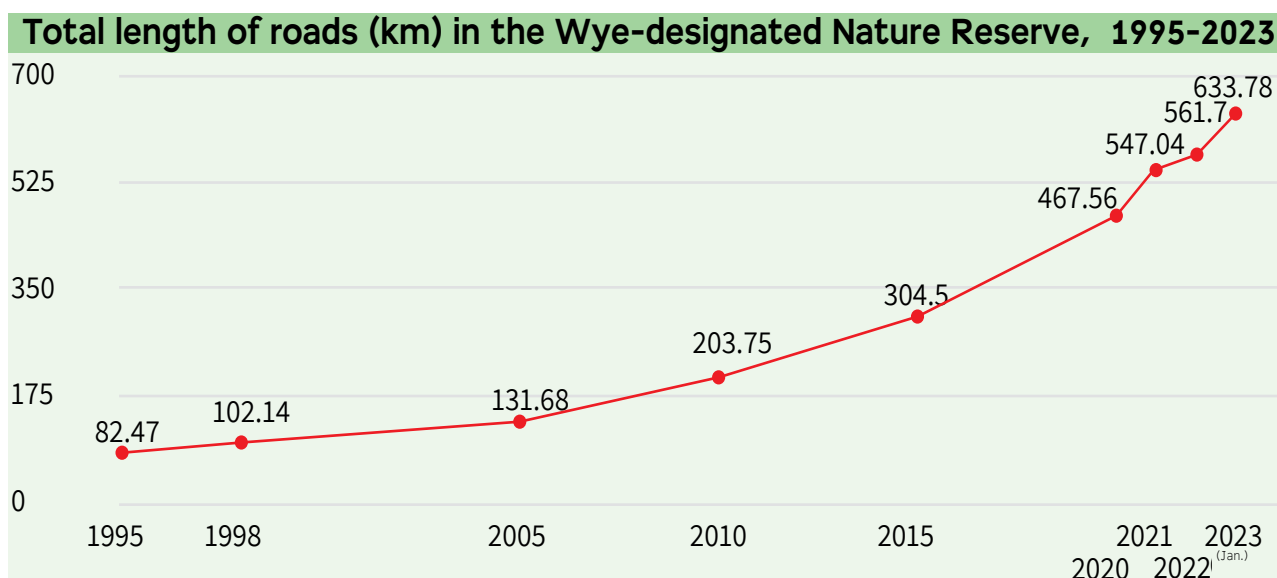
Central Findings

- According to the data presented in this report, when the Wye River Agreement was signed in 1998, there were only 268 structures in the reserve. This number should have been static, due to the stipulation that new construction in the area is prohibited. Eight years later, the **number of structures** in the reserve increased by more than 400% to 1,128 structures, and in June 2023 the number of structures has skyrocketed to 3,048.
- The **annual rate of construction** has also accelerated over time: In the years between 2011-2015, average annual construction more than doubled, to 72 structures every year. Between 2015-2020, an average of 149 structures were built in the reserve every year. In, 2021 alone, 598 structures were built. This exponential rise in rates of construction can be attributed to



the Fayyad Plan. The area occupied by illegal construction is also increasing: The 598 structures built in 2021 occupy a total of 607 dunams, more than one dunam on average per structure. Indeed, field observation of the area reveals that massive, land-intensive villas are being built in the Judean Desert Nature Reserve.

- **Road clearing** is a preliminary step to further development, residential construction and other violations in the area, including paving, laying water infrastructure and more. This crucial step, like most of the infrastructure for development in the Nature Reserve, is managed and financed by the Palestinian Authority and the European Union. Field observation of the area conducted in recent months has documented an urban road system that is being paved in the area slated by the Palestinians for development of a new city. An asphalt road, some six kilometers long, was paved from the outskirts of the PA village of Za'atra reaching deep into the Judean Desert; sidewalks, traffic circles and deceleration lanes, safety fences, traffic signs, CCTV cameras and streetlighting were also erected, as well as water infrastructure..
- According to our research, road works have increased at a pace commensurate with illegal construction: In 1998, 102 kilometers of roads were documented in the reserve; This figure should have remained unchanged under the Wye Accord ban that expressly prohibited new roads. By 2005 another 50 kilometers were added; in 2015, 304 kilometers of roads were documented, and in January 2023, **633 kilometers** of roads were documented, slashing through the length and width of the Nature Reserve.



- As a direct result of the massive construction and the paving of roads, the landscape has been altered and destroyed, causing extensive, irreversible environmental damage. Some areas have been excavated or filled to level construction sites, harming vegetation and wildlife; other areas have been turned into massive dumping grounds for tons of construction waste or as collection and incineration points for untreated domestic waste, resulting in severe soil and air pollution. Effluents and raw sewage are pouring into the Nature Reserve and polluting it even further. The enforcement void has also allowed the Nature Reserve to become a haven for illegal commercial enterprises: Illegal quarrying is causing irreversible damage to the landscape and the environment, and unscrupulous waste removal contractors are using the Nature Reserve to dump and burn commercial waste, including electronic waste and construction waste, which is trucked in from Israel in large volume. Mining waste, household waste and commercial waste that seeps into the Nature Reserve's river beds and seasonal streams is washed into the Dead Sea with the winter rains.

Additional environmental hazards were documented in the Nature Reserve: Animal carcasses are being dumped into the waste sites; damage is being caused to the wildlife by the destruction of habitats and nesting areas, dust from sawmills is washing into the desert, unique wildlife and vegetation species are disappearing as a result of hunting, quarrying and logging, antiquities are being looted, and huge dams have been built in the river and stream beds.

It appears that the Palestinian activity in the Wye Reserve is neither accidental nor random, but is planned and directed from above as a means of establishing facts on the ground, to create a string of Palestinian settlements along the entire length of the Nature Reserve, cutting off the Jewish communities of the Shomron mountain ridge from the Jordan Valley and the Dead Sea by forming a stranglehold from the east, and creating a land bridge between the village of Za'atra and the Palestinian urban concentration south of Mount Hebron that crosses through the Nature Reserve and the illegal Palestinian Authority outposts that have sprung up in IDF firing zones 917 and 918. This strategy is an important element of the Palestinian Authority's efforts to take control of Area C in general and the area east of the Alon Road in particular. It is clear that the creation of a spine of Palestinian construction on the Eastern side of the mountain range, running along the international border with Jordan, is a key Palestinian Authority objective which has strategic ramifications for the future of the State of Israel both on the security and political levels.

There are several possible avenues of intervention available to the Israeli government to prevent the continued destruction of the Nature Reserve. We recommend that the government act without further delay to contend with the rapidly deteriorating situation in the Nature Reserve. Given the blatant violation of the Wye River Agreement and based on legal opinions that allow intervention in extreme cases of failure to enforce the law and protect the environment, the State of Israel has the right and the responsibility to take immediate law enforcement measures. The tools at the Israeli government's disposal are diverse and substantial, and include direct and comprehensive enforcement activities against illegal construction of buildings and roads, quarrying, illegal waste dumping and incineration sites and other violations. In addition the Israeli government can take indirect measures that will exert economic pressure on the Palestinian Authority to fulfill its obligations under the Wye Accord, such as by suspending the removal of quarry products from Judea Samaria, enforcement of existing restrictions of entry to Israelis, including Israeli Arabs, into Area A for purposes of "economic tourism," and official ministerial appeals to international environmental tribunals, among other steps.



II. Background

1. What is the Wye-designated Nature Reserve?

The nature reserve designated in the Wye River Memorandum of October 1998 is located in the Judean Desert and Dead Sea area. Jurisdiction over the reserve, which had until that time been designated as Area C under full Israeli jurisdiction, was transferred to the civilian control of the Palestinian Authority and re-designated as Area B. The size of the reserve is 166,539 dunams, comprising some 3% of the territory of Judea and Samaria.

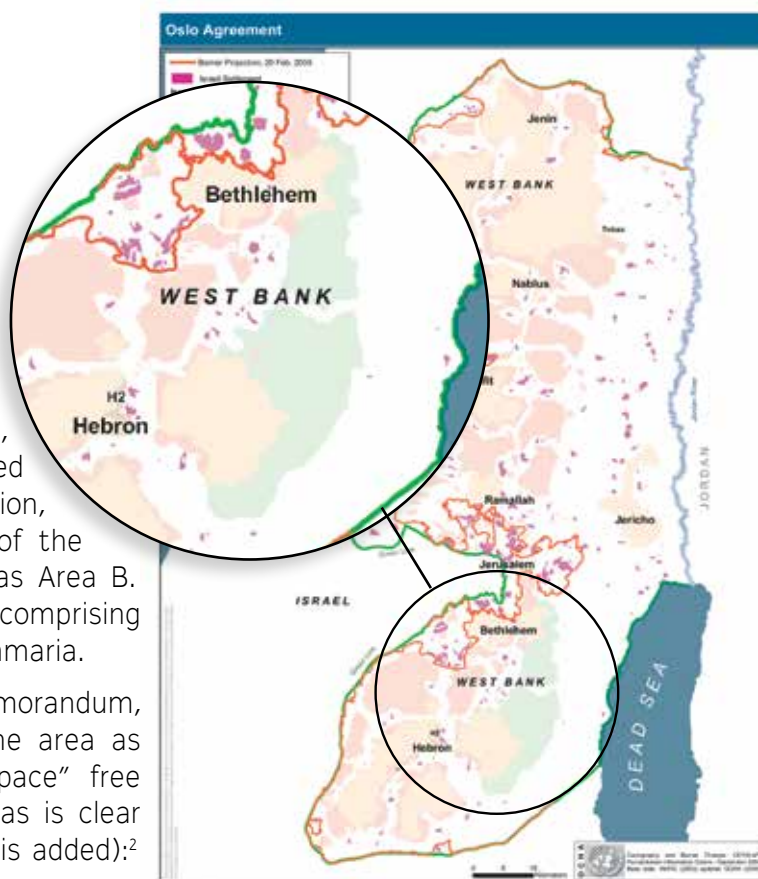
One of the primary aims of the Wye Memorandum, as stated in Article 1, is to preserve the area as an undisturbed ecosystem, a “green space” free of construction or artificial intervention, as is clear from the language of the article (emphasis added):²

“The Palestinian side has informed that it will allocate an area/areas amounting to 3% from the above Area (B) to be designated as Green Areas and/or Nature Reserves. The Palestinian side has further informed that they will act according to the established scientific standards, and that therefore there will be no changes in the status of these areas, without prejudice to the rights of the existing inhabitants in these areas including Bedouins; while these standards do not allow new construction in these areas, existing roads and buildings may be maintained.

The Israeli side will retain in these Green Areas/Nature Reserves the overriding security responsibility for the purpose of protecting Israelis and confronting the threat of terrorism. Activities and movements of the Palestinian Police forces may be carried out after coordination and confirmation; the Israeli side will respond to such requests expeditiously...”

In short, according to the Wye agreement, it is absolutely prohibited to build any new structures, pave new roads or take any action that may damage the ecosystem of the reserve or change the status of the reserve. In addition, the Palestinian police must first obtain Israeli consent for any activity in the reserve.

However, field observation of the area and analysis of aerial photographs of the reserve indicate that the Palestinians are in gross violation of the Wye agreement and are acting in complete contravention of the spirit and letter of the accord, inflicting severe and continuous damage to the reserve that intensifies with each passing year. They continue to build illegal structures on a massive scale, to lay the infrastructure for the construction of an actual city, lay many kilometers of roads and cause irreversible damage to the land and landscape that impacts the environment in and beyond the borders of the reserve itself.



The reserve areas (marked in green)¹

1 The area of the reserve on this map corresponds to the area of the reserve on the Civil Administration website: <https://bit.ly/3znnyjr>.

2 As per the Ministry of Foreign Affairs website: <https://www.gov.il/en/pages/the-wye-river-memorandum>

In a Knesset Foreign Affairs and Defense Committee hearing on May 21, 2024, the Legal Counsel for IDF Central Command- Judea and Samaria claimed that he has no knowledge of stewardship or involvement of the Palestinian Authority in the construction and development in the Nature Reserve. On the other hand, Shai Lukhi, Director of the Land Protection Department at the Mount Hebron Regional Council, presented a plan taken from the Palestinian Authority's website which provides precise GIS mapping of planned and ongoing construction of high-standard roadways from Jericho to the south of Mount Hebron, as well as improvement and expansion of existing roads. This Palestinian plan could result in the takeover of the entire Nature Reserve and as a result, the creation of a strategic buffer zone under the full control of the Palestinian Authority stretching from the Jordan Valley to southern Israel.³



Road development plan, from the Palestinian Authority GIS website, as presented by the Mount Hebron Region Council to the Foreign Affairs and Security Committee on May 21, 2024

2. Significant Elements:

The objective of this study is to create a baseline “snapshot” of the situation in the Nature Reserve immediately preceding the signing of the Wye Memorandum and to document changes in the area of the Reserve from 1998 through June 2023, focusing on three quantifiable and readily observable parameters:

A. Illegal construction

B. New roads and other infrastructure elements

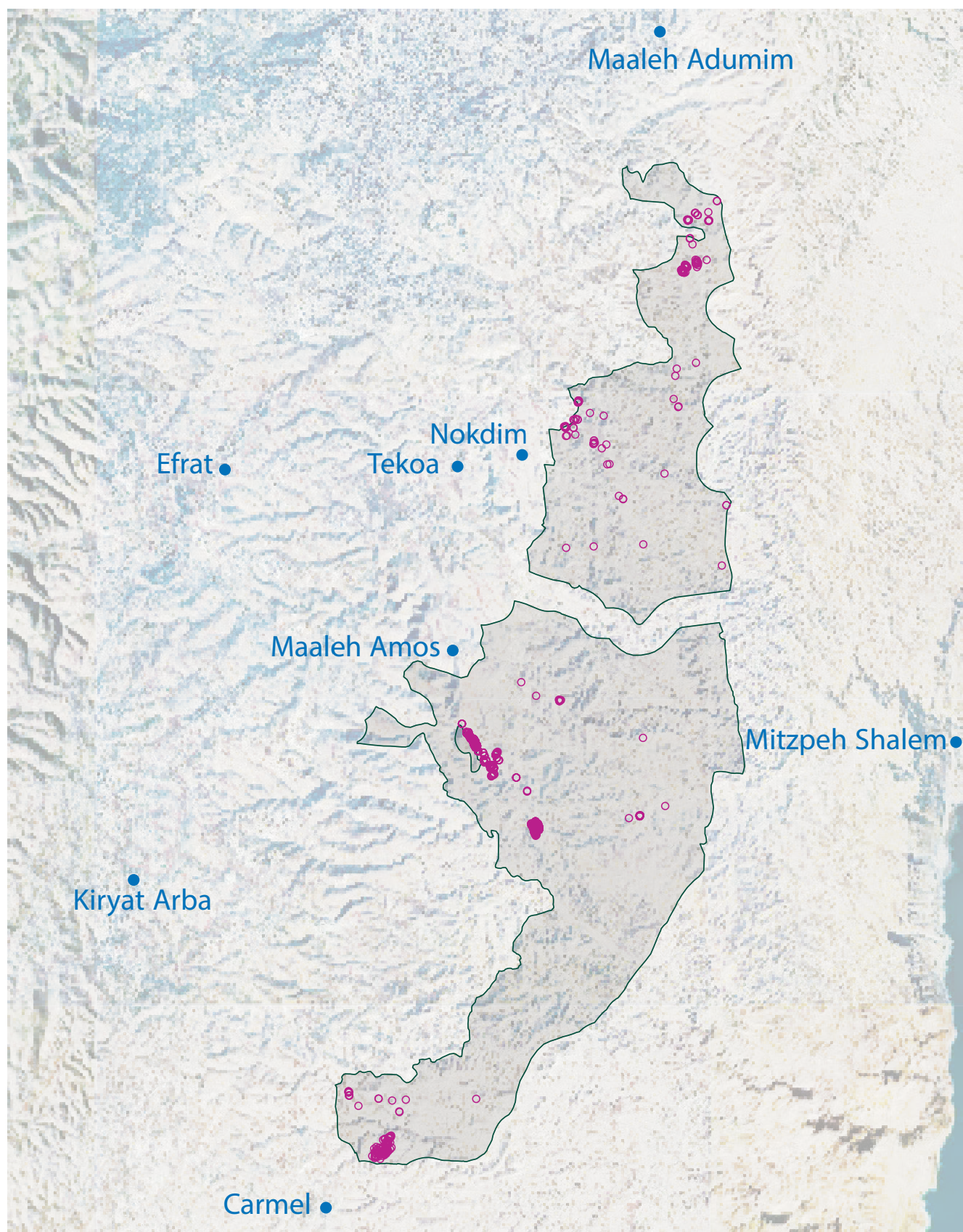
C. Environmental hazards

A. Illegal Construction:

Analysis of aerial photographs indicates that in 1998, at the time of the signing of the Wye Accord, there were only 268 structures in the Nature Reserve. This figure should have remained unchanged, as new construction was prohibited. Nonetheless, in 2023 the number of structures in the reserve has reached 3,048, an increase of more than 1,100% since 1998.

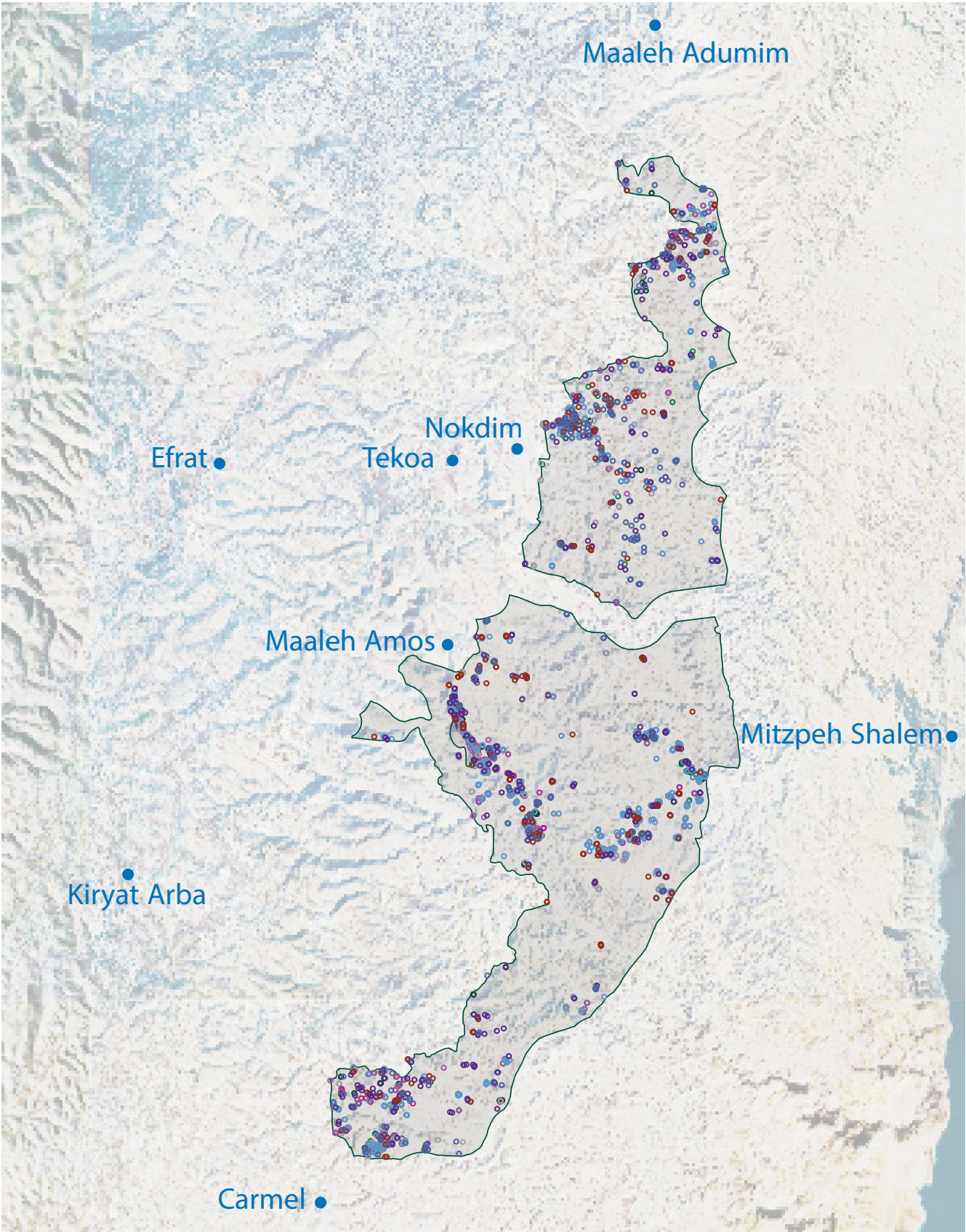
³ Foreign Affairs and Security Committee hearing, May 21, 2024 (Hebrew). <https://bit.ly/4brBUpx>

Maps of structures in the Reserve in 1998, shortly after The dots represent illegal structures.



The Reserve in 1998: **268 Structures**

the signing of the Wye accords, compared to 2023.



The Reserve in 2023: **3048 Structures**

Visitors to the Nature Reserve have repeatedly documented a unique method for encouraging illegal construction based on the “build it yourself” method: An unnamed “benefactor,” most likely the Palestinian Authority, deposits piles of foundation-stone boulders and bricks in the area, leaving stockpiles of building materials along the sides of newly paved roads. Prospective homeowners, mostly Bedouin, need only to use the free land and materials provided for them, and build. Often, they start out small and slowly expand the structures that eventually grow into full-size permanent residences.

Another significant portion of the structures that have been built in the Nature Reserve, particularly the newer structures, are huge villas built on a grand, lavish scale, situated in the center of carefully developed and well-maintained compounds on large plots of land. An increasing number of these structures are connected to electrical lines.



A pile of cinderblocks and roadside stockpiles of construction materials



The same “pile of cinderblocks” soon forms the frame of a large structure



Massive estate, paths and a paved road



Villa, road and traffic circle





The same villa, several weeks later: Construction has progressed, the area continues to be developed, neighboring villas are under construction and a new road has been paved.



Buildings in the reserve are powered by electricity.

B. Paving New Roads and Laying Down Infrastructure

Our mapping project, which was conducted through the interpretation of aerial photographs and supplementary field investigation, also sheds light on widespread encroachment of roads on the land of the Nature Reserve, which is a preliminary step for the illegal construction and other violations in the area: paving, laying water and electricity infrastructure and more. The scope of the activity, its excessive cost and its governmental characteristics indicate that it, like most illegal construction, is directed and financed by a political entity – the Palestinian Authority – and not by private developers or local residents.

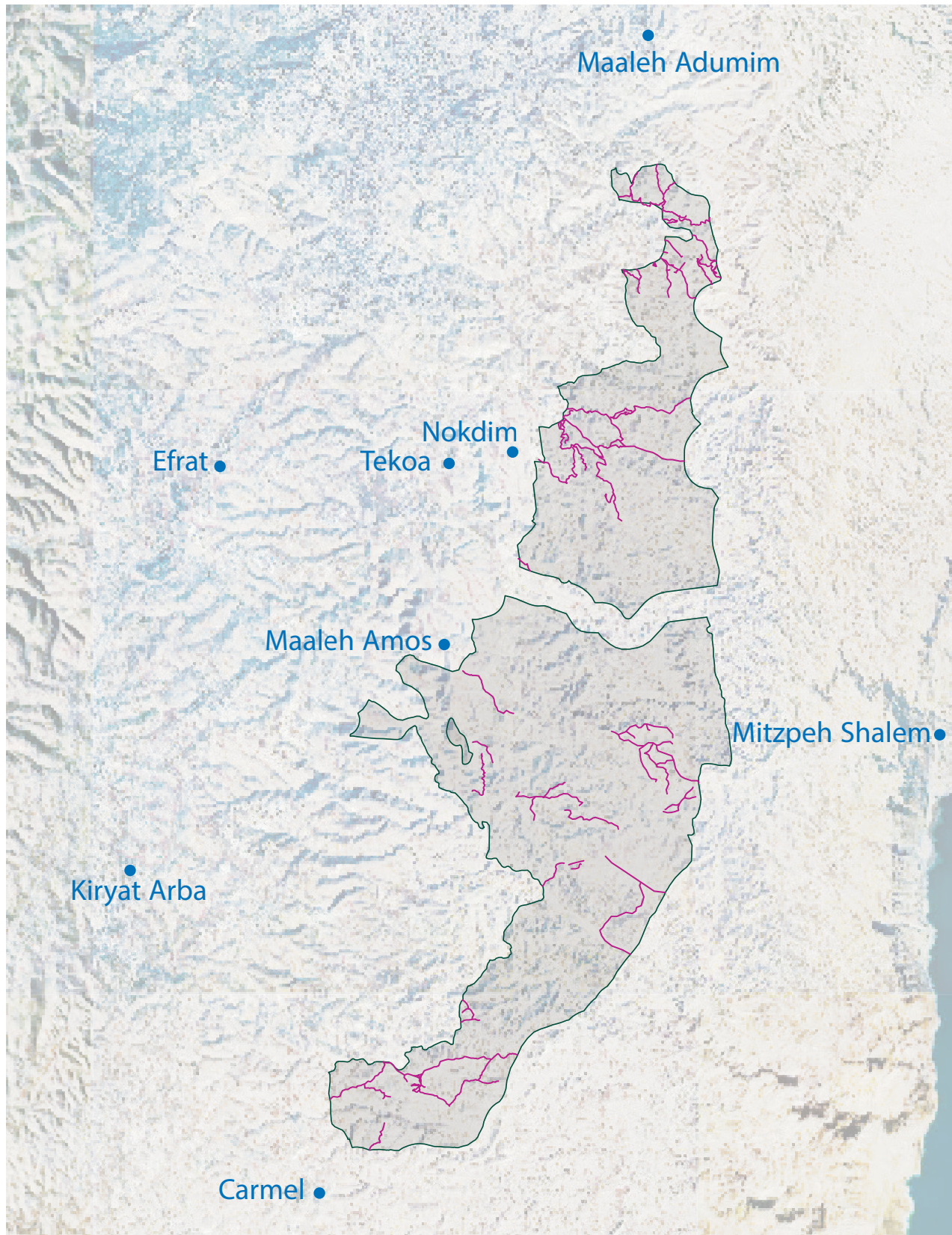


A network of roads in the Judean Desert



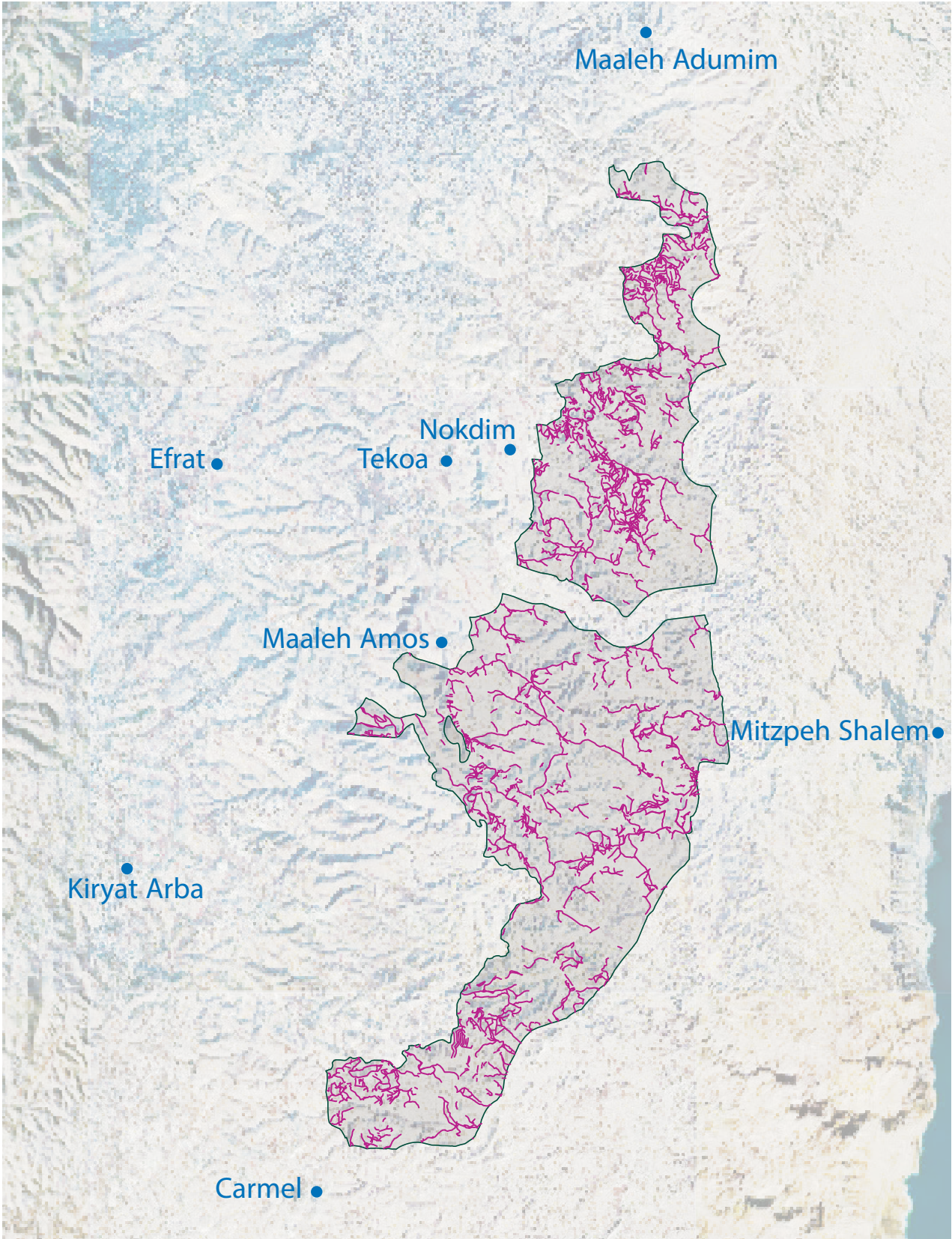
Road works, quarrying, clearing and preparing construction substrata and foundations in the Nature Reserve

Road maps of the Nature Reserve in 1998, shortly after Pink lines mark roads that have been carved into the



The Nature Reserve in 1998: **102 km of roads**

the signing of the Wye Accords, compared to 2023.
Nature Reserve.



The Nature Reserve 2023: **633 km of roads**

In fact, much of the road development in the area is carried out by the Palestinian Authority and implemented through local authorities bordering the territory of the reservation, such as Bani Na'im and Za'tara, among others. It is also important to note that some of the infrastructure projects, such as the construction of dams and the development of water delivery infrastructure, are carried out with the funding and support of foreign political and economic entities – such as the European Union and various European countries, the Islamic Development Bank, and the Arab Authority for Investments and Agricultural Development.

During 2022-2023, there was a marked intensification of Palestinian activity in the Nature Reserve. In the area where the Palestinian Authority is apparently planning to build a city, an asphalt road, some 6 kilometers long, was paved deep into the desert, from the edge of the village of Za'atara into the Judean Desert Nature Reserve, complete with sidewalks, traffic roundabouts, speed bumps and extensive infrastructure work for the water system.

C. Environmental Hazards

As a direct result of the massive construction and paving of roads, the landscape of the Nature Reserve has been altered to the point of destruction, causing extensive and irreversible environmental damage. The Reserve is now scarred by mining sites, dumping sites for excess building materials, and extensive areas that have been leveled for construction, transport and infrastructure. These topographical changes and destruction of the landscape also directly affect the natural habitats of the wildlife and botanical life, some of which are unique to the Nature Reserve ecosystem,⁴ and have created barriers that prohibit the passage of animals through the valleys and across the roads that have been paved in the Reserve.

Additionally, in the absence of infrastructure for waste removal and sewage, the residents of the illegal structures dump waste in the desert, from household garbage and furniture to construction debris, which becomes a permanent fixture of the landscape. Household garbage is generally burned by the Arab residents, sending pillars of toxic black smoke into the air and harming the health of the Israeli and Palestinian residents in the area alike. Liquid waste effluents and untreated sewage are absorbed into the soil, polluting the soil and running off with the winter rains to the Dead Sea, where their impact is even more dire. These phenomena are difficult to detect in aerial photographs, but they are an intrinsic and unavoidable offshoot of the phenomenon of illegal construction that has run rampant in the desert nature reserve.

Another outcome of the PA's failure to protect the Nature Reserve is the operation of commercial polluters, including illegal mining operations and dumping and incineration sites for commercial waste including electronic waste and construction waste that is trucked into the Reserve. The Judean Desert, like Judea and Samaria more generally, have become the neglected backyard of the State of Israel, where massive quantities of refuse originating in the sovereign territory of the State of Israel crosses the "green line," where enforcement is lax and environmental law is riddled with gaping holes. One of the main conduits is the Mazmoria checkpoint in East Jerusalem, a few minutes' drive from the Wye-designated Nature Reserve, where dumping circumvents more costly waste treatment under regulations in force in Israel. The air pollution created by these sites is particularly severe and often reaches the Herodion Area communities in eastern Gush Etzion.

Runoff and effluents from mining waste, household waste and commercial waste flow through the river channels and washes into the Dead Sea with the winter rains, leaving a trail of toxic pollution. The murky flow also carries hundreds and thousands of pieces of plastic and other household through the river channels on the way to the Dead Sea.

⁴ Hanan Greenwood, (Hebrew) "Out of sight: the new city that the Palestinians are building in the heart of the nature reserve," Israel Hayom, 31.5.2023. <https://bit.ly/4fO9poG>.

The list of environmental hazards found in the reserve has continued to grow over years of non-enforcement and purposeful abuse: animal carcasses are dumped in the waste sites and cause the spread of disease; decimation of animal habitats and nesting grounds by quarrying and sawmill dust, destruction of the rich and rare desert vegetation and prevention of new growth; the wildlife and vegetation of the Nature Reserve are being threatened with extinction due to hunting and logging by the people who have taken up residence in the area; antiquities theft, although not unique to this area, is particularly egregious in the environs of the Herodium.

A troubling new phenomenon has become a major source of environmental damage: construction of dams along the course of the desert streams, including the “Bani Na’im” dam – a huge illegal dam erected by the Palestinian Authority’s Ministry of Agriculture at a cost of approximately



A dam that prevents the flow of the stream



Discarded tires in the heart of the Nature Reserve



Waste from construction in the desert area near Za'tara



Incineration of commercial/electronic waste unloaded from a truck. The airborne smoke and pollution impact a large span of desert and engulf the communities of the Herodian region, several kilometers away.

\$600,000⁵, financed by the European Union, the Islamic Development Bank, and the Arab Authority for Investments and Agricultural Development⁶.

The dams cause enormous and irreversible damage to the streams themselves, to the wildlife that is deprived of its water source downstream, and to the entire delicate ecological fabric of the desert.⁷

3. International involvement, Palestinian activity and destruction of the Nature Reserve: Context

Palestinian activity in the Wye-designated Nature Reserve is neither accidental nor random. As has been noted, it is directed by the Palestinian Authority, and its goal is to create a band of contiguous Palestinian settlement. This activity has significant security and political implications: The Nature Reserve separates the mountain ridge between the Jordan Valley and the Dead Sea creating an eastern stranglehold and by linking the village of Za'tara and the Palestinian urban area in the south of Mount Hebron through the reserve and the Palestinian Authority outposts that exist in IDF firing zones 917 and 918. This is one section of the Palestinian Authority's larger strategic blueprint for control of Area C in general and the area east of Alon Road in particular.

In addition to dam construction, tactics that are being used to establish control of this territory include construction of schools and roadways, all of which are carried out by Palestinian municipalities that border on the reserve, such as Bani Na'im and Za'tara.⁸ Like water infrastructure projects, these construction projects are financed by the European Union or individual European governments.⁹ In addition, the staggering volume of activity throughout the reserve and its official governmental features (such as traffic signs, traffic cameras and safety fences), as well as the absence of any enforcement measures on the part of the Palestinian Authority – attest to the Palestinian Authority's involvement and oversight over developments in the Nature Reserve, both actively and indirectly.

In addition to the EU's involvement in water infrastructure projects, signs posted throughout the Nature Reserve attest to the involvement of many foreign governments in the Nature Reserve. These signs attest to direct involvement on the part of the United Nations, the European Union, Lebanon, the United States, France and Holland, and indirect involvement, through the OPT Humanitarian Fund, of Belgium, Germany, Iceland, Ireland, Jersey, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland, Great Britain, the UN and the Catalan Agency for Development Cooperation.

An illustrative example that provides incontrovertible evidence of the Palestinian Authority's involvement is the inside the Reserve to the east of the town of Za'tara, near the Herodion settlement block in Gush Etzion. A city is taking shape, and the planning and infrastructure work includes kilometers of paved roads, complete with traffic circles and deceleration lanes, attesting to official Palestinian Authority involvement. Social media is abuzz with marketing ads and hundreds of plots for construction are

5 Firas al Tawil, (Arabic) "The Failure of the Dam Project in the West Bank - Who's Responsible?" Maan Magazine, 1 May 2023. <https://www.maan-ctr.org/magazine/article/3881/>

6 Announcement of the Palestinian Ministry of Agriculture regarding the beginning of the works for the construction of the Bani Naim Dam. Website of the Watan news agency, Sep 18, 2004.

7 Tzafirir Rinat, (Hebrew) "The Judean Desert Nature Reserve, Transferred to PA Jurisdiction in the Wye Accords, Has Became an Environmental Wasteland," Haaretz, 23 June 2006. <https://bit.ly/3AAjvuB>.

8 Post by the Bani Na'im Municipality 15 February 2022 regarding road construction in "Safar Bani Na'im" in the Nature Reserve; also see post regarding paving of the road and the roundabout leading to the local mukhtar's villa, east of Za'atra and the lively discussion in the comments as to whether the project was privately or publicly funded.

9 Post by the Bani Naim Municipality 26 August 2023 regarding road construction in "Safar Bani Na'im" funded by the PA's Ministry of Agriculture and the Palestinian and the Dutch governments. For more on the European Union's involvement in illegal construction in Judea and Samaria, see the Regavim's report, "The Last Colony," February 2015. <https://bit.ly/3ATsmaA>



Palestinian Authority schools in the southern part of the Nature Reserve



A sign attesting to the involvement of the American government's USAID division in a project in the Nature Reserve, in cooperation with the Palestinian Authority



Installation of water infrastructure in the Nature Reserve, financed by the European Union: 2014



Kilometers of road stretch from Za'tara into the desert



A pumping station, part of the water infrastructure established in the Nature Reserve by the United Nations agency UNHF and the Arab Fund for Development AAA



Development and roadwork, safety fences, traffic signs, security cameras and street lighting – proof of the Palestinian Authority's involvement



Real estate brokers' sales offices in the Nature Reserve



Fences, sidewalks and landscaping on the roadsides – proof of the of the Palestinian Authority's involvement

being bought and sold by developers. The low price of land has attracted many Israeli Arab buyers to the “up and coming” new city, which in some publications is referred to as Almaleha.¹⁰

As part of the research for this report, an investigator posed as a potential buyer interested in purchasing a plot of land. He spoke at length with a marketer for one of the developers whose ads, offering plots for construction in the new city being built in the Nature Reserve, appeared both on the internet and on signs placed in the Nature Reserve itself. In a series of conversations, the marketer explained that the land being sold was managed by “The Almaleha Municipality,” which issues “building permits” - indicating the involvement of the Palestinian Authority in the construction and the decimation of the Nature Reserve.

In addition, in another conversation the marketer explained that plots of various sizes are being sold, some undeveloped and others already fully developed and ready for construction, at a cost of between 20 - 30 Jordanian Dinars per square meter. The marketer told our investigator that he is currently the owner of the property, but title will be transferred after completion of the purchase - although no official registration of ownership will be made.

Obviously, construction and road work are being carried out beyond the borders of the Nature Reserve - among others, in the Tekoa Corridor that separates the two sections of the Nature Reserve. The development of this corridor stands to disrupt the implementation of Project 912/3 - Route 80, which connects Gush Etzion to the Dead Sea.¹¹

4. Israeli enforcement in the reserve

The scope of the breach of the Wye Accords and the damage caused by this ongoing violation of international law are extensive.

There are numerous legal considerations that justify Israeli enforcement in this area, such as the special status of the land as defined in the Wye Accords and the broad, blatant and systematic scope of the breach of the Accords by the Palestinians, as well as the massive, irreversible damage that has already been caused. These legal considerations will be analyzed in greater depth in a separate report.

Environmental considerations, such as severe damage to natural assets and to the health of all residents of the area, are an additional factor justifying the State of Israel's intervention and control of environmental enforcement in the area. Environmental impacts and enforcement considerations will also be examined in a separate study.

The Israeli government has several possible avenues of intervention to prevent the continued destruction of the Wye-designated Nature Reserve. The tools available to the State of Israel are diverse and include immediate and direct measures of comprehensive enforcement against illegal construction, roads, mining, waste dumping and incineration and other violations. These tools include blocking the entry of engineering machinery, construction materials and waste. In addition to these direct enforcement measures, the Israeli government can take indirect measures that will put economic pressure on the Palestinian Authority to fulfill its obligations under the Wye Accord, such as freezing the transport of mining products out of Judea and Samaria, enforcing the prohibition against entry of Israelis, including Israeli Arabs, into Area A for the purposes of “economic tourism,” presenting formal appeals to international environmental

10 Hanan Greenwood, “Far from sight: the new city that the Palestinians are building in the heart of the nature reserve,” Israel Hayom, May 31, 2023

11 Project 912q3 No 80 - Maaleh Adumim. See the Civil Administration's website for Judea and Samaria - Roadworks Master Plans. Also see Shlomo Pyuterkovsky (Hebrew), “The Road from Gush Etzion to the Dead Sea Is Underway,” Arutz 7, 17 September 2013. <https://www.inn.co.il/news/262478>

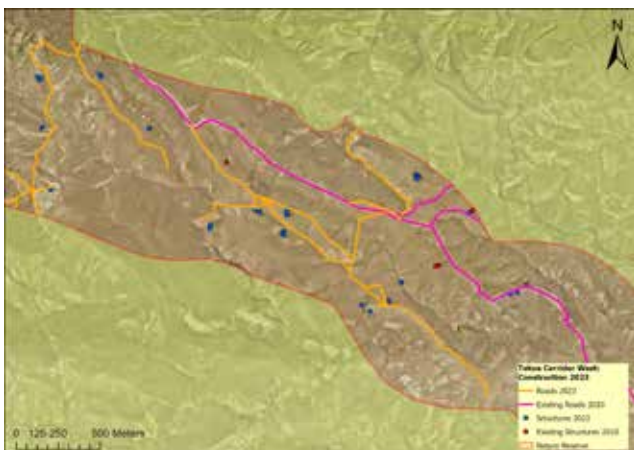
Below is the map of Route 80 and aerial photographs documenting the route, dated 1999, 2010, 2023, illustrating the encroachment of roads and construction over time



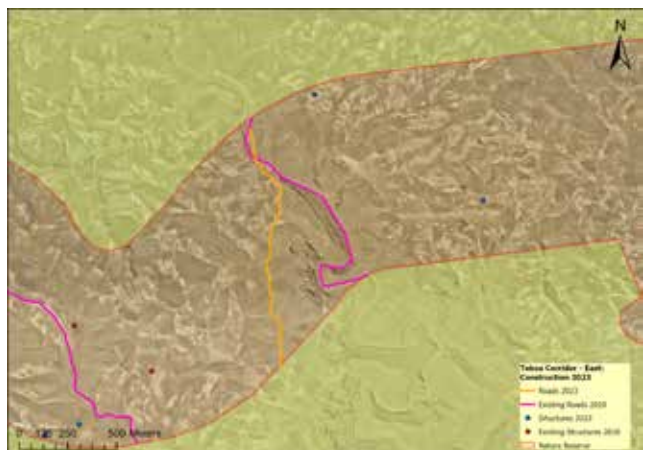
The Tekoa Corridor East + West 1999

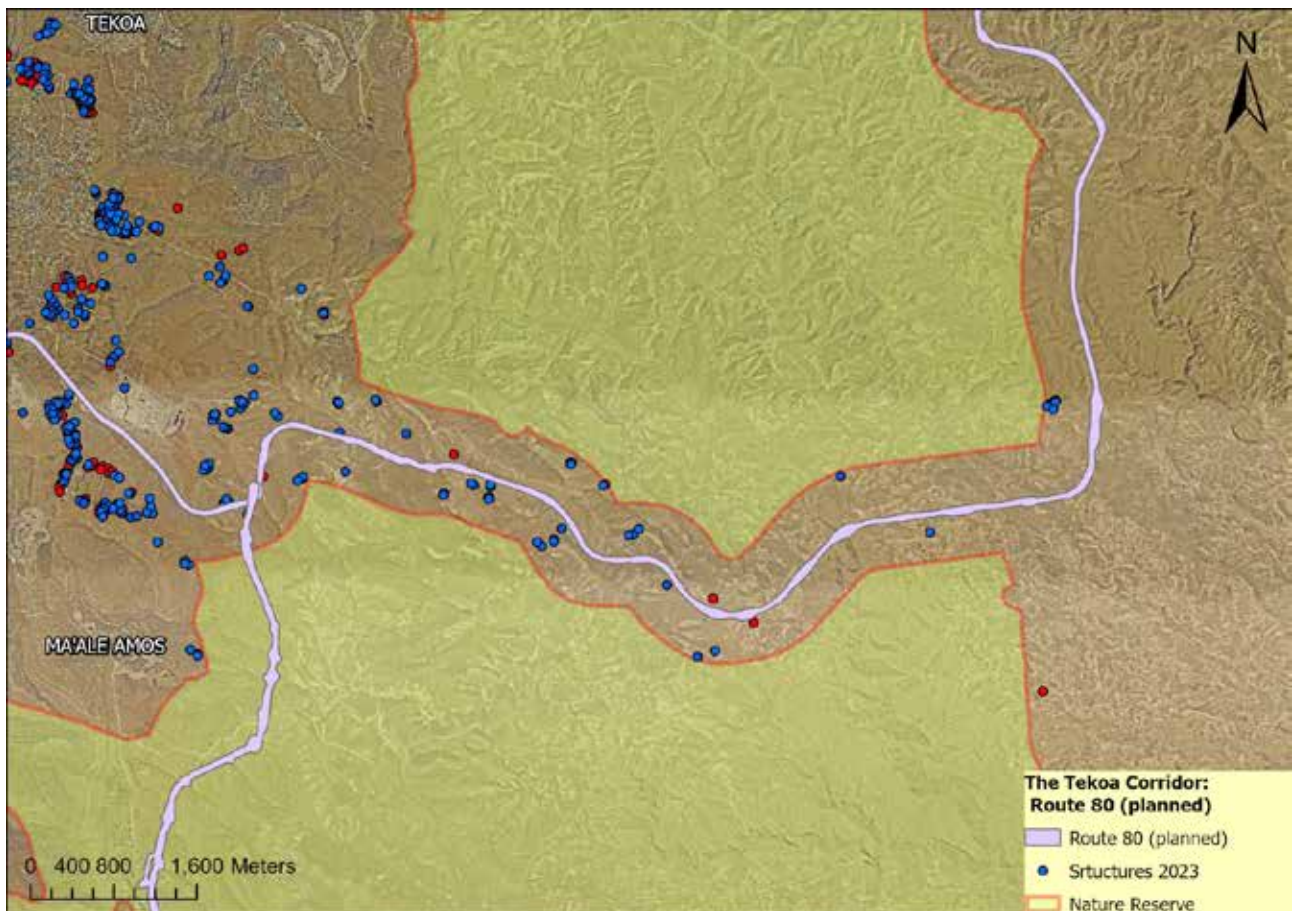


The Tekoa Corridor East + West 2010



The Tekoa Corridor East + West 2023





The Tekoa Corridor -Route 80 as planned, and illegal construction

tribunals and more.

There are legal precedents for law enforcement against environmental hazards and illegal construction in Area B and in the Nature Reserve in particular, and the State of Israel has, in fact, already done so in the past, albeit in an extremely limited way.

For example, in 2016, Israel enforced the law when charcoal kilns operating under the Palestinian Authority's jurisdiction in Area B of Northern Samaria were creating severe transboundary environmental hazards. In that case, Major General Yoav (Poli) Mordechai, Commander of COGAT (the IDF unit responsible for law enforcement in Area C), announced that enforcement would be ongoing.¹²

In 2016, a Palestinian plan to establish a huge cement production plant in the upper area of Nahal Arugot, which connects with the Wye Reserve, was exposed. The State of Israel thwarted the plan at an early stage, preventing what would have been catastrophic environmental damage.¹³

During 2017-2018, the Civil Administration acted against quarries in Nahal Arugot and Nahal Tekoa, areas specified in the Wye Memorandum.¹⁴ Surprisingly, field observation in June 2024 found that quarrying had been resumed in the Nahal Arugot area: full scale quarrying operations are destroying mountains and causing irreversible damage to the landscape and environment.¹⁵

At the beginning of 2023, the Civil Administration carried out enforcement activity against illegal construction at the archaeological site of Khirbet Turpin, located in Area B.

12 Nir Dvori, "For the first time, an enforcement operation against polluting charcoal plants in Samaria," Mako, Nov 17, 2016.

13 Elisha Ben Kimon, "Environmental threat caused by a Palestinian factory in the Judean desert," Ynet, Nov 4, 2016; Eliran Aharon, "This is how the PA is taking over the Judean Desert," Arutz Sheva, Nov 15, 2016.

14 Aviad Bartov "Civil Administration: 691 illegal buildings were built in the Judean Desert in violation of the Agreements," Mekomonet Yesha, Jul 29, 2017.

15 Hanan Greenwood, "For the first time, enforcement against Palestinian construction offenses in Area B," Israel Hayom, Jan 9, 2023.



III. Research Methodology and Findings

1. Research Methodology

The harsh reality of the situation is apparent to anyone who visits the Nature Reserve. The proliferation and expansion of construction, both in terms of the number of construction sites and in their size; roadwork and environmental hazards are well-known, documented and photographed, and even frequently reported in the media.¹⁶ On December 15, 2023, Defense Minister Yoav Galant and other Knesset members¹⁷ visited the Reserve and observed the dire situation first-hand. Prime Minister Benjamin Netanyahu made a commitment to address the issue and instructed the Security Cabinet to present data and a plan of action, to be followed by a hearing to monitor the progress.¹⁸ During the months preceding the completion of this report, the Foreign Affairs and Defense Committee held several hearings on environmental, development and security aspects of the situation in the Reserve. At a hearing on May 21, 2024, the Advocate General for Judea and Samaria was asked to prepare a position paper detailing the Chief of Central Command's analysis of the security aspects of the massive construction in the Reserve,¹⁹ which was submitted to the committee.

However, to fully assess and understand the extent of developments in the reserve since 1995, including the illegal construction, road encroachment and ecological hazards, field observation of the area is insufficient. To obtain a complete picture, a comprehensive study was carried out based on analysis of aerial photographs of the reserve.

For the purpose of research in the field of construction and roadwork, GIS (geographic information system) experts examined aerial photographs (which were obtained from the Israel Mapping Center) of the entire area of the Reserve from 1995, 1998, 2005, 2010, 2015, 2020, 2021, 2022 -2023. First, the aerial photographs of 1995 were examined. Anything that was suspected to be a structure or a road was examined by experts who decoded aerial photographs and by a GIS system to see if it was indeed a structure or a road. These points were marked and color-coded on a map, and the area taken over and/or destroyed by each structure or road. Finally, the researchers summed up the number of buildings and road encroachments found in 1995.

In the next stage, the aerial photographs from 1998 were examined. At this stage, the buildings and roads that had been identified in the 1995 aerial photographs were marked with one color, while all new structures and roads that, built in the three-year period between the two aerial surveys, were marked with another color. These, too, were tallied by the researchers, as was the area of land seized and/or destroyed for their construction. In the same manner, each of the aerial photographs were examined in ascending chronological order, each of the structures and roads added since the previous aerial photograph were counted and the land area occupied was calculated.

Environmental hazards were examined on aerial photographs from the years 1995, 1999, 2004, 2010, 2015, 2019, 2021, 2022 and January 2023, and in each photograph, new hazards that did not appear in the previous aerial photographs were marked and counted.

GIS experts surveyed the entire area of the Wye-designated Nature Reserve in the aerial photographs of the years detailed above; the data and their findings are presented below, but for the sake of visual illustration, several areas were selected. A series of aerial photographs are shown for each of the selected areas, marking all structures and roads added in the year elapsed since the previous aerial survey.

16 Shlomi Heller, "Under the nose of the Israeli government: a new Palestinian city is being established in the territory of the Judean Desert," Walla, Sep 28, 2023; Hanan Greenwood, "The Palestinian city in the Judean desert: we will continue to build with all our might," Israel Hayom, May 19, 2023

17 Hezki Baruch, "The Land of Israel lobby was hosted by Shlomo Neeman's office in the Wye-designated Nature Reserve: We are left with harsh feelings," Arutz Sheva, Sep 21, 2023.

18 Hanan Greenwood, "Block the construction of the new city that endangers Israel': Gallant tours the city being built in the Judean Desert," Israel Hayom, Sep 26, 2023.

19 Bentzi Rubin, "Netanyahu will hold a special hearing on the destruction of the 'Wye-designated Nature Reservation' in Gush Etzion," Srugim, Sep 27, 2023.

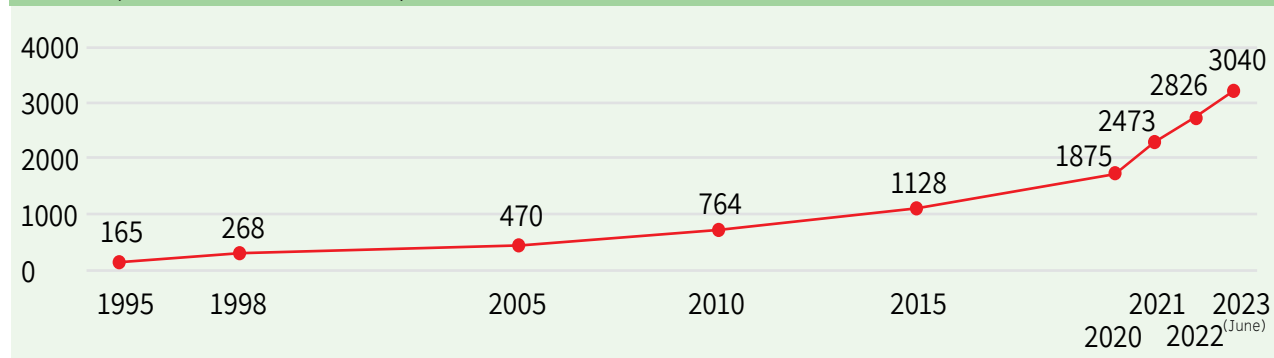
2. Findings

A. Illegal Structures

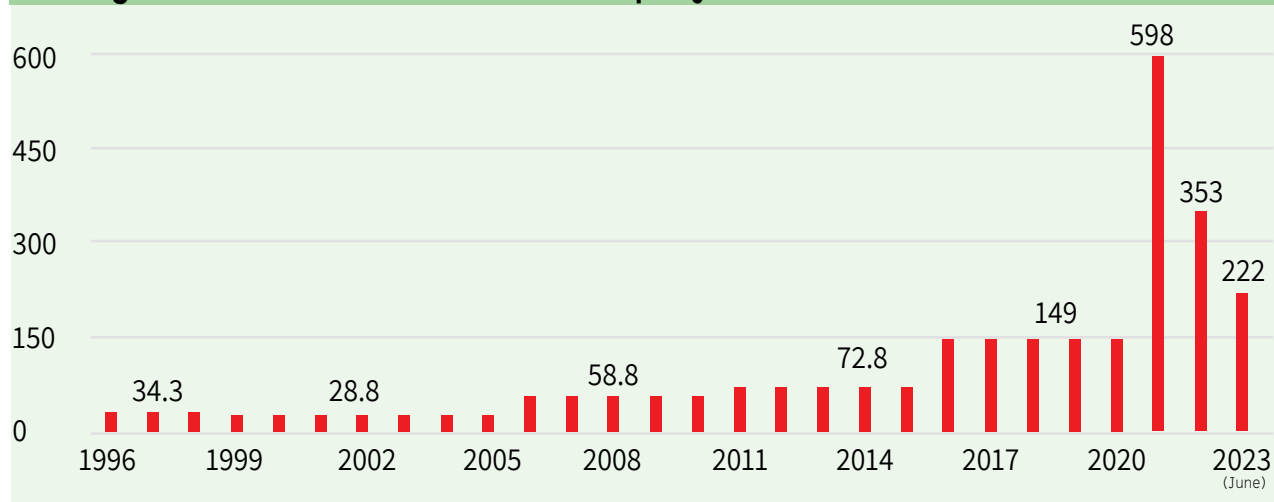
Below is the number of illegal structures in the Judean Desert Nature Reserve per year, as identified by expert GIS analysis

Year	Number of new illegal structures	Cumulative number of illegal structures	Average annual increase in illegal structures
1995	165	165	
1998	103	268	34.3
2005	202	470	28.8
2010	294	764	58.8
2015	364	1,128	72.8
2020	747	1,875	149
2021	598	2,473	598
2022	353	2,826	353
2023 (June)	222	3048	222

Number of illegal structures in the Wye-designated Nature Reserve 1995-2023 (cumulative total)



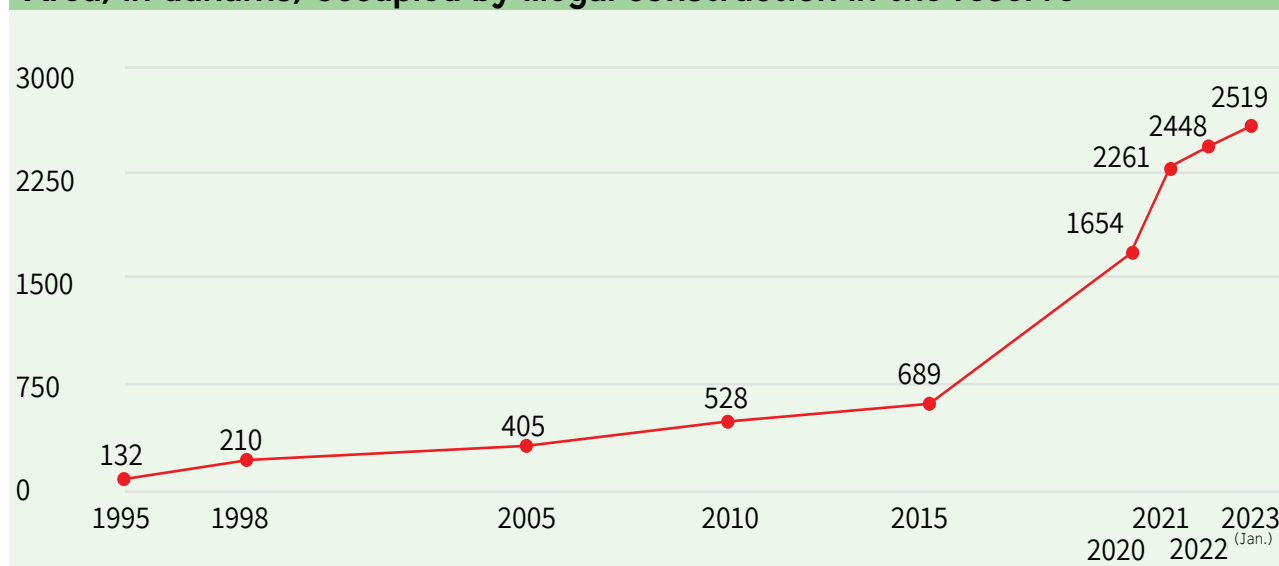
Average number of new structures built per year in the Nature Reserve, 1995-2023



Area occupied by illegal structures in the Nature Reserve by year, as identified by GIS analysis:

Year	Additional area occupied by illegal construction (dunams)	Total (cumulative) area occupied by illegal construction (dunams)	Average annual expansion
1995	132	132	
1998	78	210	26
2005	195	405	27.8
2010	123	528	24.6
2015	161	689	32.2
2020	965	1,654	193
2021	607	2,261	607
2022	187	2,448	187
2023 (Jan.)	71	2,519	71

Area, in dunams, occupied by illegal construction in the reserve

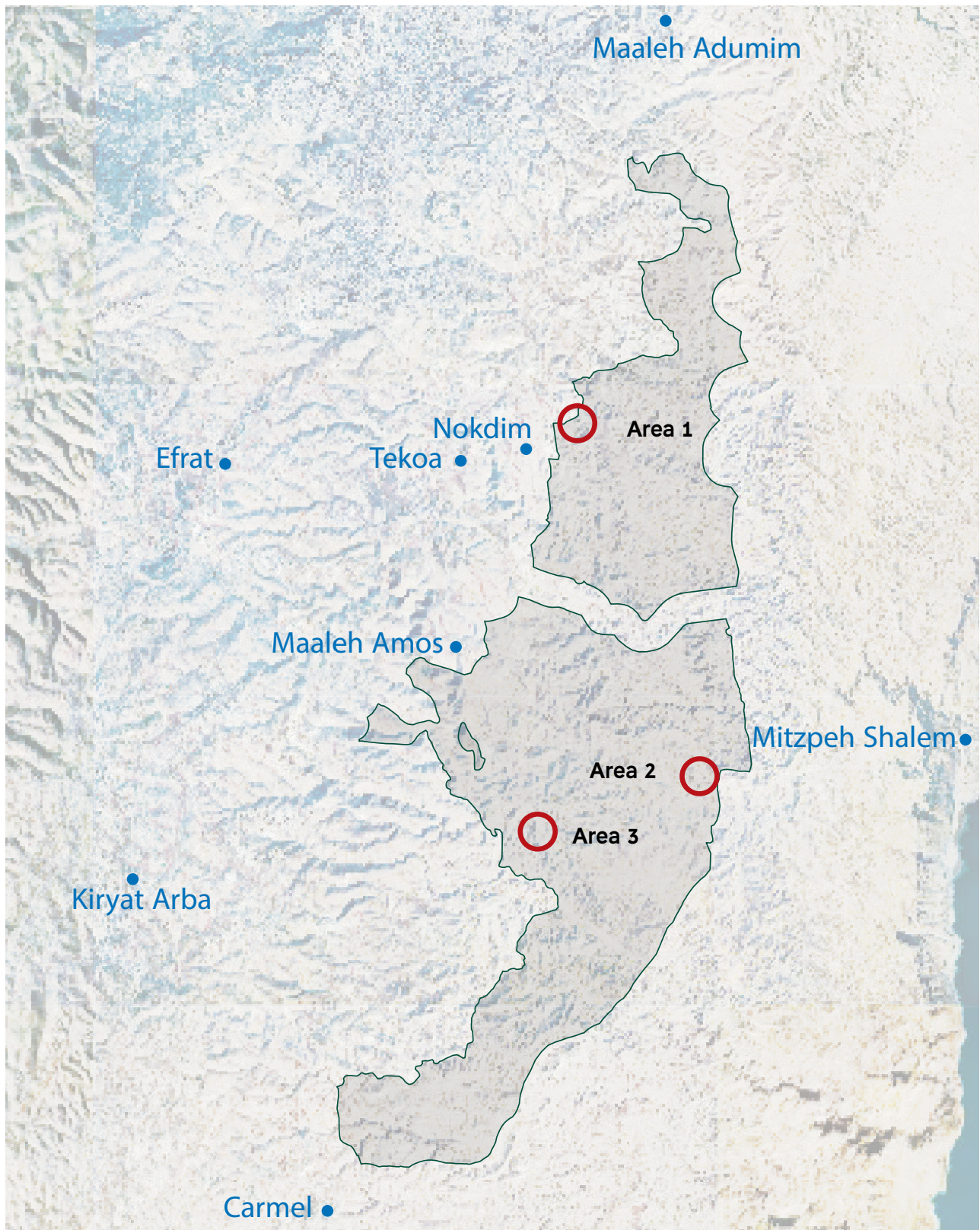


The data speaks for itself. In 1995 there were 165 structures in the reserve, and in 1998 – the date the Wye Memorandum was signed – there were 268 structures. Eight years later, in 2005, the number of structures increased by more than 400% to 1,128, and in June 2023 the number of structures climbed to 3,048. The graphic presentation of this data clearly illustrates an alarming increase in the rate of construction: Immediately after the signing of the Wye Accords, in the period from 1998-2005, on average 29 structures were built each year. From 2011 to 2015 the average annual construction rate more than doubled: 72 new structures every year. After the launch of the Fayyad Plan in 2009, the upward trend in construction continued to gain momentum: Between 2016-2020, an average of 149 new structures were built each year. In 2021 alone, 598 new structures were built.

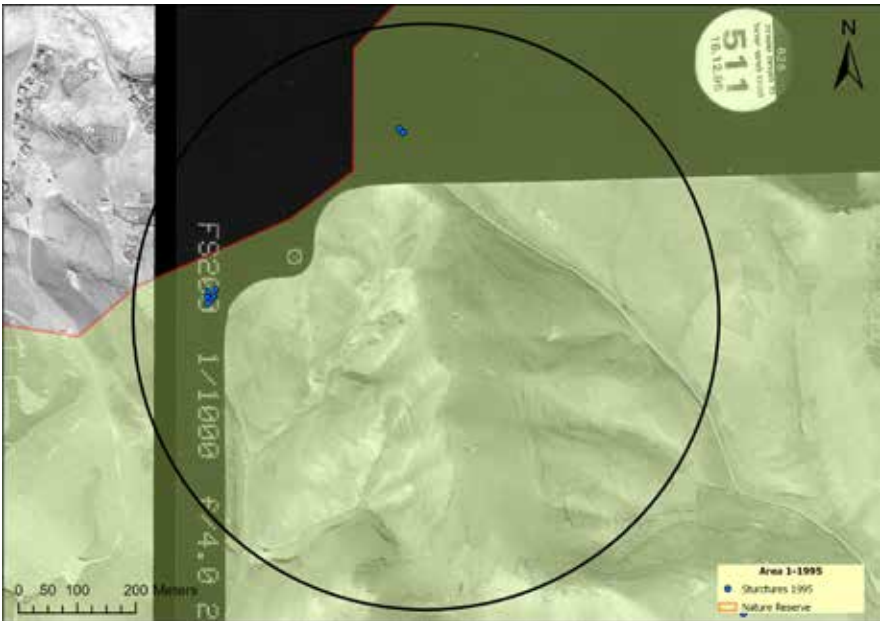
An analysis of the data through June 2023 on the scope of construction and the area occupied by illegal structures shows that construction peaked between 2020- 2021. Not only were a record number of structures built (598), but the area occupied by new construction also broke all previous records: 607 dunams, an average of more than 1 dunam per structure. A tour of the area

reveals that massive, luxurious villas are being built in the Judean Desert.

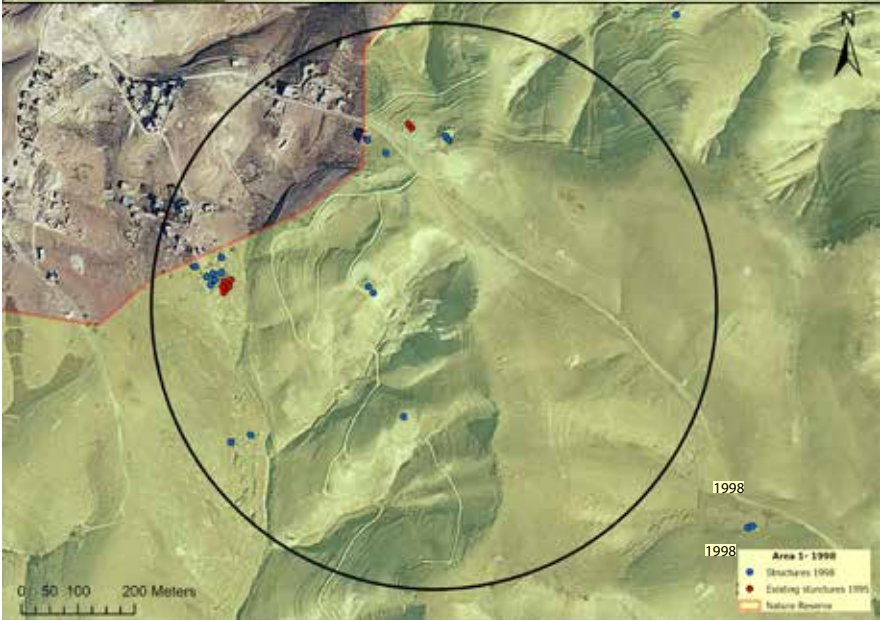
Below are a series of aerial photographs reflecting the periods delineated in the data. These photographs document the situation on the ground in different sections of the Nature Reserve, marking the area occupied by illegal structures as measured from above. The enormous increase in the span of these structures is unmistakable.



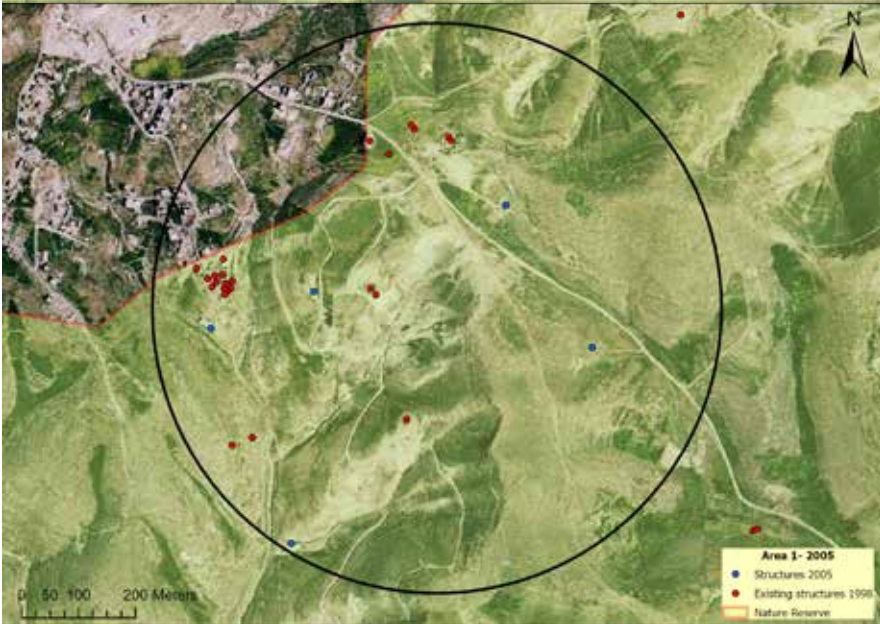
Area 1 - CONSTRUCTION



1995



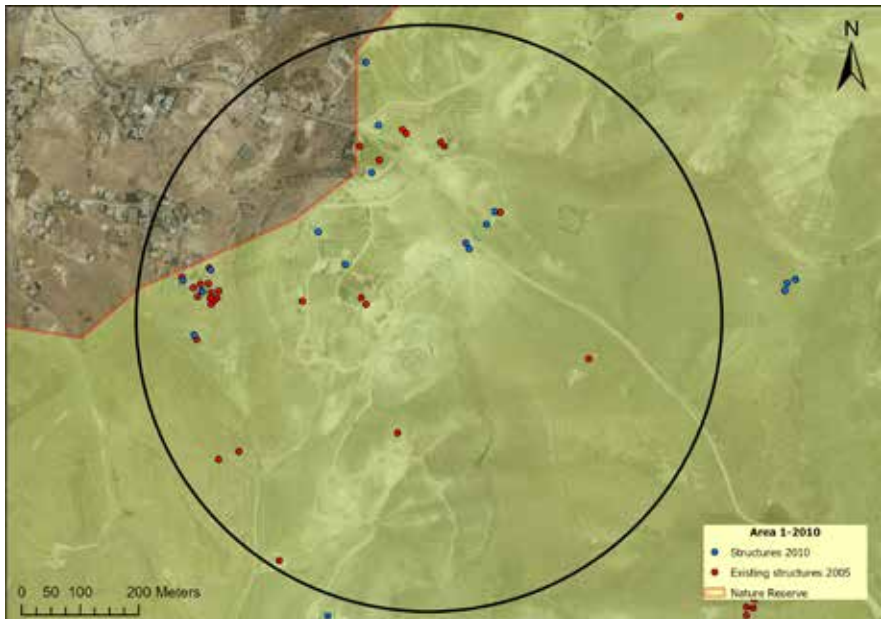
1998



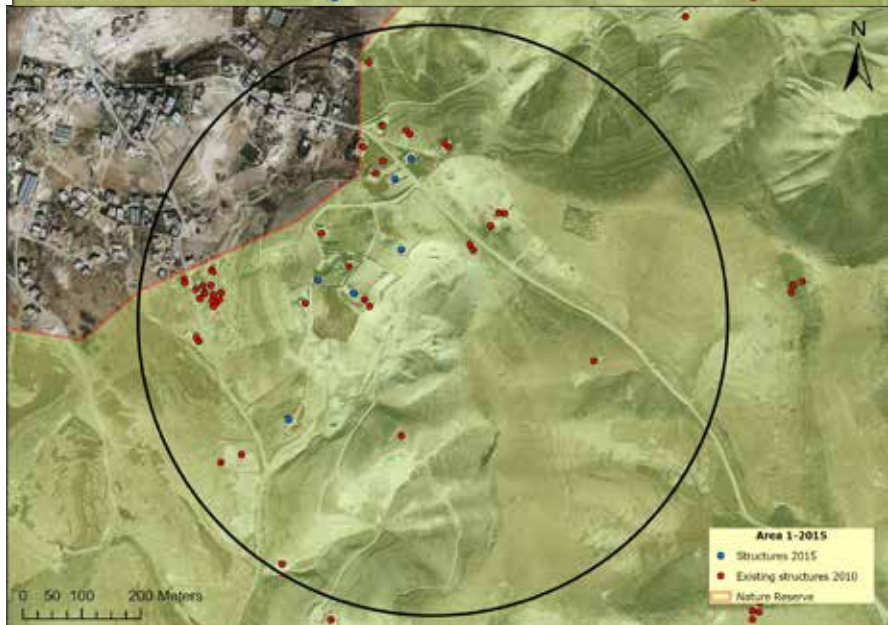
2005

Area 1 - CONSTRUCTION

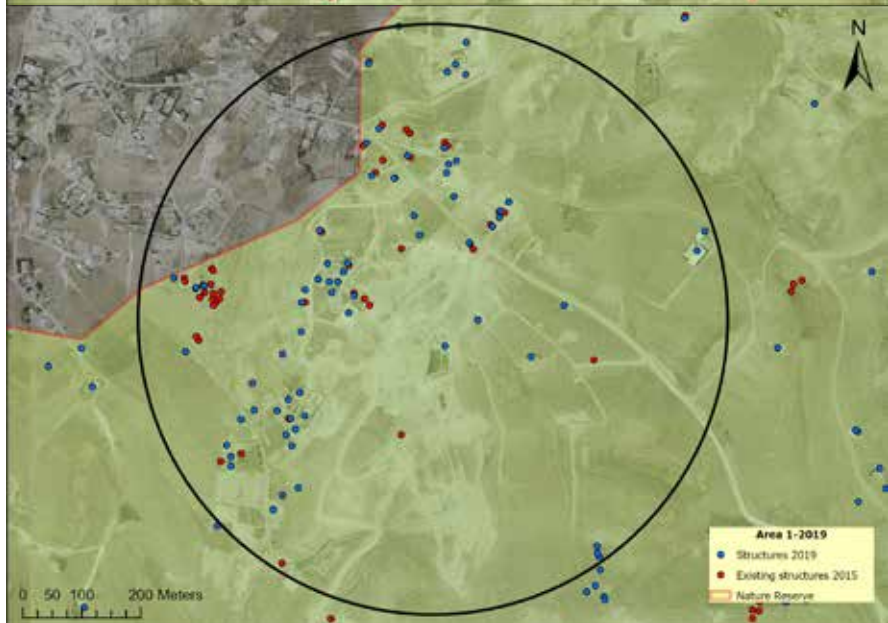
2010



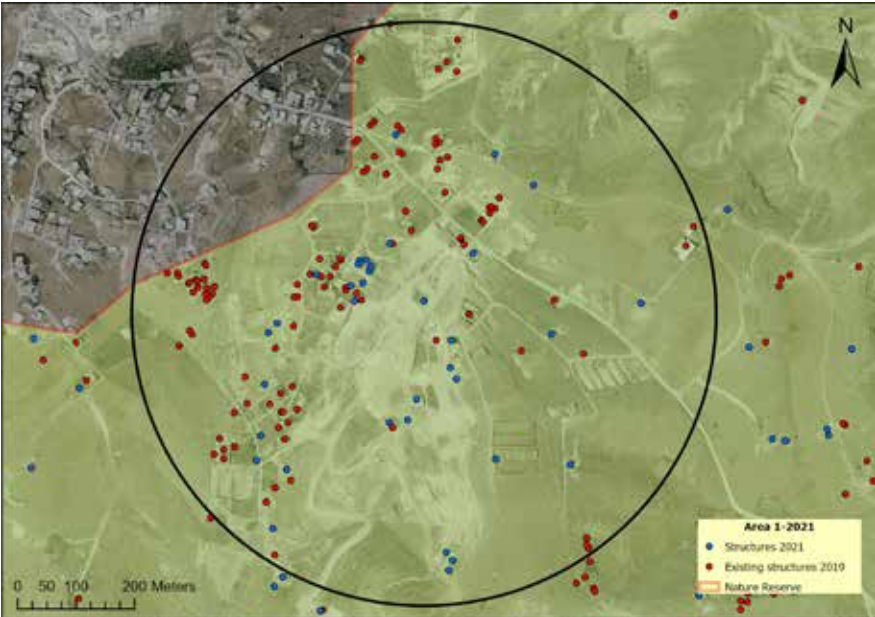
2015



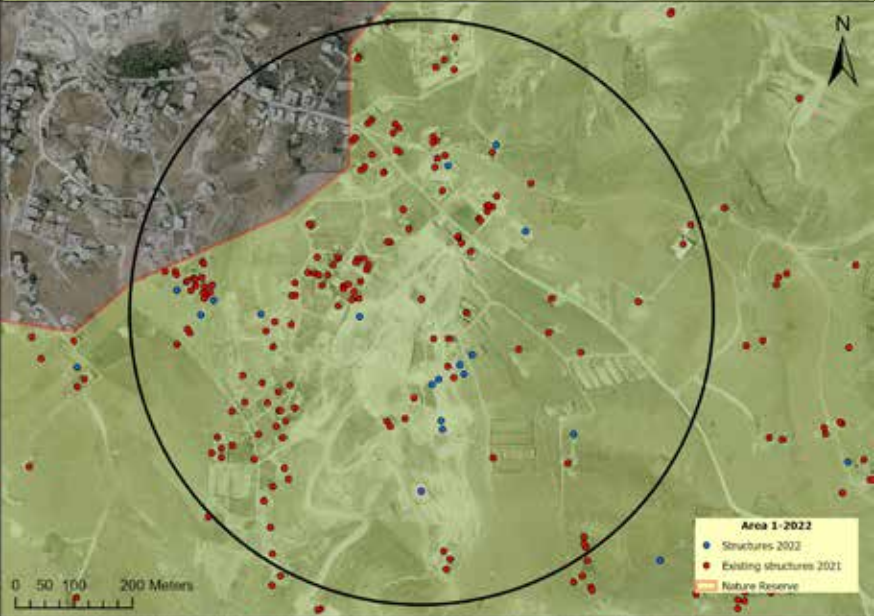
2019



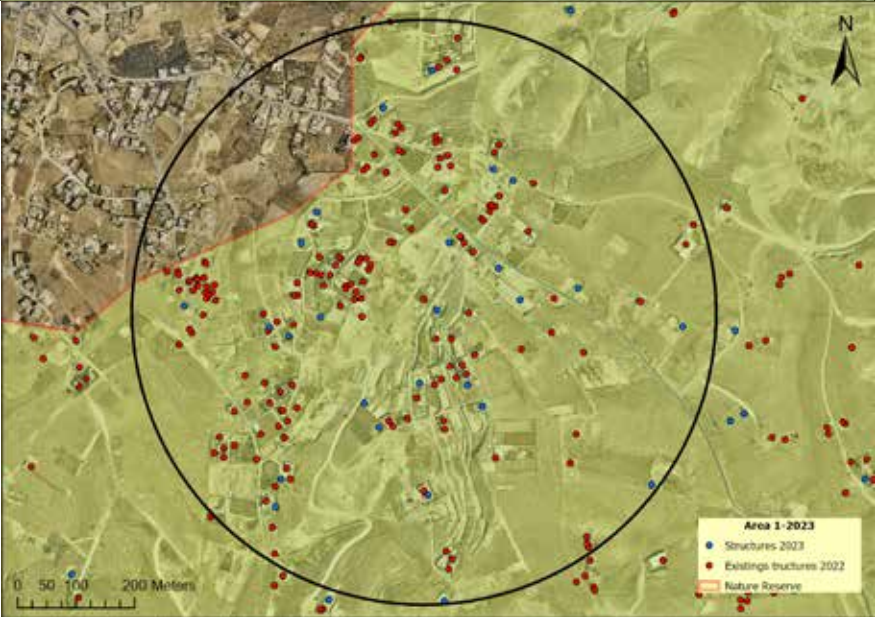
Area 1 - CONSTRUCTION



2021



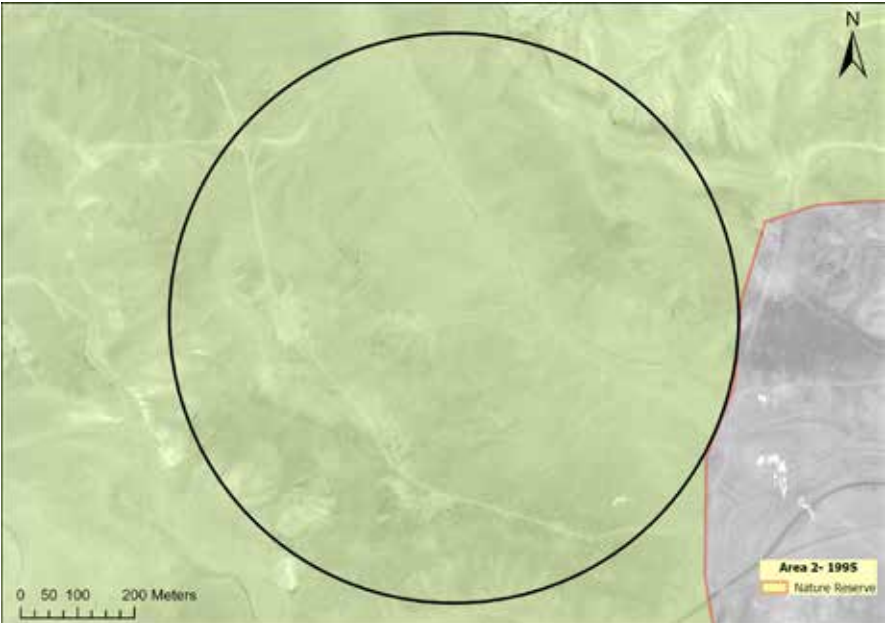
2022



2023

Area 2 - Construction

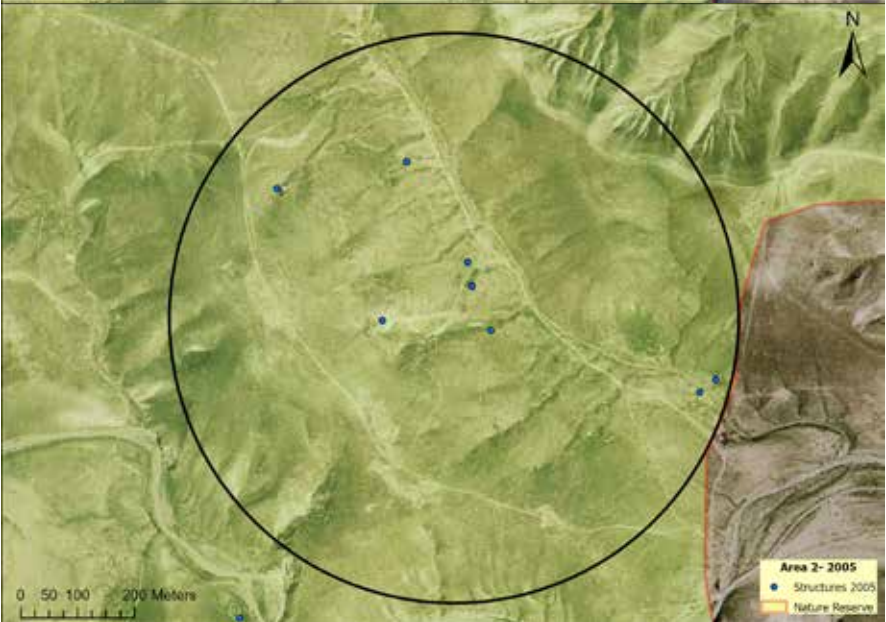
1995



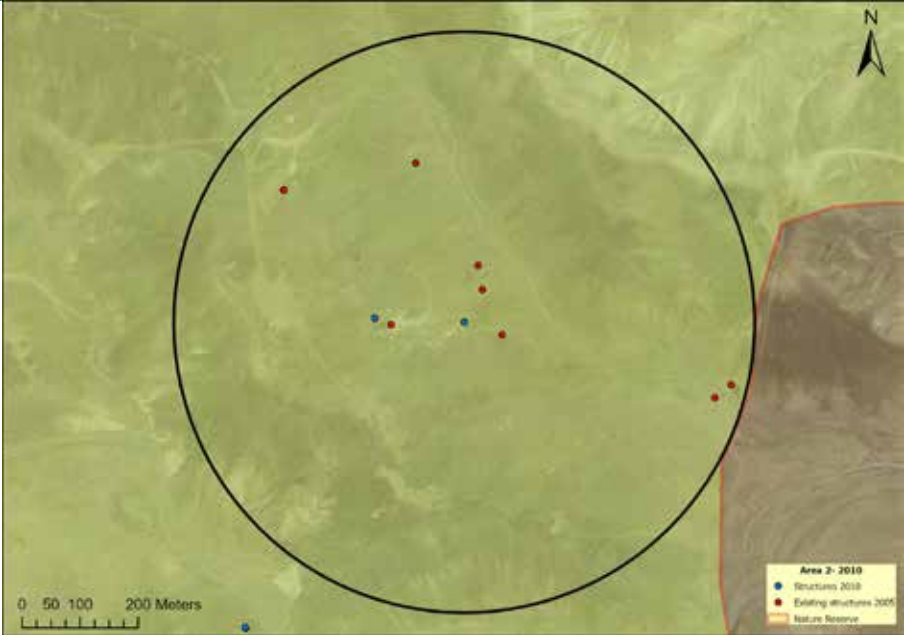
1998



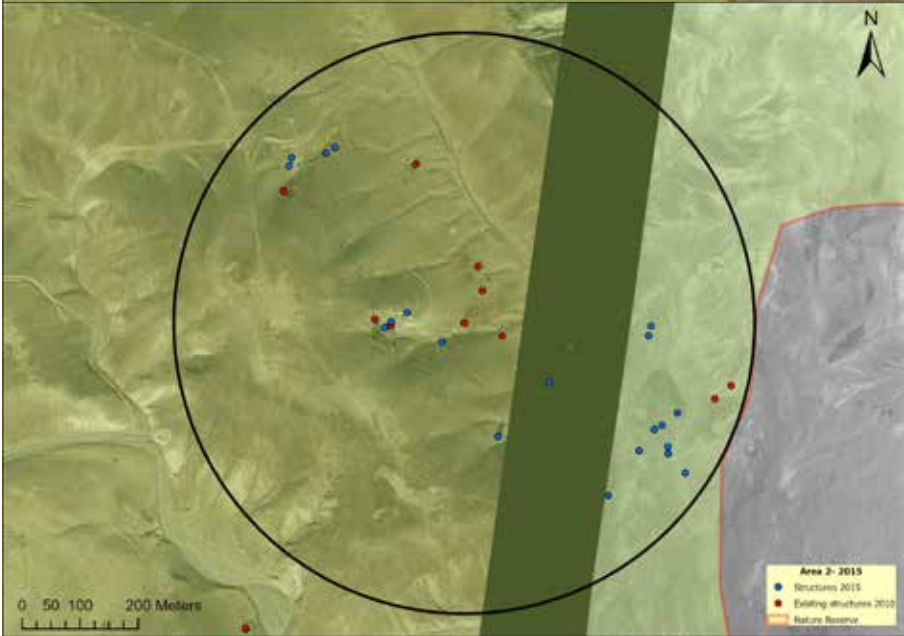
2005



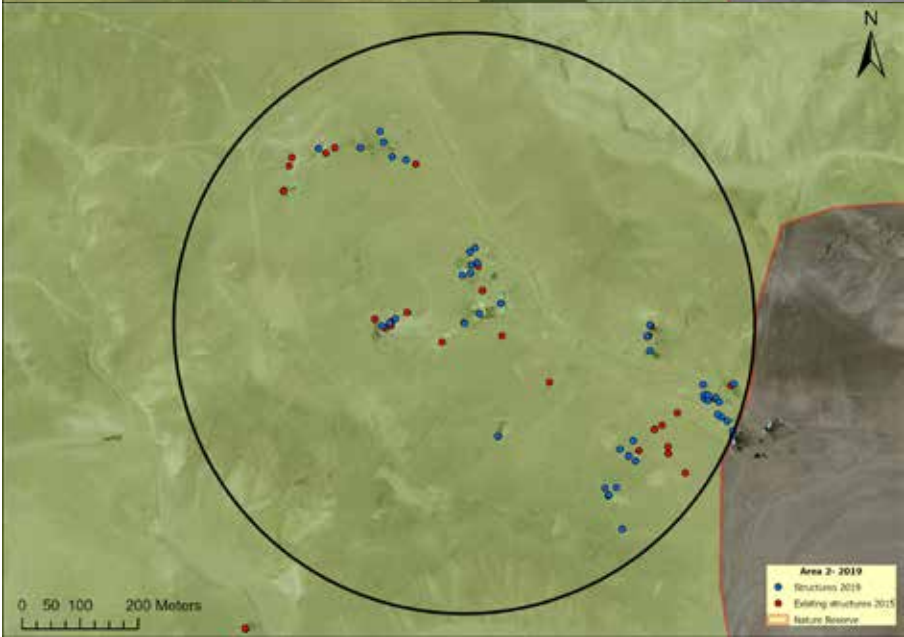
Area 2 - Construction



2010



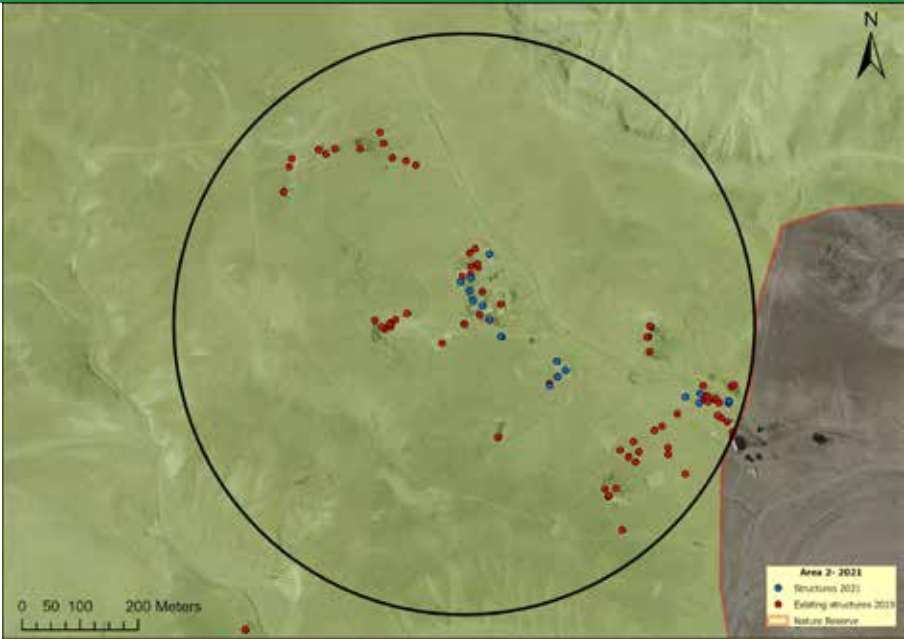
2015



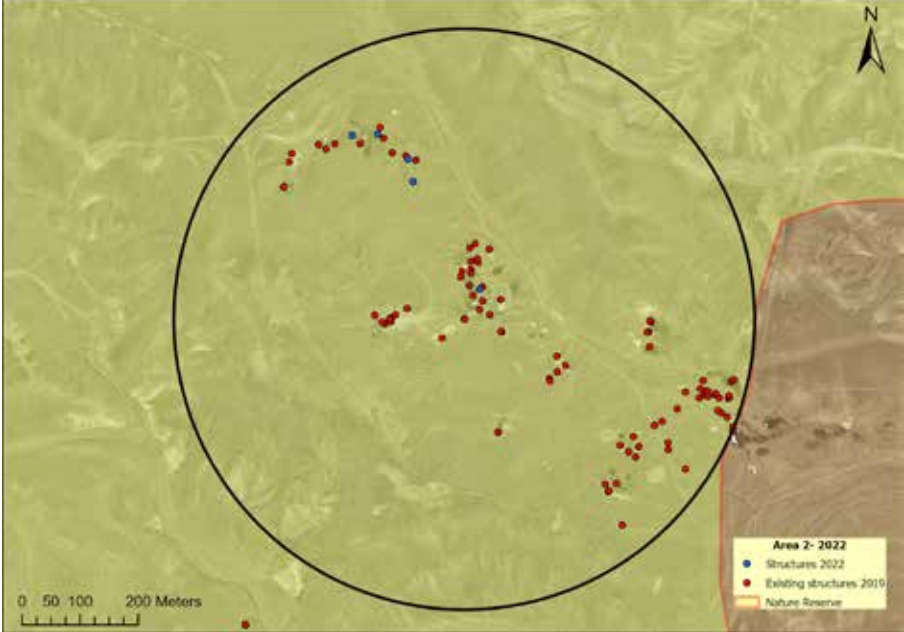
2019

Area 2 - Construction

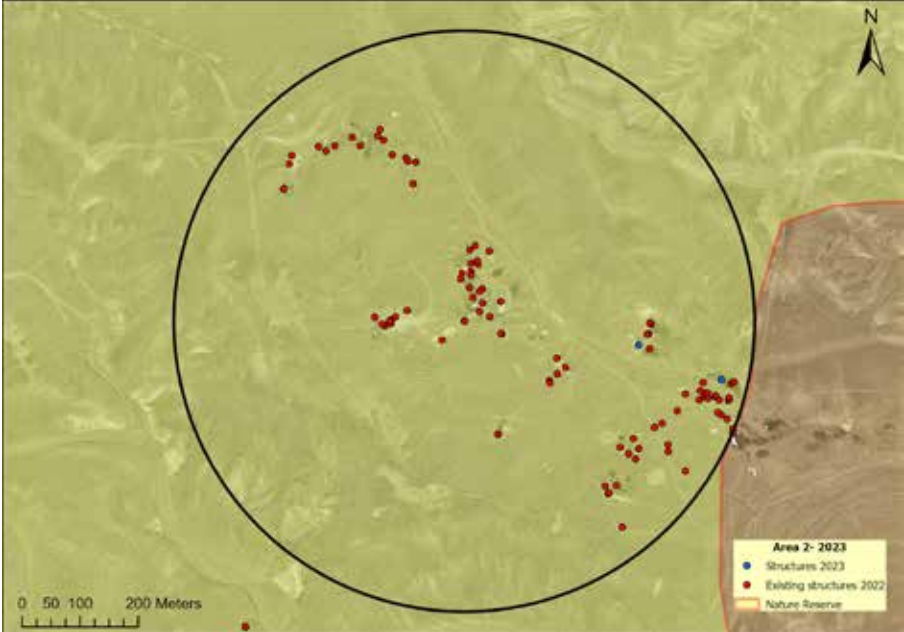
2021



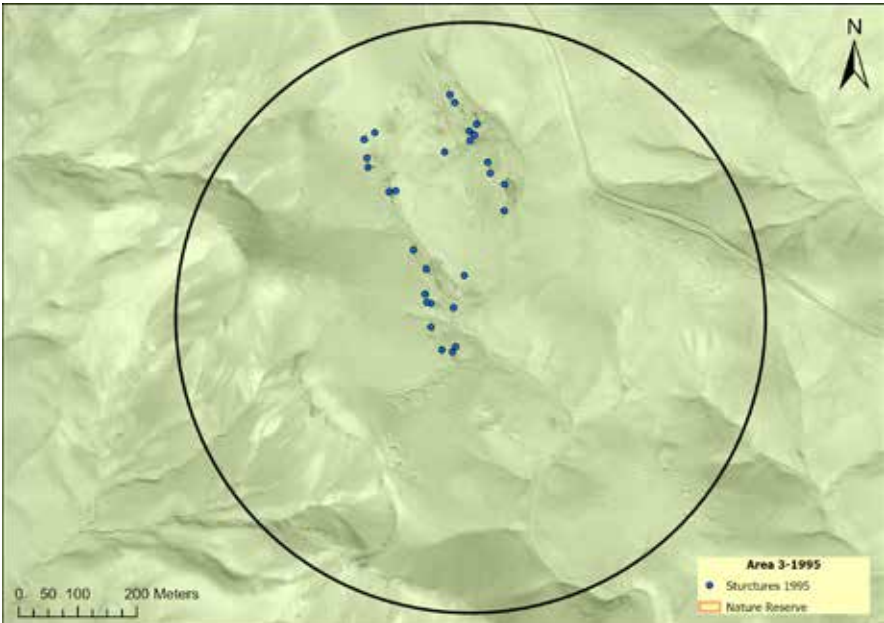
2022



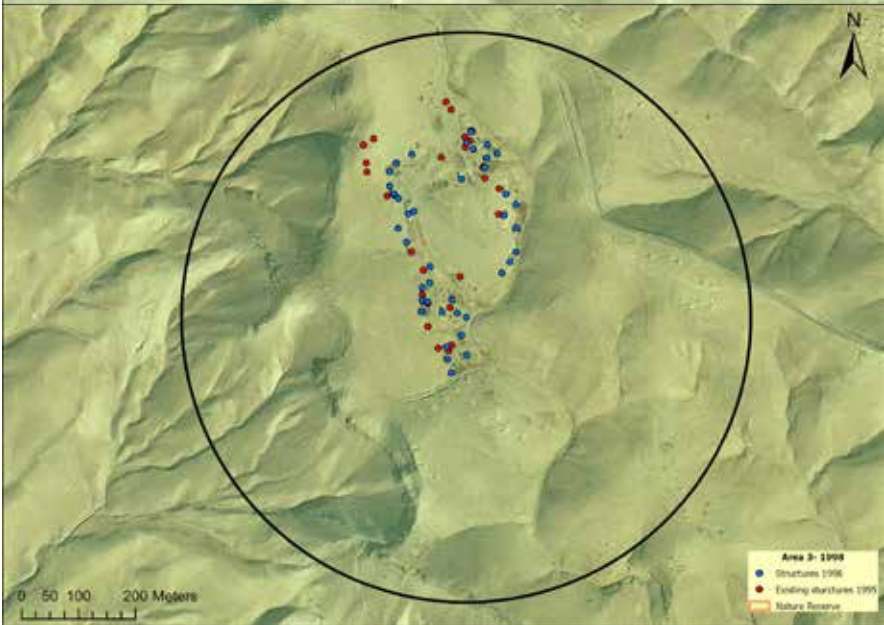
2023



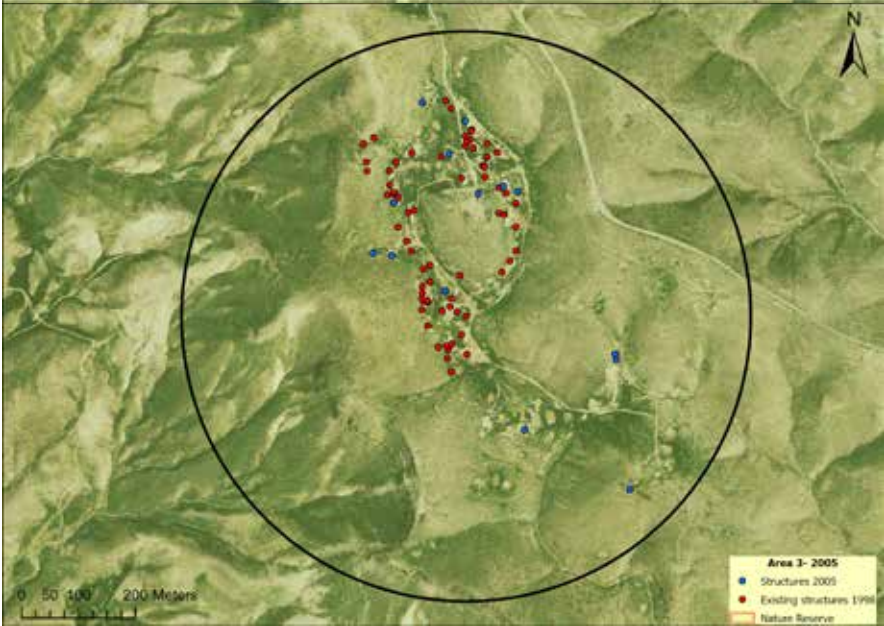
Area 3 - Construction



1995

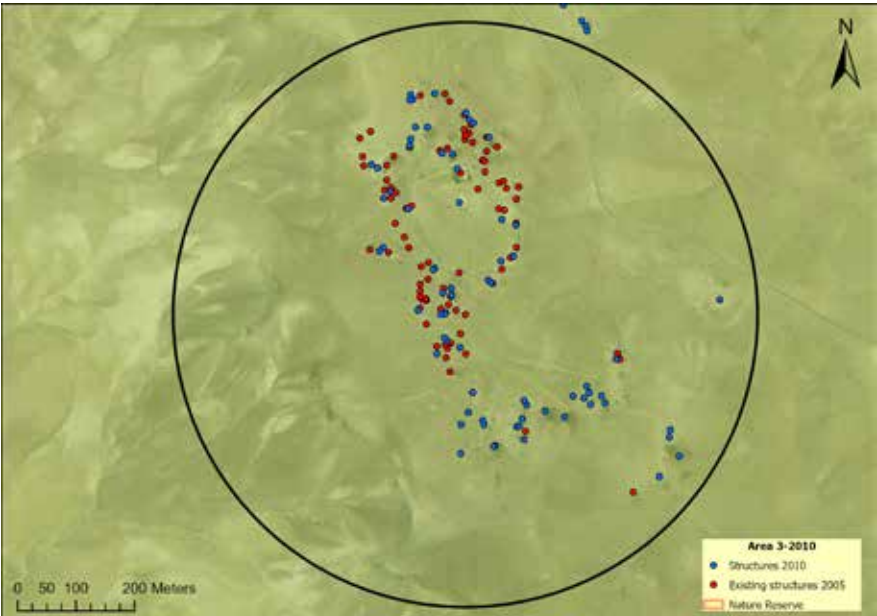


1998

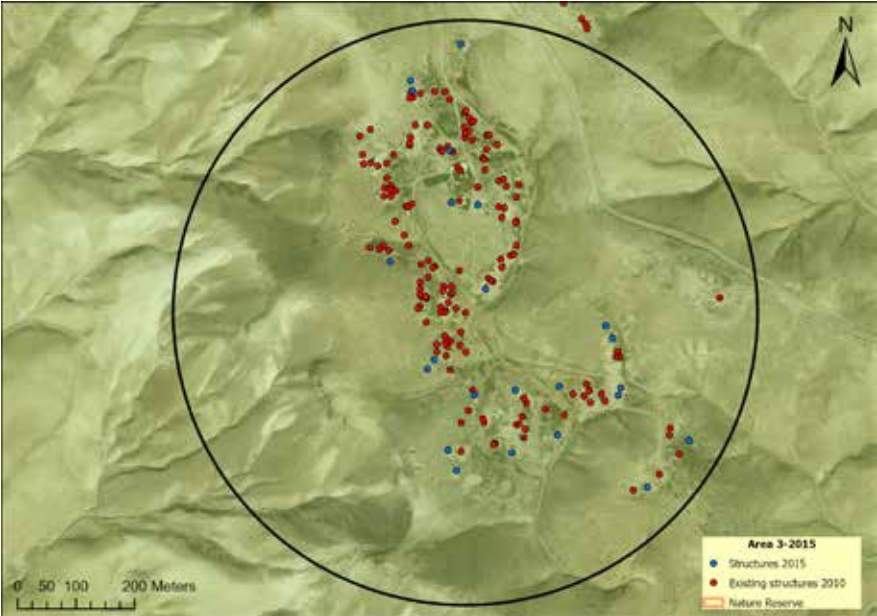


2005

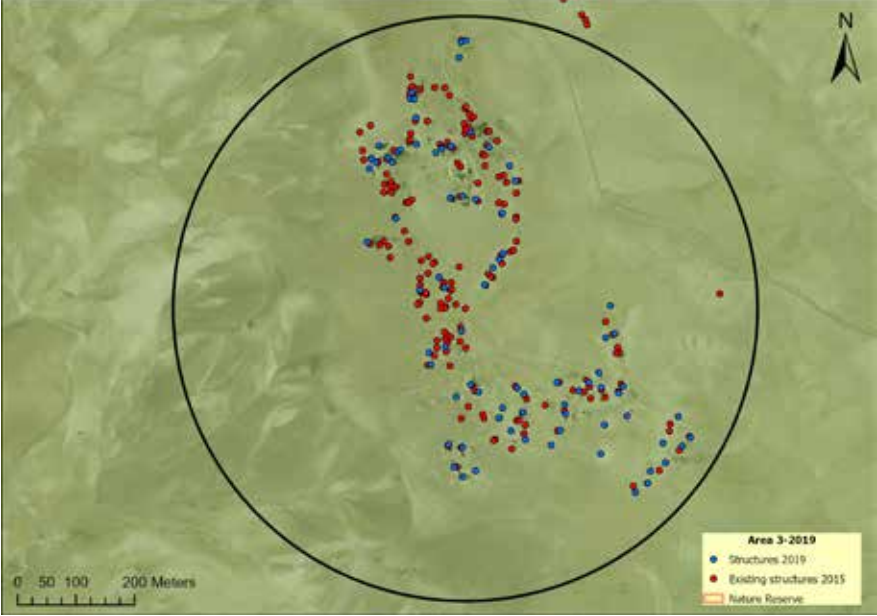
2010



2015



2019

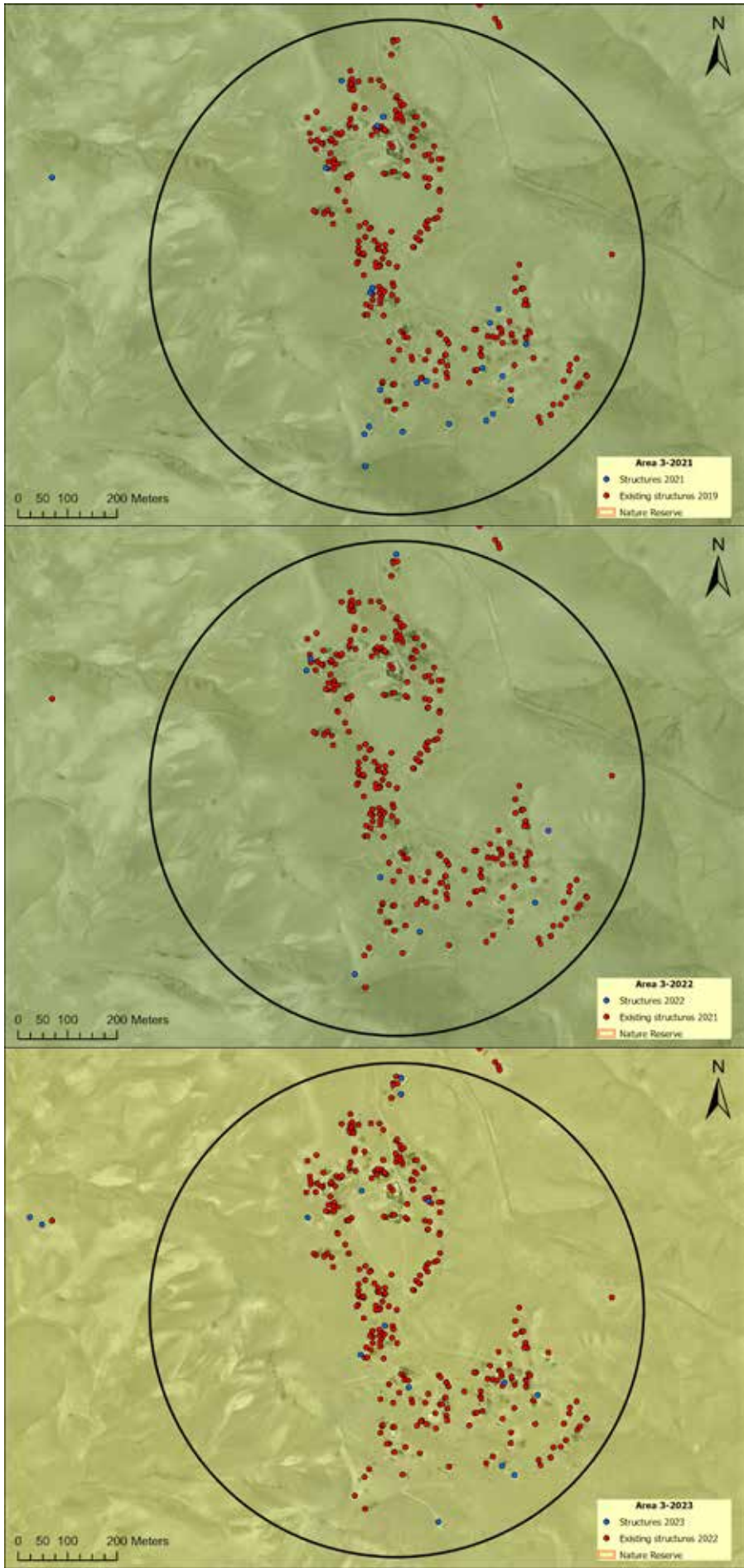


Area 3 - Construction

2021

2022

2023





Construction - Area 1



Mosque, structures and plots demarcated for additional construction in Area 3

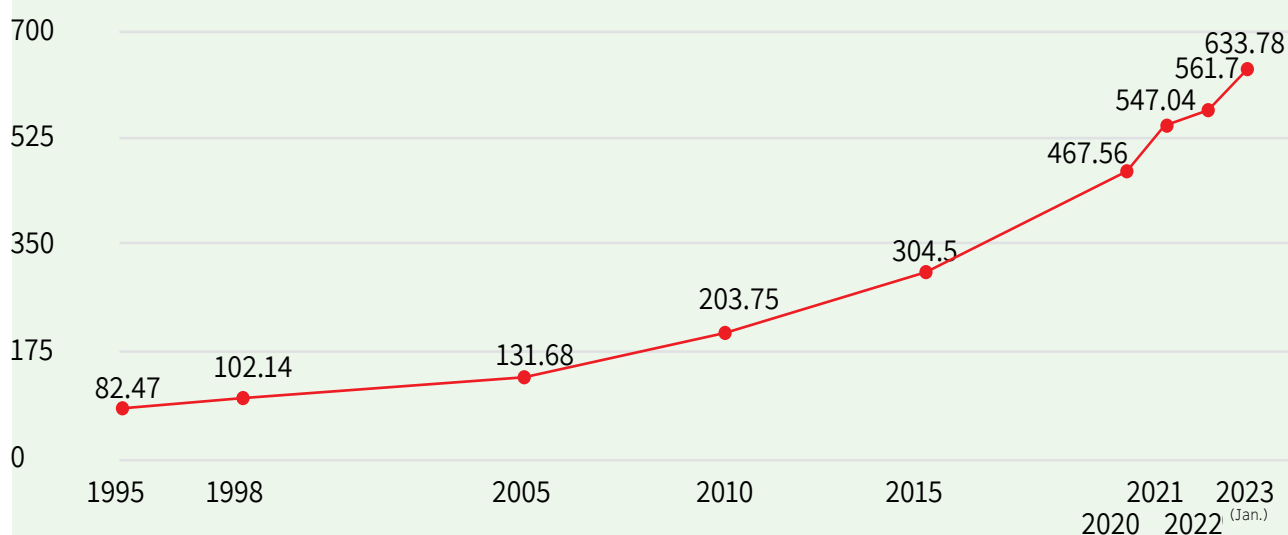
B. Road Encroachments

Below are data reflecting illegal road encroachments by year, as found by GIS experts

Year	Length of the new roads (km)	Cumulative road length (km)	New roads per year (average, km)
1995	82.5	82.5	
1998	19.6	102.1	6.5
2005	29.5	131.6	4.2
2010	72.1	203.7	14.4
2015	100.7	304.5	20
2020	163.1	467.5	32.6
2021	79.5	547.1	79.4
2022	14.6	561.7	14.6
January 2023	72.1	633.7	72

The data indicates that the number of road encroachments increased parallel to the rate of construction. In 1998, when the Wye Accords were signed, there were 102 kilometers of roads in the Nature Reserve; by 2005 another 50 kilometers were added. In the following decade, another 172 kilometers of roads were added, and by 2015 a total of 304 kilometers of illegal roads were documented. The area taken up by new roads more than doubled in less than eight years, and in January 2023, 633 kilometers of roads crossing and winding through the Nature Reserve, distorting and disturbing the entire landscape, were documented.

Total length of roads (km) in the Nature Reserve, 1995-2023



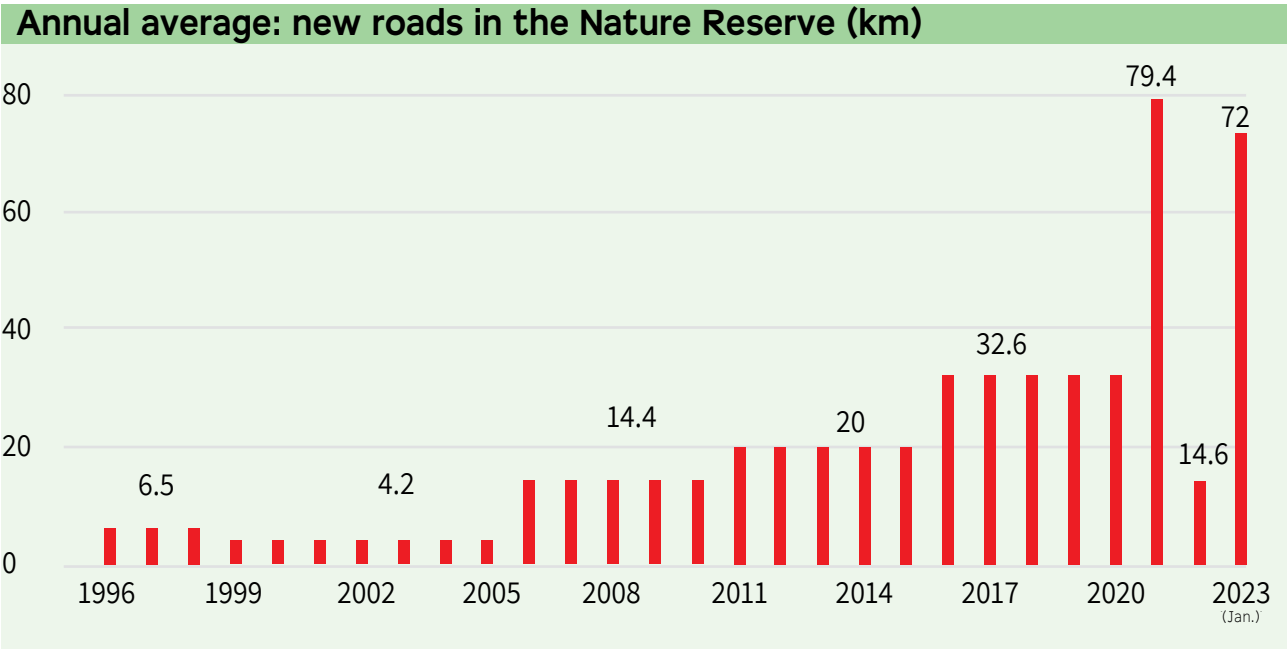
As we have noted, roadwork is a preliminary step that enables illegal construction and other acts of violation of the land resources, including paving, construction of water infrastructure and more – and it is directed by the Palestinian Authority. Groundbreaking for roads is an extremely expensive and exacting procedure, and as a rule is not undertaken on a private individual's initiative but rather by an organization or government body that finances the high costs. As soon as the initial ground clearing and roadbed are laid out, private concerns can afford to build

and independently develop plots of land to which they are now afforded convenient access, and construction of residential structures becomes feasible - even lucrative.

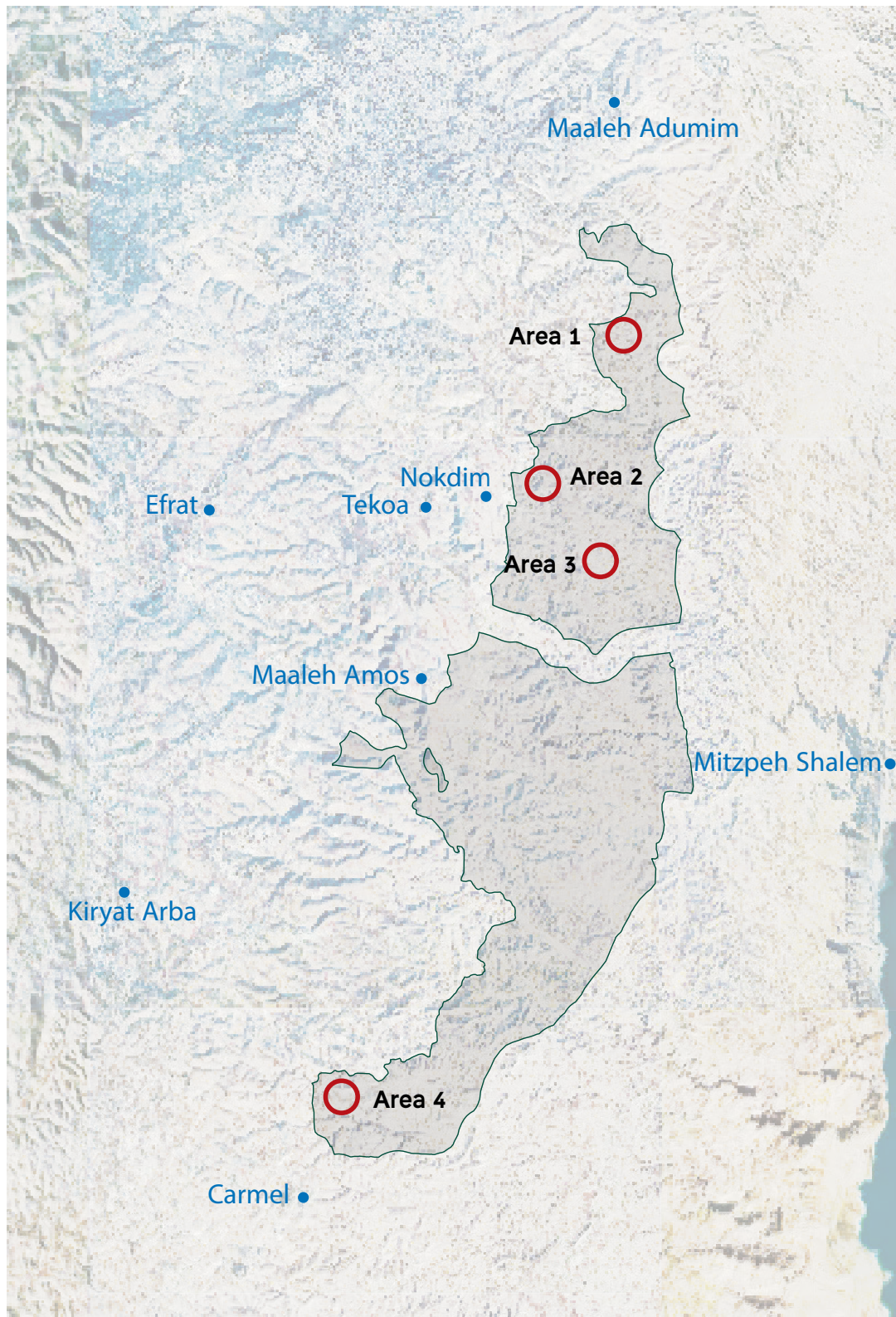
Once the first roads are functional and construction begins to gain momentum, roadwork branches out toward the next hill.

Field surveys of the area in recent months have documented paving of urban roads in the area slated for a new Palestinian Authority city: An asphalt road some six kilometers long was paved deep into the desert, from the outskirts of the village of Za'tara into the Judean Desert, with sidewalks, traffic circles, deceleration lanes and water infrastructure.

It is likely that preventive measures to block construction of new roads and demolition of existing roads will prevent continued illegal construction and ground clearing as well as quarrying and other landscaping work that are altering the complexion of the Nature Reserve and causing enormous harm to the environment and the scenic landscape.

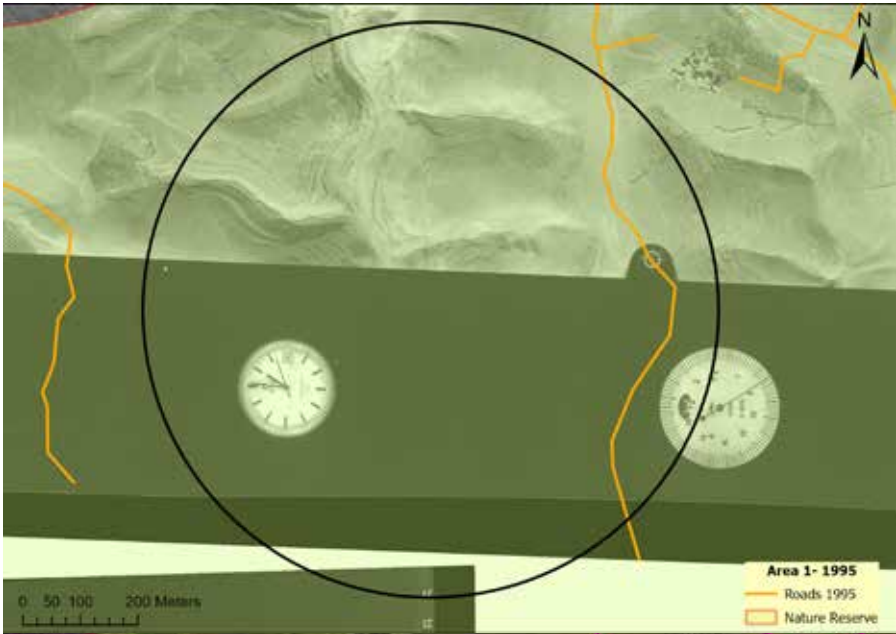


Below are four sets of aerial photographs reflecting the changes in the landscape described above, in selected sections of the Nature Reserve. In the first three series, roads are marked to illustrate the huge increase in the volume of new roads. The fourth series is from an area in the south of the Nature Reserve bordering the southern reaches of Mount Hebron, in which the correlation between road encroachments and illegal construction is clear.

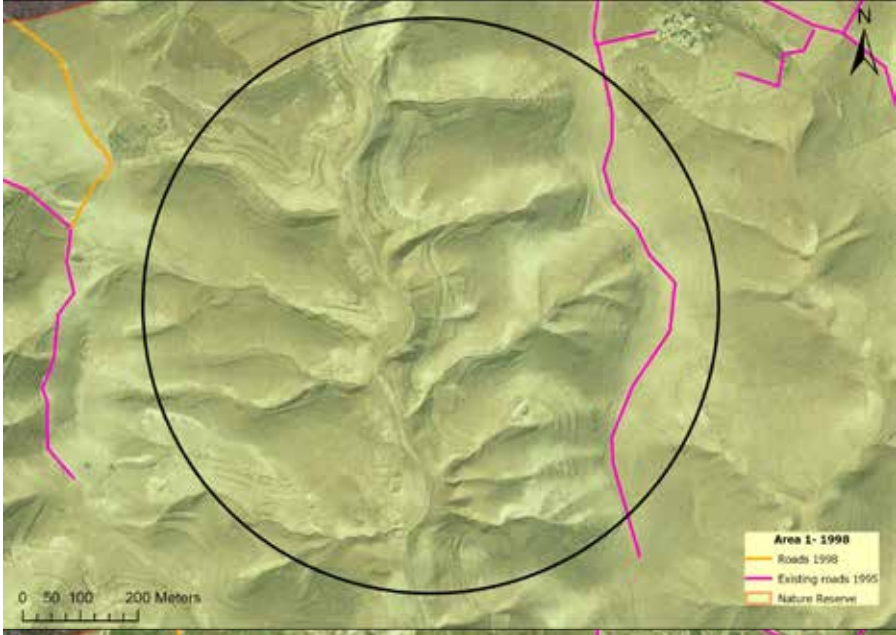


AREA 1 - ROADS

1995



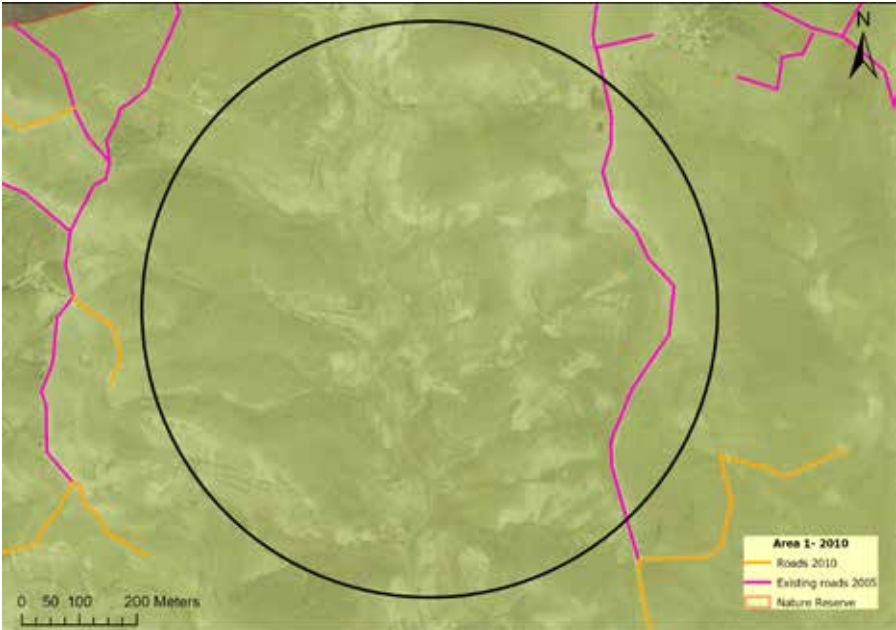
1998



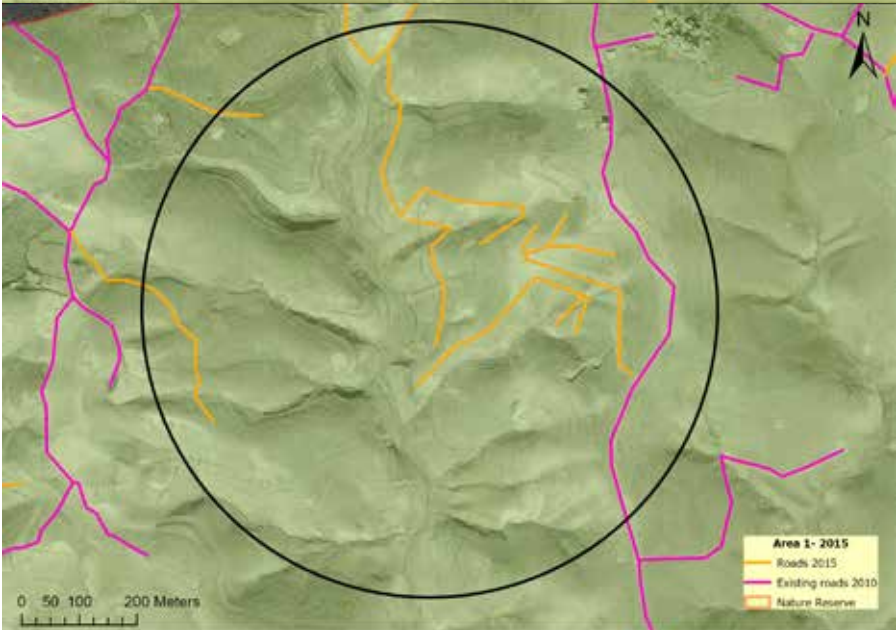
2005



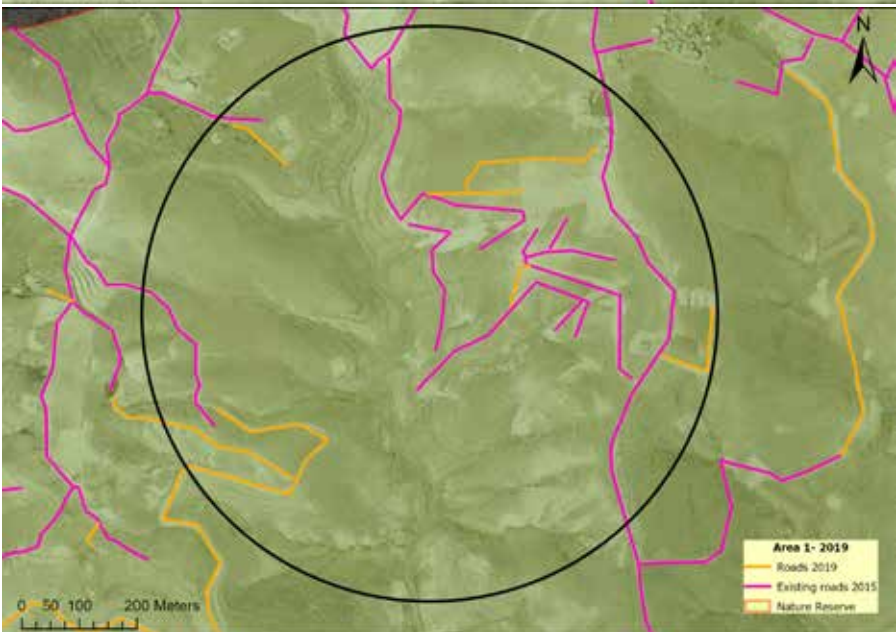
AREA 1 - ROADS



2010



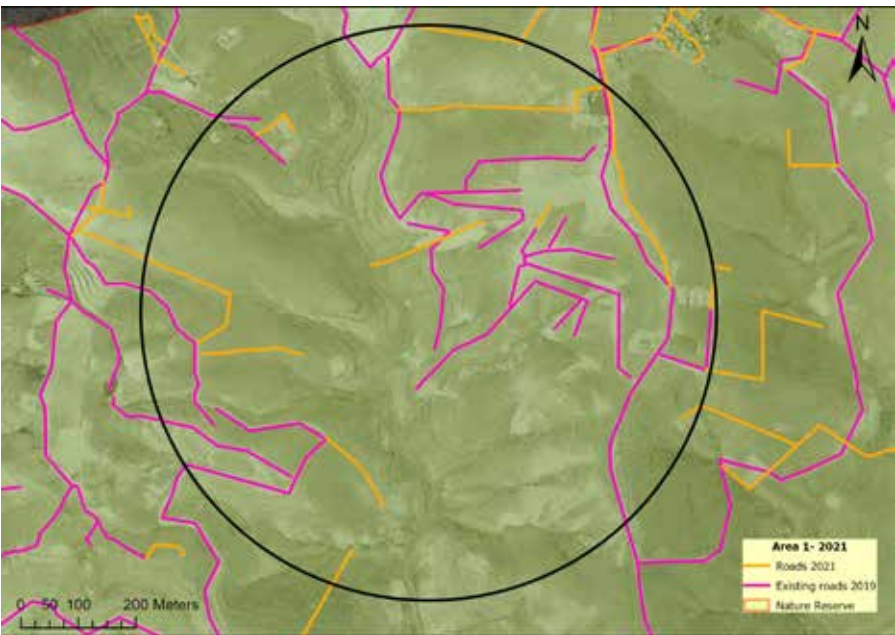
2015



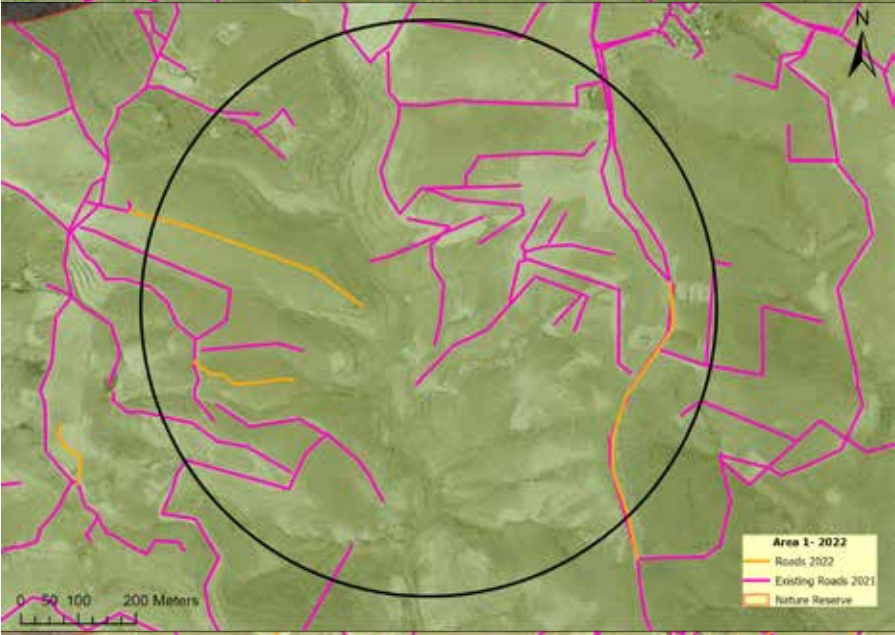
2019

AREA 1 - ROADS

2021



2022

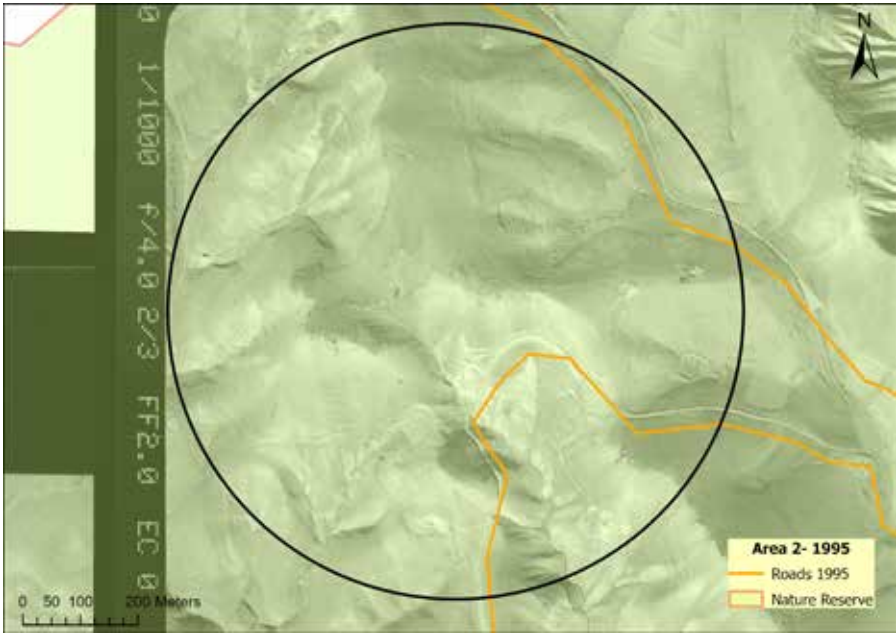


2023

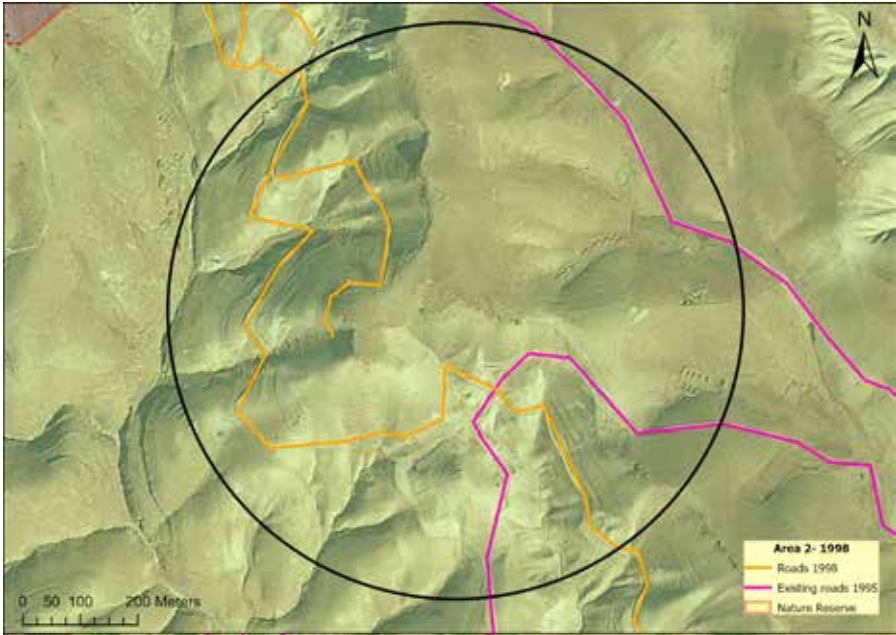


AREA 2 - ROADS

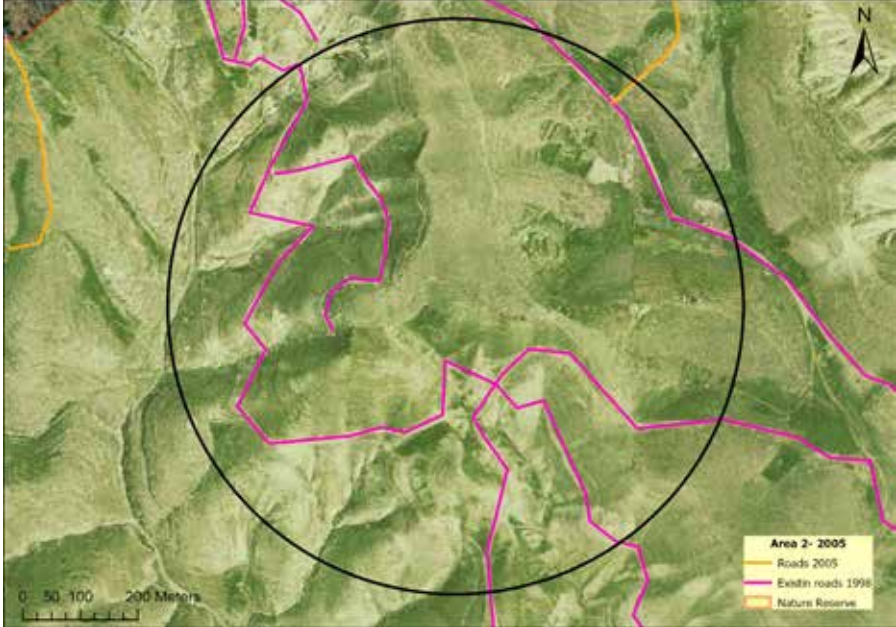
1995



1998

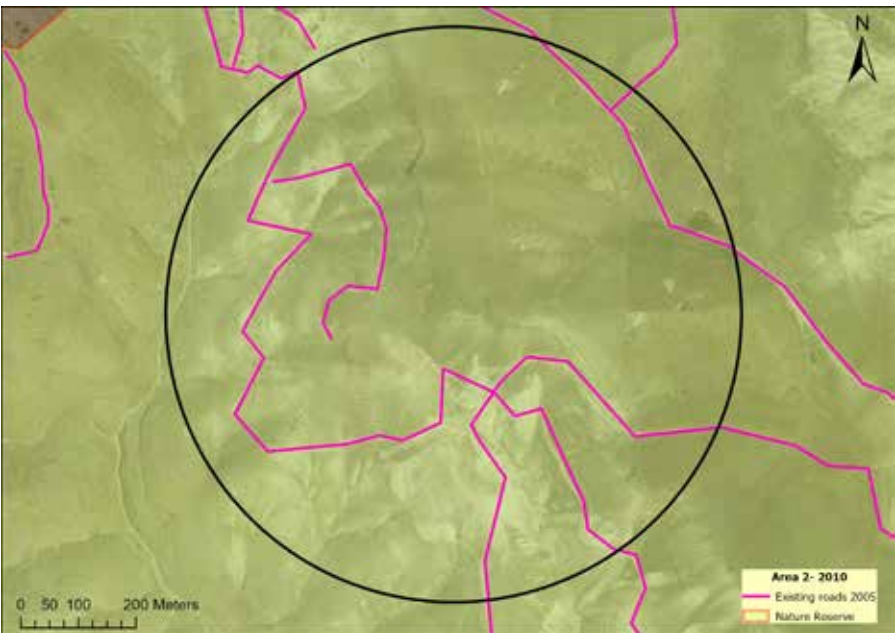


2005

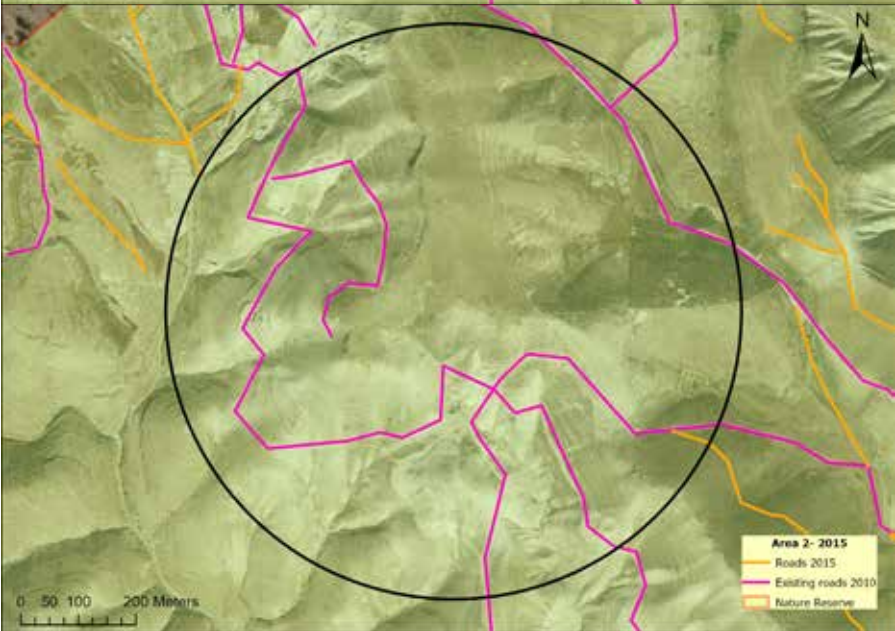


AREA 2 - ROADS

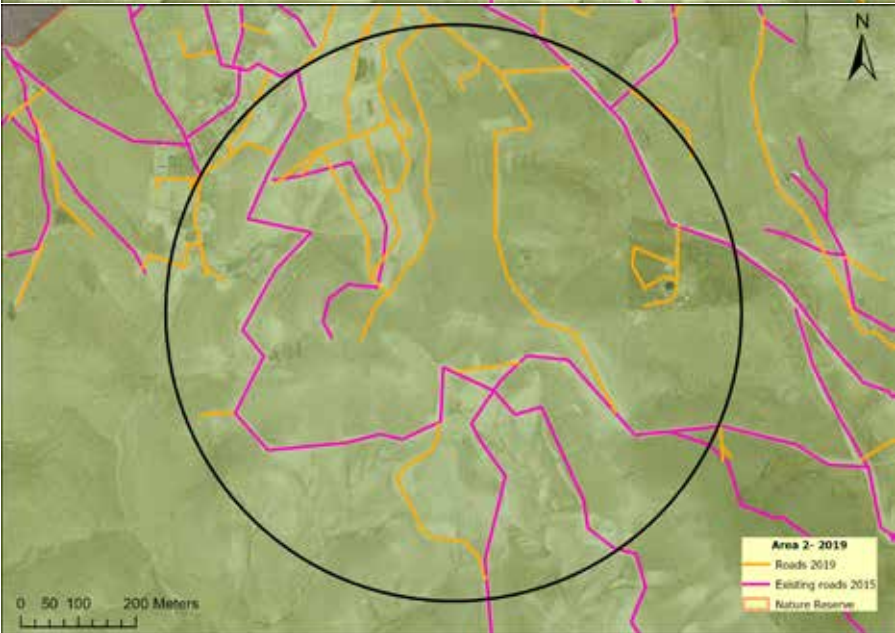
2010



2015



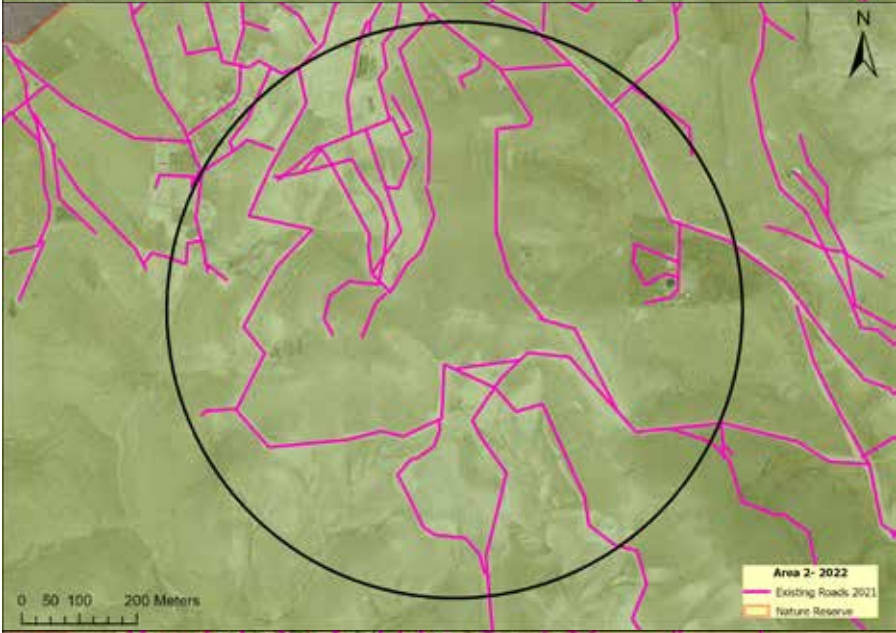
2019



AREA 2 - ROADS



2021



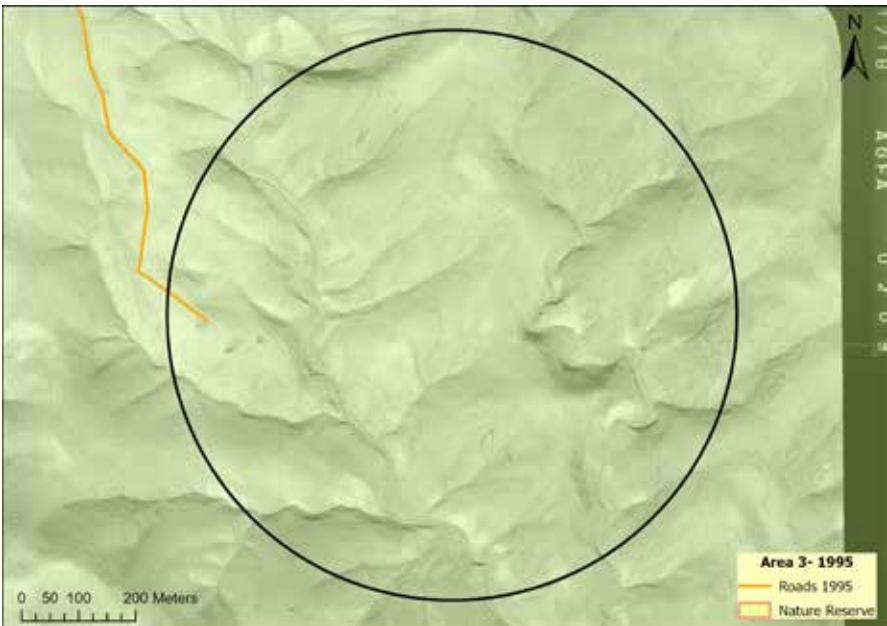
2022:



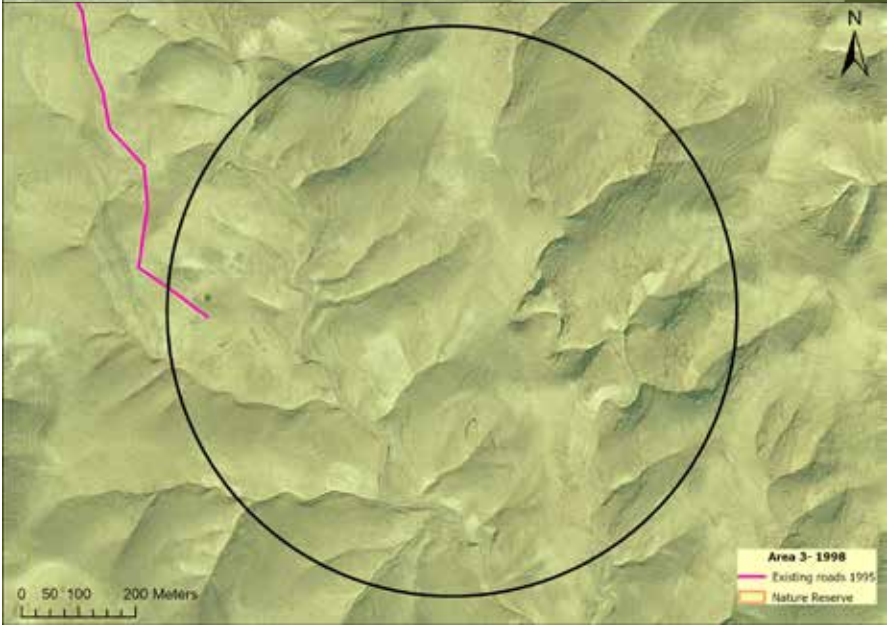
2023

AREA 3 - ROADS

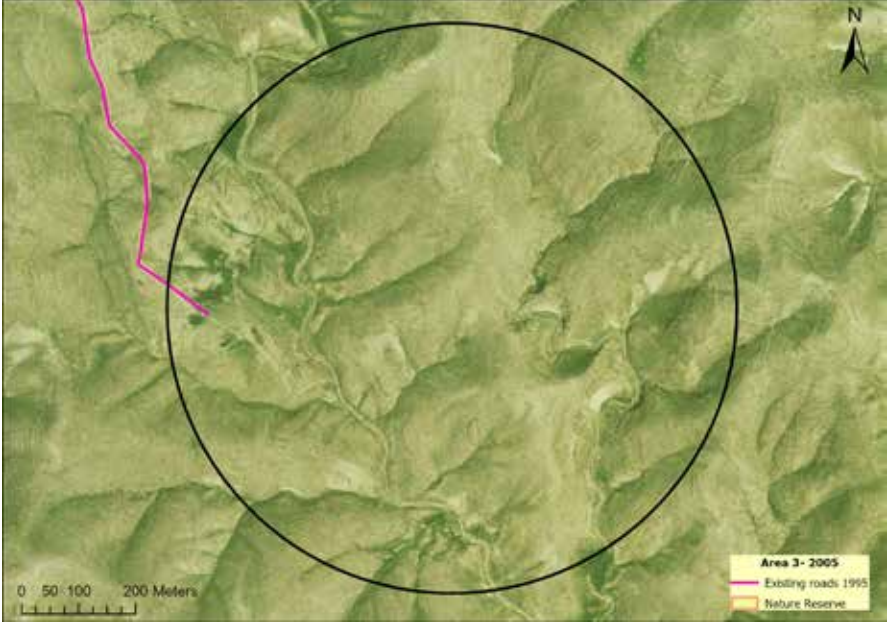
1995



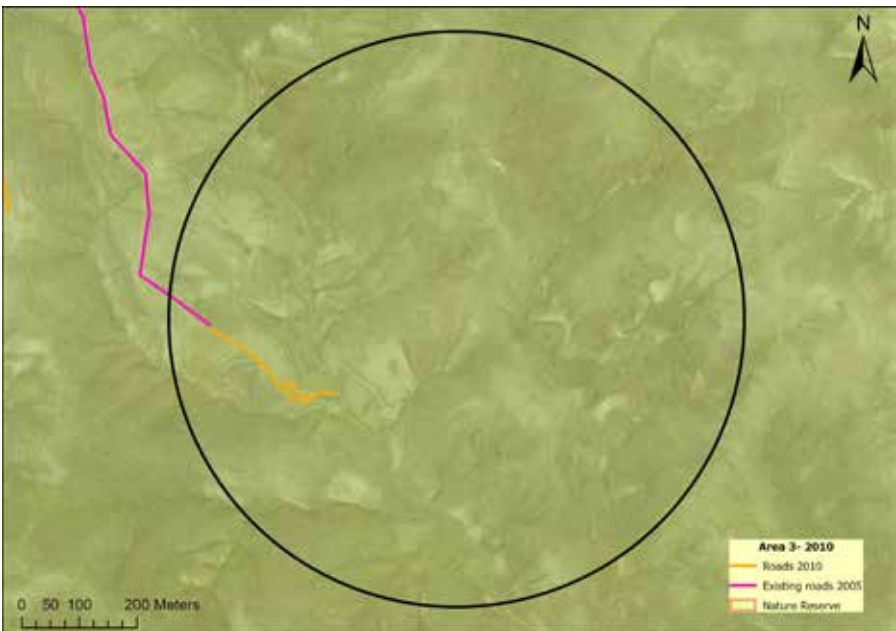
1998



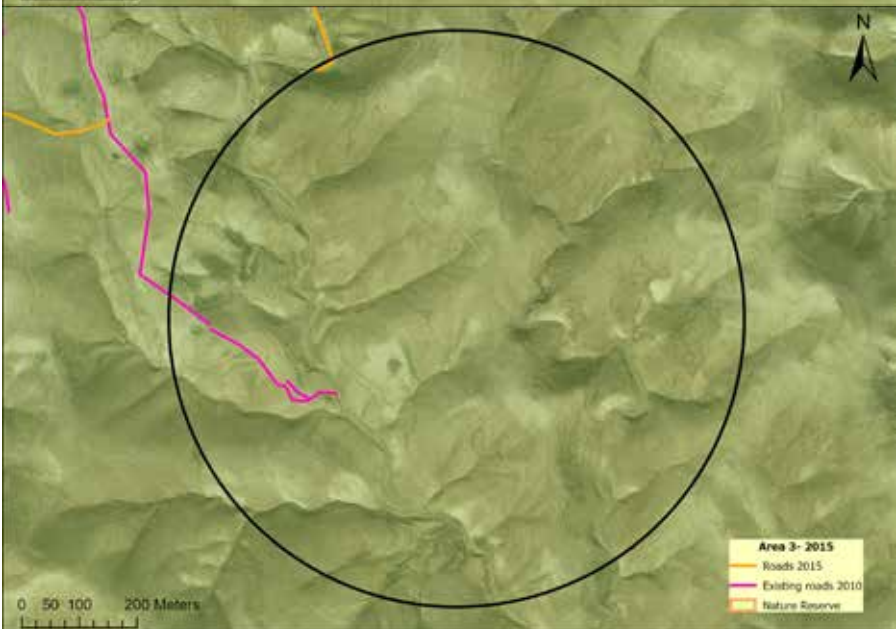
2005



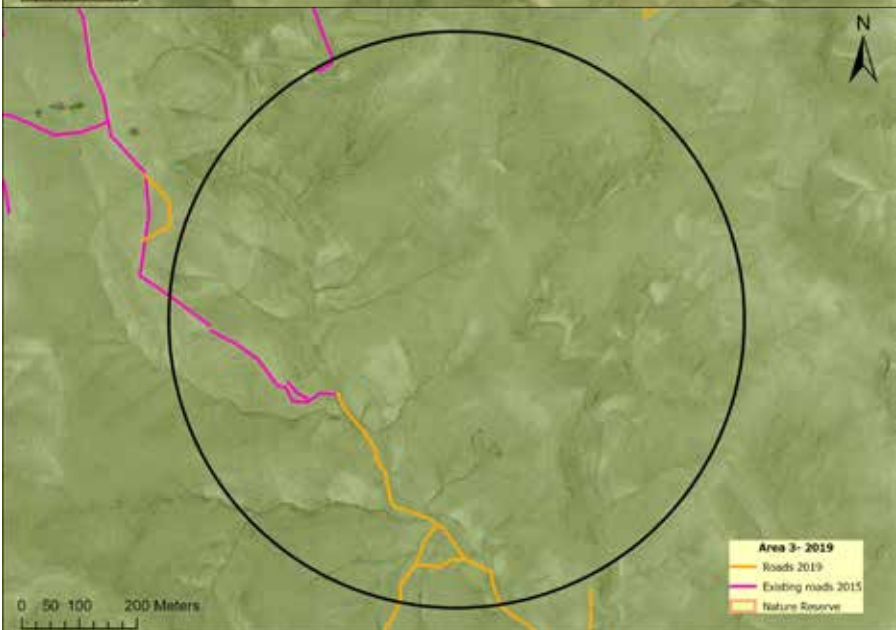
AREA 3 - ROADS



2010



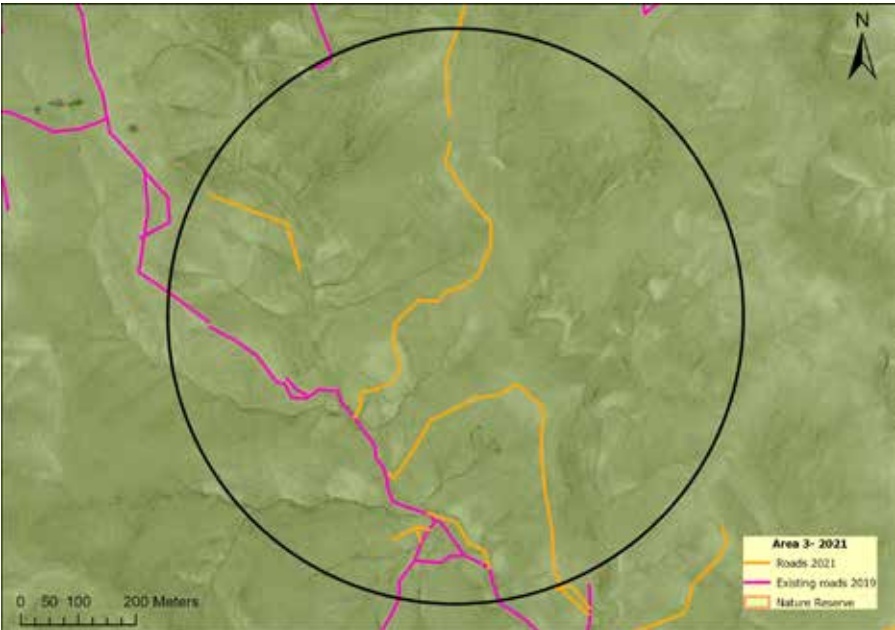
2015



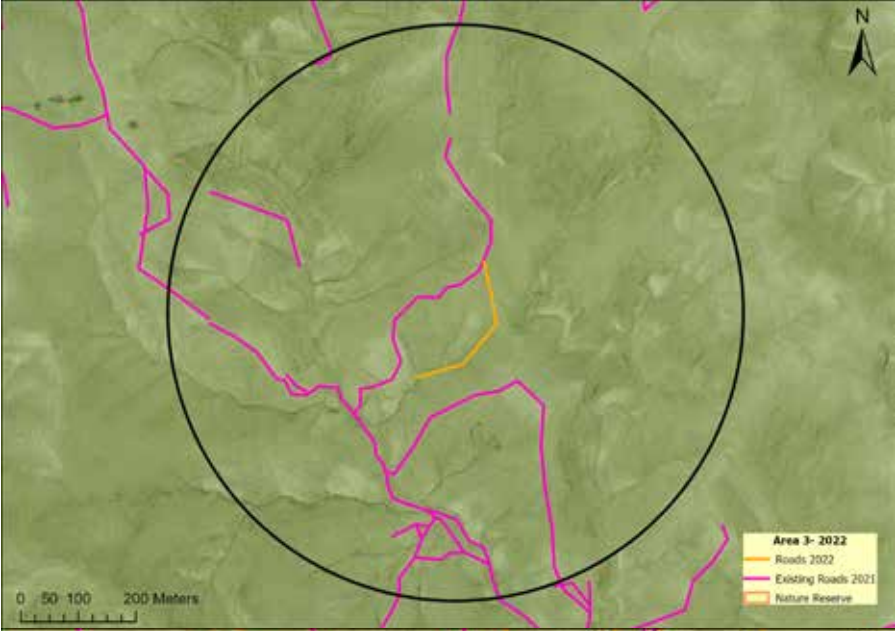
2019

AREA 3 - ROADS

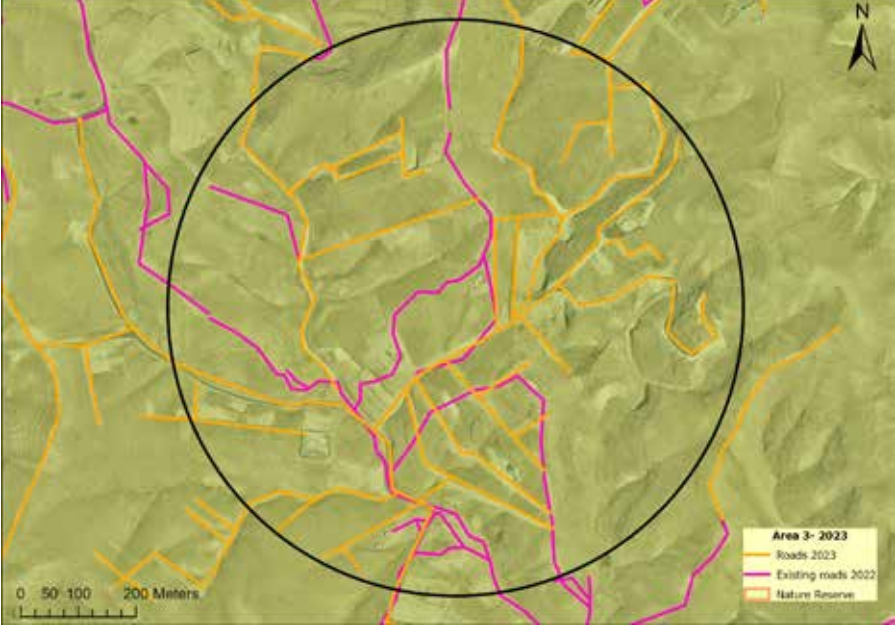
2021



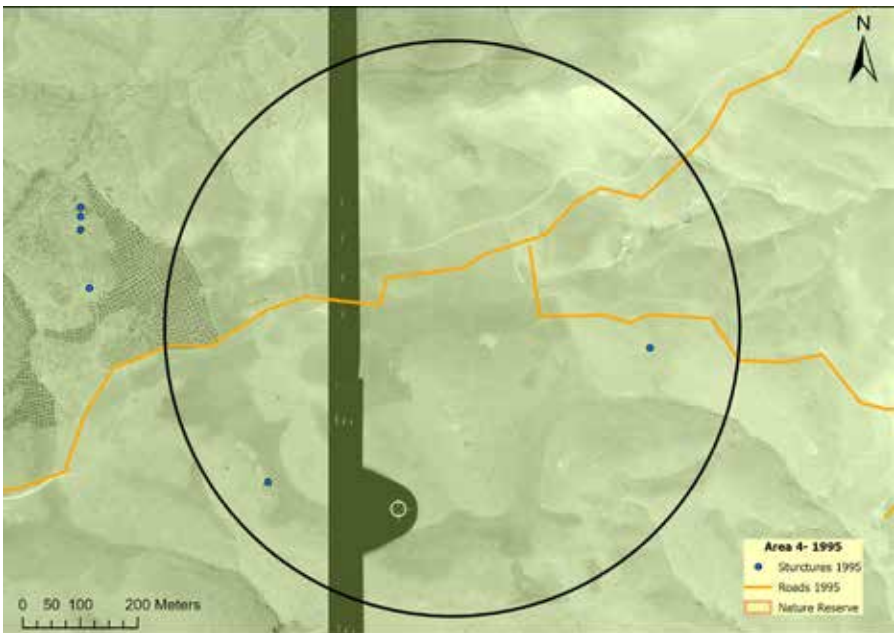
2022



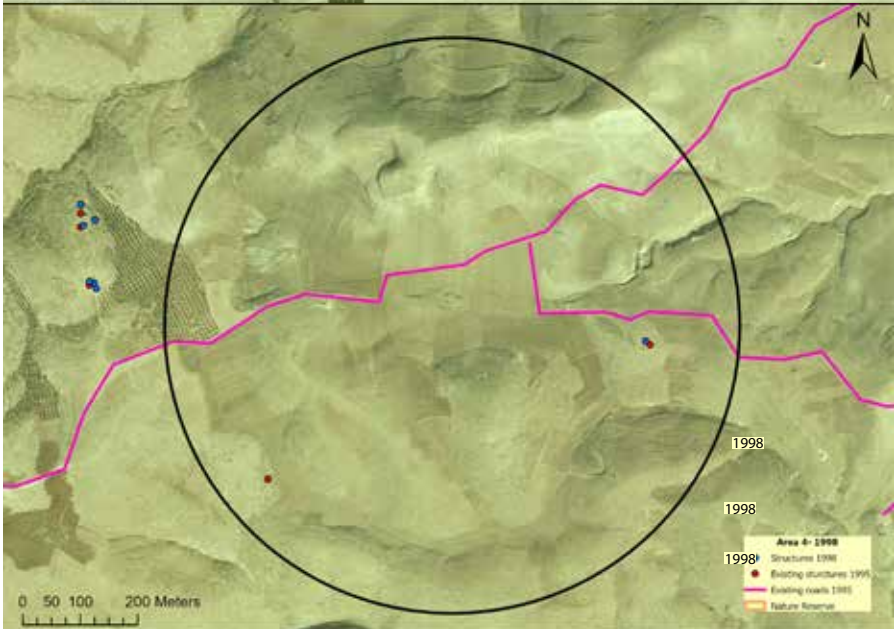
2023



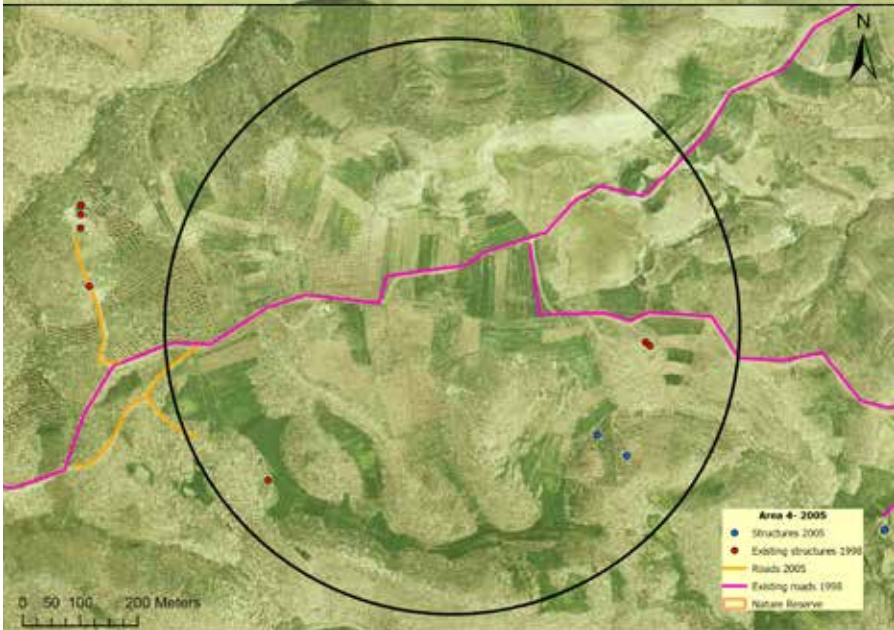
AREA 4 (STRUCTURES AND ROADS)



1995



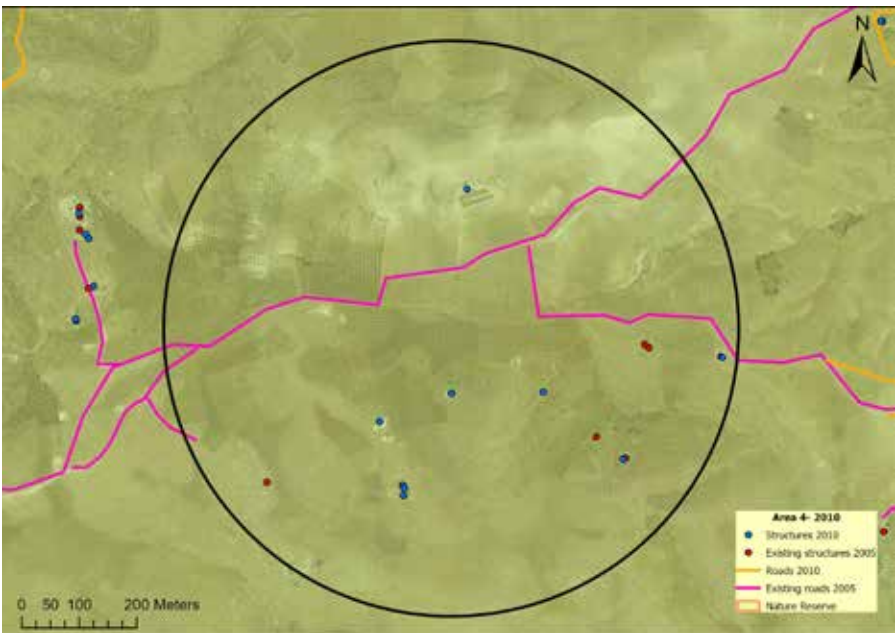
1998



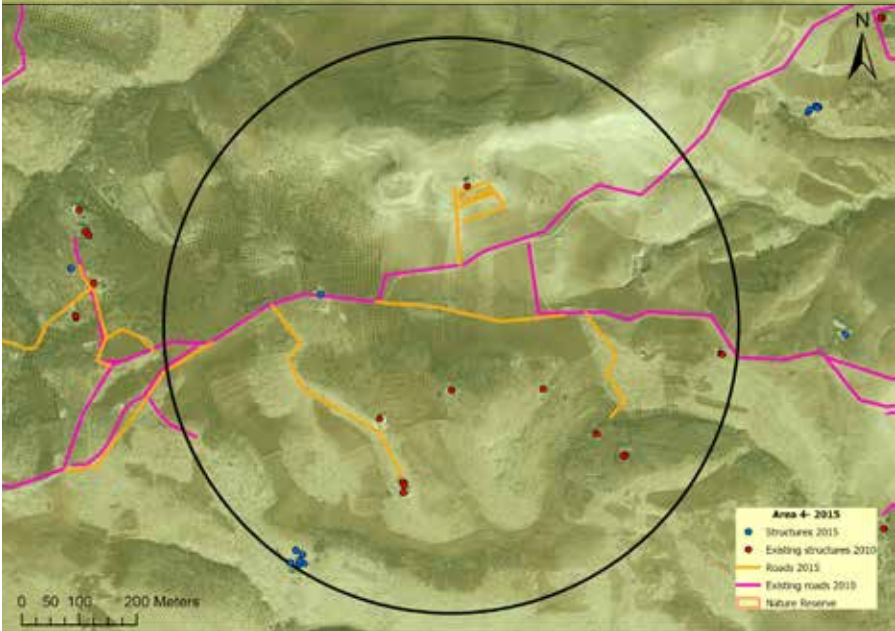
2005

AREA 4 (STRUCTURES AND ROADS)

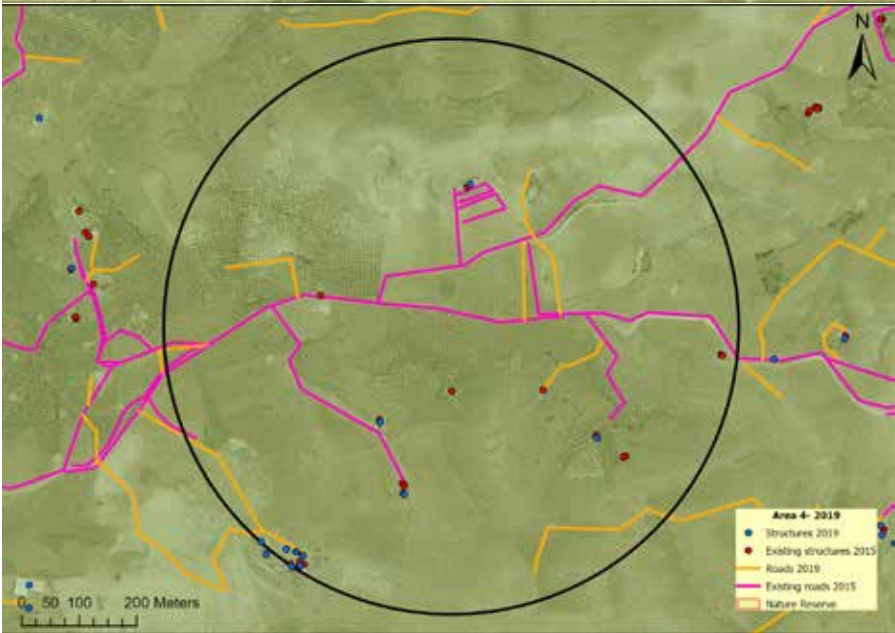
2010



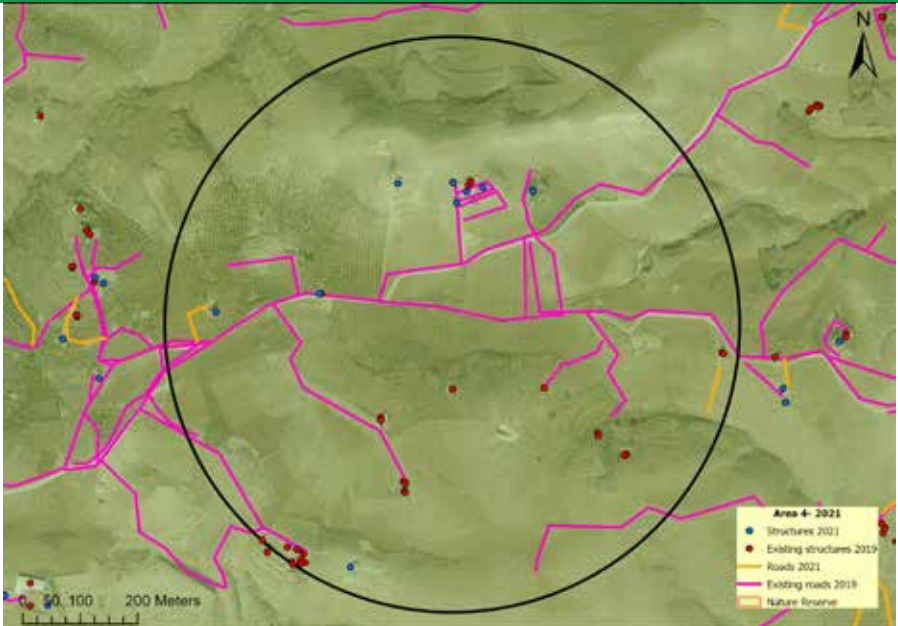
2015



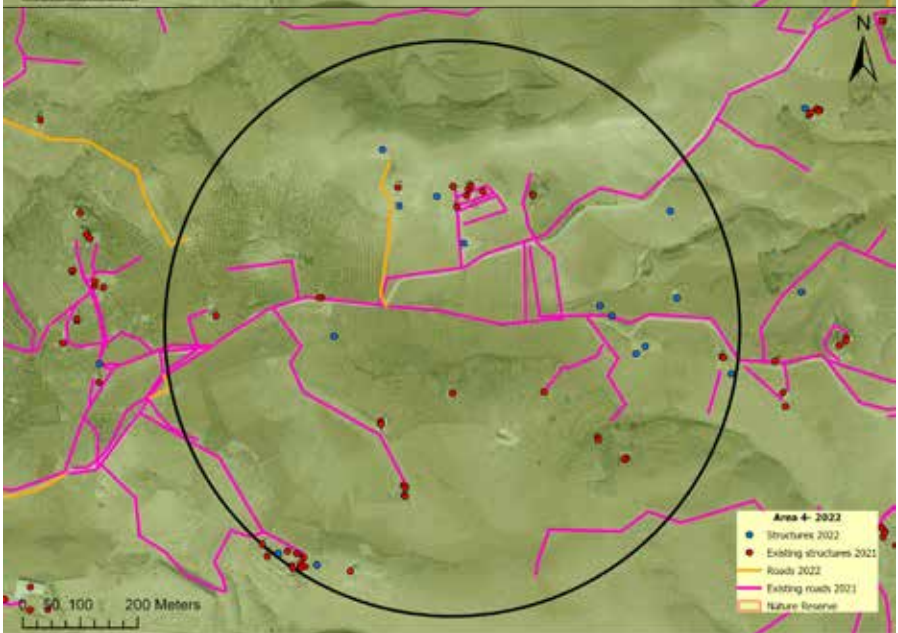
2019



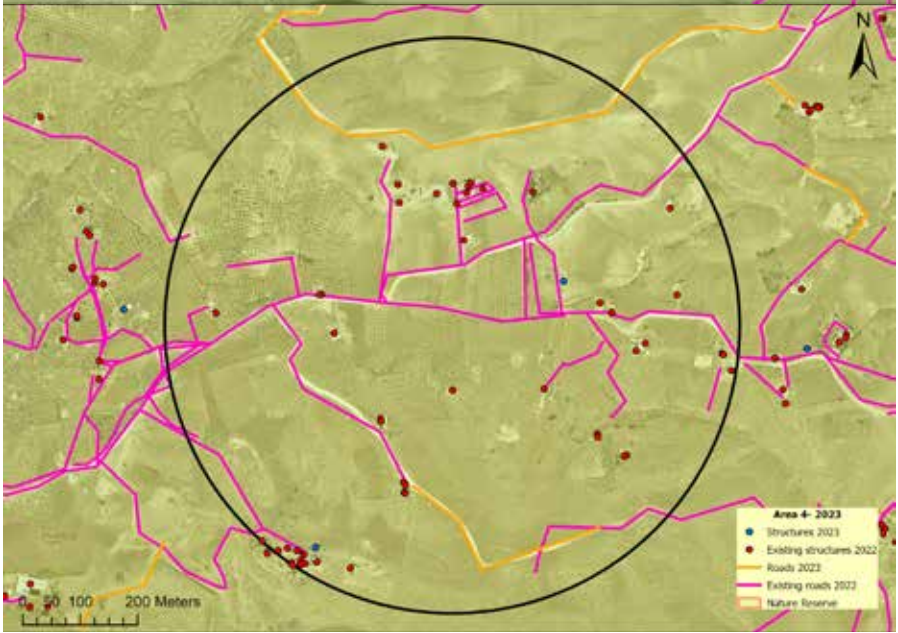
AREA 4 (STRUCTURES AND ROADS)



2021



2022



2023



A network of roads and highways branches off from a cluster of illegal structures in Area 2 (ROADS) into the heart of the Nature Reserve



Construction, developed plots, paths and paved roads, Area 3 (ROADS)



Quarrying, road networks and construction (Area 4)

C. Environmental Hazards

Scattered throughout the Nature Reserve are many small and medium-sized sites used for dumping and burning domestic waste that are easily detected by field inspections or drone photography, but these sites are difficult, if not impossible, to locate in Israeli Mapping Center aerial photographs of the area. In addition, blackened earth caused by fires – spots that were initially large enough to be captured in aerial photographs – may be covered over or fade between one aerial photograph and the next.

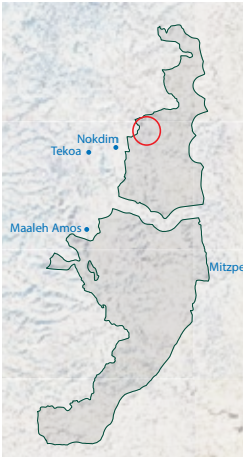
This means that GIS data regarding environmental hazards are only partially helpful, and the findings that can be deciphered from aerial photographs deal only with the central waste disposal sites. These are usually commercial waste incineration sites, whose smoke and smell hazards are the bane of nearby communities.

Year	Waste Dumping or Incineration	Quarrying or Earth Dumping
1995	-	-
1999	-	-
2004	2	-
2010	8	3
2015	6	2
2019	55	5
2021	8	8
2022	6	1
2023	5	12
Total:	90	31

In addition to the scope of these environmental hazards, it is worth noting the location of industrial waste hazards documented in GIS analysis:

Year	Waste Dumping or Incineration	GIS coordinates
2019	Massive waste dump	222491/606521
2021	Large-scale waste incineration in the Za'atara area	1: 198406/114256 2: 204812/114352 3: 201296/121433
2023	Major construction waste dumping site	226487/619146
2023	Massive earthwork dumping site	226490/617627

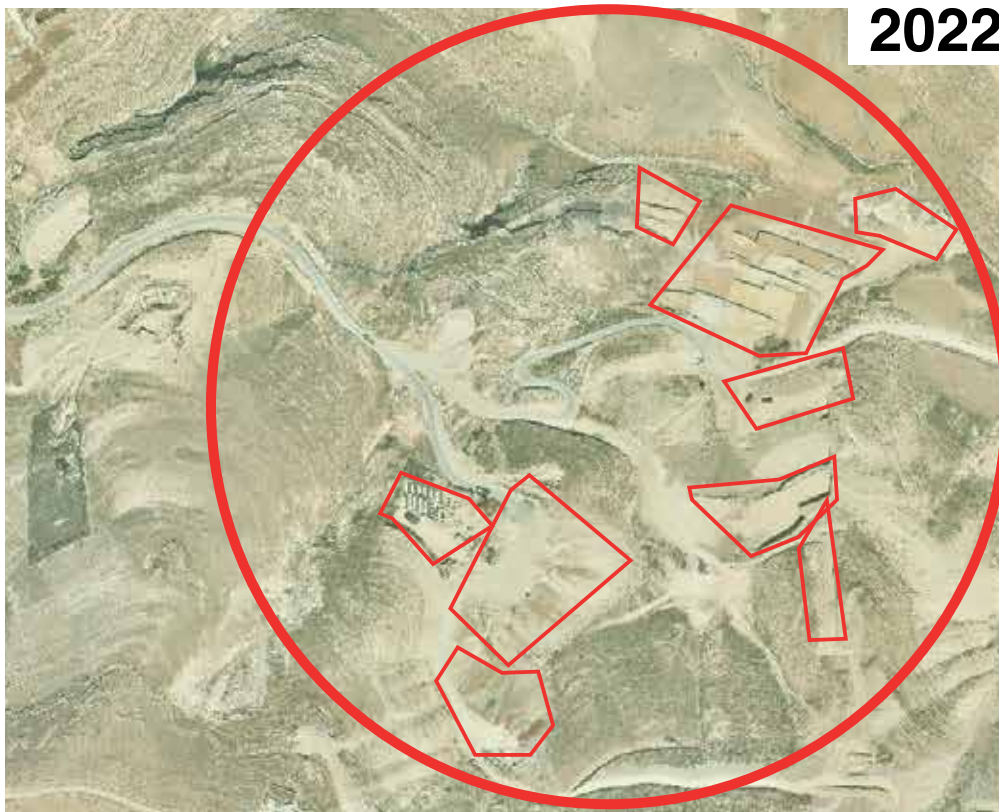
In the series of aerial photographs below, documenting a small area in “New Za’atara” (See above, Construction 1 and Roads 2) from the years 2019, 2021, 2022-2023, **quarrying and dumping sites** are visible:



2019



2021

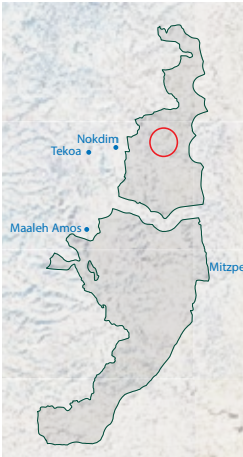


2022



2023

The series of aerial photographs below, dating from the years 2010, 2014, 2019 and 2023, documents a small area east of Za’atara, located much deeper into the desert. Waste collection sites, where **trash is piled up before incineration**, are visible, as well as **areas blackened by earlier incinerations**:



2010

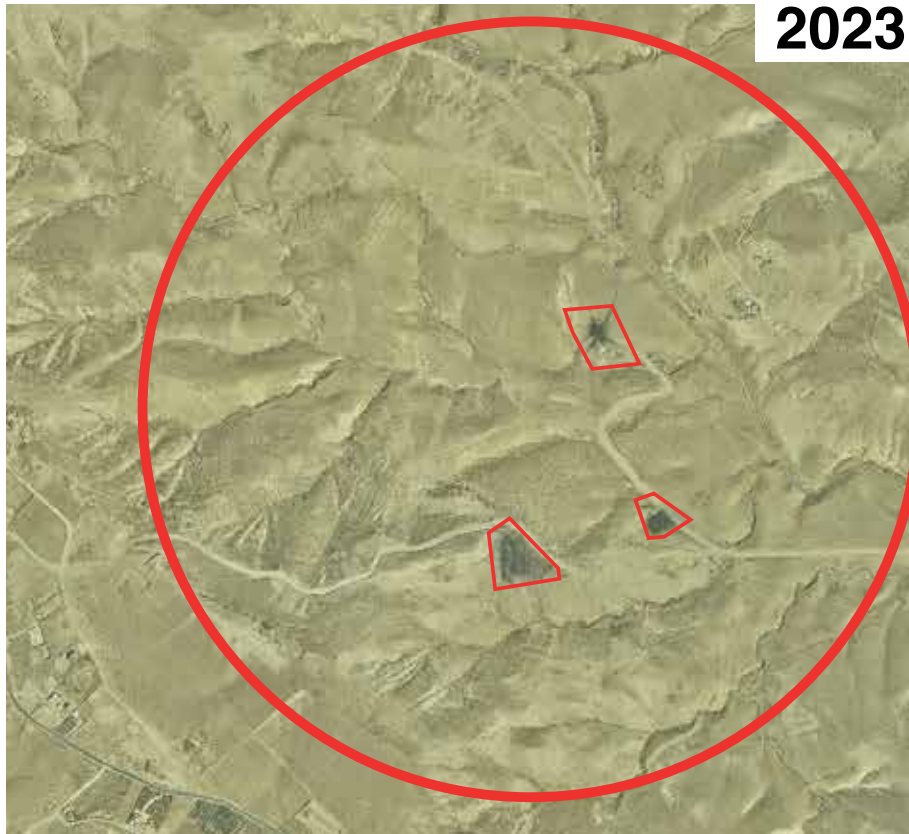


2015

2019



2023





Nachal Arugot quarry 2016



Nachal Arugot quarry 2024



Quarrying along the route of Nachal Arugot



Quarry producing construction materials, roads and cemetery (Area 3)



Quarrying and dumping, Za'atara in the desert



Dumping and incineration of industrial waste in the Nature Reserve

D. Extent of occupancy of structures in the Nature Reserve

In the course of our research, we attempted to determine the extent of structures in the Nature Reserve that are occupied, taking into account that structures that are already occupied exacerbate the environmental harm caused to a greater extent than uninhabited structures, and complicates enforcement options.

Data collection on occupancy was carried out using aerial documentation that inspected illumination of structures at night, as follows: In the course of July 2024, a drone equipped with light-sensitive camera technology documented the area east of Za'atra, in which the construction of the city of Almaleha is underway.

In this designated area, referred to in this report as "Area 1 - Construction" there are some 120 structures. The drone documented the area at 9 pm, when the Nature Reserve is in total darkness and electricity is needed; on the other hand, this early hour of the evening is not generally past residents' bedtime, making artificial lighting a reasonably reliable indicator of occupancy.

Our documentation indicates that roughly one third of the structures in the delineated area were lit at that hour - in other words, inhabited. Nonetheless, the rural Bedouin lifestyle of a significant portion of the inhabitants of other sections of the Nature Reserve would indicate that many unilluminated structures are, in fact, inhabited, which would mean that the estimate of one third-occupancy is an underestimation.



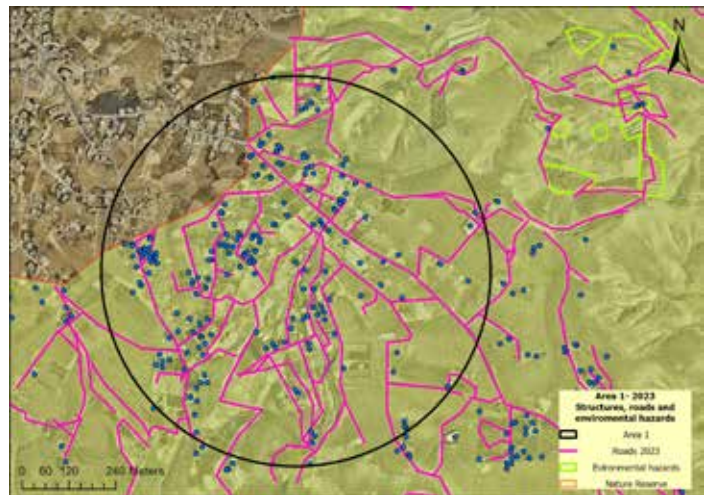
Structures in Area 1 - electrical lighting

E. Summary of Findings

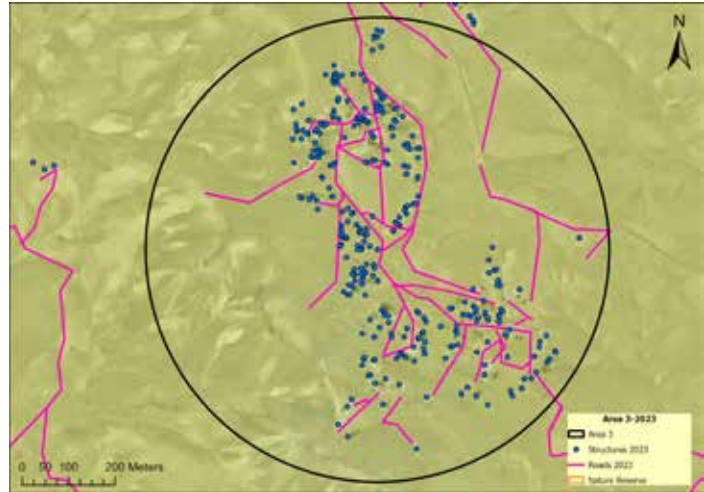
To summarize this chapter: Data reflecting the situation on the ground as of 2023 indicate blatant violation of the 1998 Wye Accords and extensive and irreparable damage to the Judean Desert. The Judean Desert Nature Reserve now suffers from dozens of environmental hazards, 633.7 kilometers of paved and unpaved roads and 3,048 illegal structures, of which at least one third are already inhabited.

Below are aerial photos from 2023 of Area 1 (Construction), 3 (Construction) and 4 (Construction), with illustrative markings of each of the structures, roads and environmental hazards (adjacent to Area 1).

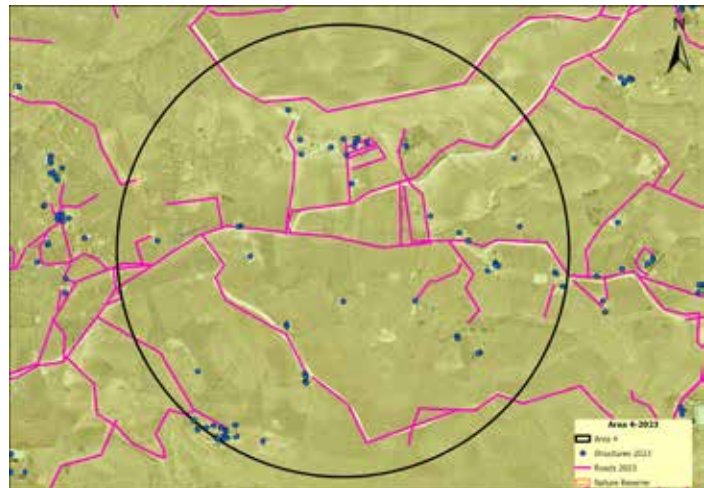
Area 1 (Construction) 2023



Area 3 (Construction) 2023



Area 4 (Construction) 2023





IV. Conclusions

This report reviews the scope of damage to the Judean Desert Nature Reserve, and its findings indicate beyond a doubt that the destruction of the Nature Reserve is progressing by leaps and bounds, thanks to the orchestration, supervision and direct involvement of the Palestinian Authority.

The Palestinian Authority takes a leading role in construction, of infrastructure and road projects in the Nature Reserve, both directly and through subcontractors, planning, oversight and indirect support.

The construction activity that has been carried out over the course of years, the intensive paving of roads crisscrossing the entirety of the Nature Reserve, the creation of infrastructure for mass-scale settlements in the heart of the desert and the woeful roster of environmental abuses have caused enormous damage to the desert landscape, some of it now irreversible.

In light of these findings, it is clear that the Palestinian Authority is violating its obligations under the Wye River Accords and failing to maintain the territory ceded to its jurisdiction as a green area/nature reserve, to prevent new construction or otherwise change the status of the reserve area.

The results of these ongoing violations are well known to residents of the area and hikers who frequent the desert, and in recent years various aspects of the destruction of the Nature Reserve have been occasionally brought to the attention of the public, raised in Knesset committee hearings and brought to the attention of ministers and other government officials. Nonetheless, in the past three years, the extent of damage to the Nature Reserve has seen an unprecedented, exponential surge,

The Israeli government has not yet begun to address the issue systematically or to contend with it in practical terms, due to the legal and political complexities involved as well as the lack of a comprehensive situational picture of the situation on the ground.

We recommend that the Israeli government urgently draft and implement a systematic plan of action to prevent further damage to the desert landscapes and to reverse as much of the existing damage as possible.

The findings presented above will be followed by a separate analysis that will include a legal opinion regarding the responsibility of the State of Israel for the protection of the Nature Reserve, and a survey of available courses of action in light of the Palestinian Authority's violation of the Wye River Accords and other legally binding agreements. Political obstacles and similar challenges will also be presented, and recommendations for policy formulation will be made.

Subsequent reports will also recommend prevention, enforcement, environmental and diplomatic tools to contend with the situation on the ground, some of which have been presented in the pages above:

- Formulation, budgeting and immediate implementation of a program for direct enforcement against illegal construction, road paving, infrastructure projects and environmental hazards that violate the Wye River Accords;
- Promoting preventive enforcement measures such as blocking the entry of heavy machinery, landscaping and engineering tools and construction materials into the Nature Reserve and seizing any and all such materials found in the designated territory of the Nature Reserve;
- Applying indirect economic pressure on the Palestinian Authority to comply with its commitments under the Wye River Accords, such as suspending exports of agricultural and industrial products from Judea and Samaria to the Israeli market and enforcing the law barring entry of Israelis, including Israeli Arabs, into areas under Palestinian Authority jurisdiction (effectively ending “economic tourism”);
- Applying to international environmental tribunals through the Ministry of Environmental Protection as a means of bringing international pressure to bear on the Palestinian Authority;
- Engaging in diplomatic and political activity through the Ministry of Foreign Affairs to demand that foreign governments and international economic bodies cease their involvement in construction and other projects that are damaging the Nature Reserve, activities that are a blatant violation of international law.

Time is running out. The desert is being ravaged by illegal activity, right before our eyes.

