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TRULY UNPRECEDENTED:

How the Helmand Food Zone supported an increase in the province's capacity to produce opium

David Mansfield

October 2017

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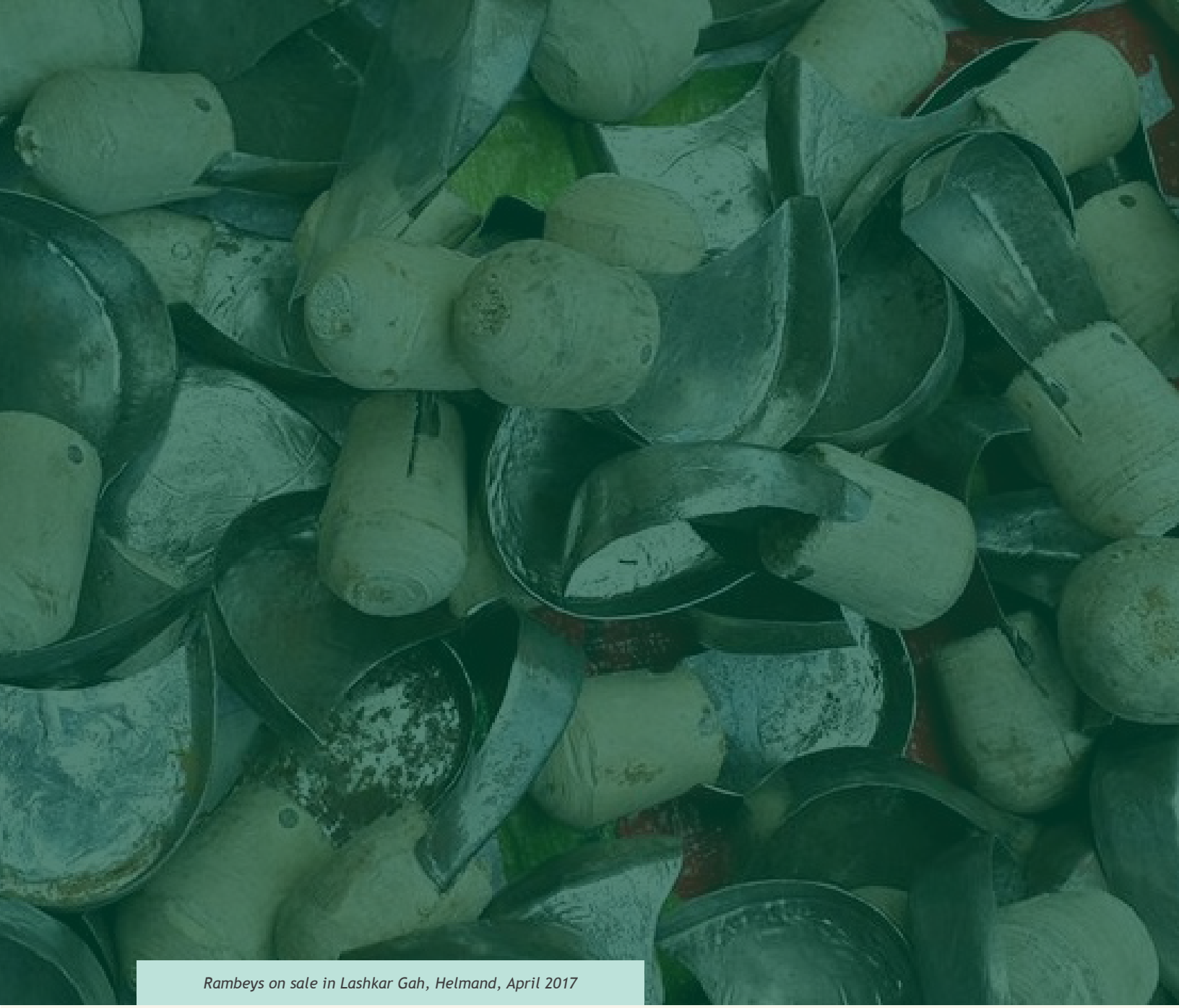

Rambeys on sale in Lashkar Gah, Helmand, April 2017

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About the Afghanistan Research and Evaluation Unit

The Afghanistan Research and Evaluation Unit (AREU) is an independent research institute based in Kabul. AREU's mission is to inform and influence policy and practice by conducting high-quality, policy-relevant research and actively disseminating the results, and by promoting a culture of research and learning. To achieve its mission AREU engages with policy makers, civil society, researchers and students to promote their use of AREU's research and its library, to strengthen their research capacity, and to create opportunities for analysis, reflection and debate.

AREU was established in 2002 by the assistance community in Afghanistan and has a Board of Directors comprised of representatives of donor organisations, the United Nations and other multilateral agencies, and non-governmental organisations.

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About the Author

David Mansfield is a Senior Fellow at the London School of Economics. He has been conducting research on rural livelihoods and poppy cultivation in Afghanistan for twenty consecutive growing seasons. He has a PhD in development studies from the School of Oriental and African Studies, London and is the author of A State Built on Sand: How opium undermined Afghanistan. David has worked for AREU since 2005.

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CONTENTS

ACRONYMS

ANSDF	Afghan National Security and Defence Forces
AREU	Afghan Research and Evaluation Unit
AVIPA	Afghanistan Vouchers for Increased Production in Agriculture
CERP	Commanders Emergency Response Program
DFID	Department for International Development
EU	European Union
INGO	International Non-Governmental Organisation
GIZ	Gesellschaft für Internationale Zusammenarbeit
GIRoA	Government of the Islamic Republic of Afghanistan
GMO	Genetically Modified Organism
GLE	Governor Led Eradication
GPS	Global Positioning System
HARDP	Helmand Agriculture and Rural Development Program
HFZ	Helmand Food Zone
HPRT	Helmand Provincial Reconstruction Team
INL	Bureau of International Narcotics and Law Enforcement Affairs
MIS	Management Information System
MoFA	Ministry of Foreign Affairs
MoI	Ministry of Interior
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organisation
NPPs	National Priority Programmes
PEF	Poppy Elimination Force
UN	United Nations
UNDP	United Nations Development Program
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

1. INTRODUCTION

The goal of the Helmand Food Zone (HFZ) was to bring about a rapid and significant reduction in opium poppy cultivation. It was funded directly by the UK and US governments to the tune of between US$12 and $18 million per year between the autumn of 2008 and 2012. The program ran alongside a massive increase in the number of international and Afghan military forces fighting in Helmand and increases in the amount of development assistance known as "the surge." Over the course of the HFZ and the surge the North Atlantic Treaty Organization (NATO) helped the Government of the Islamic Republic of Afghanistan (GIRoA) extend its writ across central Helmand; security bases were placed "on every junction," access to government services including health and education improved substantially, and the level of opium poppy cultivation fell dramatically from 103,590 hectares in 2008 to 63,307 hectares in 2011. But where do things stand now, five years since the end of the HFZ and three years after the withdrawal of foreign military forces from Helmand? This report draws on in-depth fieldwork and high-resolution imagery between 2008 and 2017 to reveal how unsustainable the HFZ and the surge have proven. It is one of a series of reports funded by the European Union's "Opium, Water and Livestock" project. This project is designed to provide policy tools to the Afghan government, donor community and practitioners to improve management of natural resources in three key areas: area-based poppy control strategies, national groundwater management and conflict prevention between nomad and settled populations. Reports to follow examine the sustainability of the settlement and agricultural production in the former deserts of Southwestern Afghanistan.

This report is divided into five further sections. The next section offers a brief outline of the methodology, and explains how a combination of geospatial data and well-focused fieldwork over a number of years can offer a robust account of livelihood trajectories even in highly insecure areas such as central Helmand. The third section documents the origins of the Helmand Food Zone and how those responsible for its design failed to reflect on the lessons learned from other supply side interventions in Afghanistan and in other illicit drug crop producing countries. The fourth section examines the challenges of implementation and the significant reductions in opium poppy cultivation that accompanied both the Food Zone and the surge between 2008 and 2012. The fifth section draws on the most recent round of fieldwork in central Helmand, and with high resolution imagery, documents the resurgence in opium poppy cultivation in the Food Zone as well as its causes. This section also provides a detailed account of the transformation of the former desert areas north of the Boghra canal and how technological innovation has helped farmers overcome successive years of poor yields and expand opium poppy cultivation in 2017. Finally, the conclusion highlights the role the HFZ played in what are unprecedented levels of opium poppy cultivation in Helmand in 2017 and shows how difficult it will be for GIRoA to wrest back control of central Helmand, in part as a consequence of the HFZ and its attempt to ban opium production.

2. METHODOLOGY

The paper is based on in-depth fieldwork and high-resolution imagery undertaken in April and May 2017 in 20 research sites in central Helmand. In total 300 interviews were conducted with rural households: 180 interviews in 12 research sites within the Helmand Food Zone, and 120 interviews in 8 research sites to the north of the Boghra canal (see Figure 1). Supplementary data collection was also collected from those providing services to these communities, including those trading in herbicides, solar panels, and diesel. This paper also draws on a body of fieldwork in these same research sites that dates back to 2008.[1]

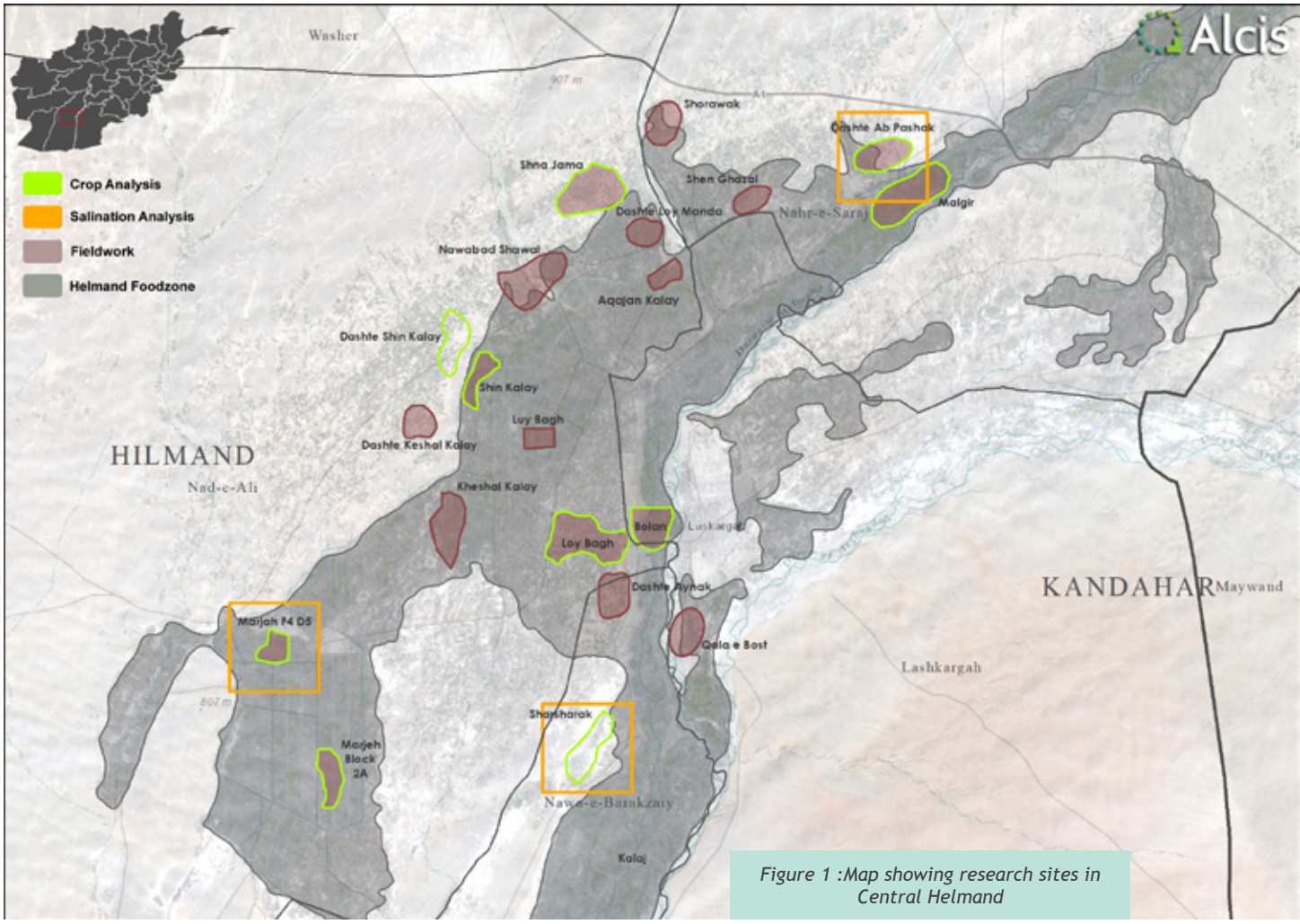


Figure 1 :Map showing research sites in Central Helmand

This body of historical data consists of a total of 3,460 individual interviews, which were conducted every six months over seven consecutive years and that by May 2011 came to cover 28 distinct Research Sites (RS), including seven in the desert area to the north of the Boghra canal. The first round of fieldwork was conducted in November/December 2007 (N 42) but covered only seven RS; the second round in November/December 2008 (N 99) covered ten RS; the third round in November/December 2009 (N 112) covered 11 RS; the fourth round in April/May 2010 (N 87) covered 11 RS; and the fifth round in November/December 2010 (N 360) covered 23 RS. From the sixth round in April/May 2011 (N 447) until November 2013, 28 RS were covered. The seventh round was in November/December 2011 (N 373); the eighth round was in April/May 2012 (N 462); the ninth round was in November/December 2012 (N 404); the tenth round was in April/May 2013 (N 462); and the eleventh round was in November 2013 (N 472). The last round of fieldwork consisted of 140 in-depth interview conducted in ten RS in May 2015.

High-resolution, remote sensing imagery was integral to the research design. Geospatial data was used to identify research sites based on their histories of poppy cultivation, crop destruction and development assistance, including the wheat seed and fertiliser provided under the Food Zone Initiative. To capture how responses to the Helmand Food Zone vary by location, socio-economic, group and resource endowments, geospatial data on vegetative index, proximity to markets, and cropping seasons was also used in the selection of research sites.

Remote sensing imagery was then used to verify that fieldworkers had been to the identified sites, and examined the results of primary data collection. The high-resolution imagery allowed further exploration of primary research findings: identification of crops under cultivation and of new or damaged physical infrastructure, and measurement of changes in the area under cultivation. Finally, geospatial analysis supports the extrapolation of research findings over a wider geographic beyond the research sites themselves.

A team of local researchers undertook fieldwork. The research addressed the inherent problems associated with primary data collection when researching an illegal or underground activity by focusing its enquiry on household livelihood strategies. The pressure to act against opium cultivation and trade has made illicit drugs a more sensitive topic for discussion with farmers and other stakeholders than was the case in the 1990s and early 2000s. However, the rural household remains the most accessible unit of analysis when looking at the opium economy in Afghanistan; it offers a basis for cross-referencing findings both with other work on rural livelihoods in Afghanistan, and with other research on the specific role of opium production in rural livelihood strategies in Afghanistan and elsewhere. Discussions in the field focused on the direct experience of respondents and their households rather than on a wider geographic area, where answers become increasingly speculative.[2] Individual interviews with farming households were conducted in the field as farmers tended their crops, since holding interviews in the household compound can attract attention from others and become subject to repeated interruptions and biases. Group discussions with farmers were avoided, as they tend to be dominated by community elites; are inappropriate for discussing sensitive issues; and, increasingly represent a security threat in rural Afghanistan, particularly in the south.

2 Swedish Committee for Afghanistan, "Farming Systems of Nad Ali District, Helmand Province," in *Agricultural Survey of Afghanistan, Report 15* (Peshawar: SCA, 1992), 1.

Desert area north of Boghra canal, Helmand irrigated by reservoir filled using soar powered tubewell.

3. THE HELMAND FOOD ZONE: ITS ORIGINS AND PURPOSE

3.1. THE HFZ: WHAT IT SET OUT TO ACHIEVE

The Helmand Food Zone (HFZ) was launched in the fall of 2008.[3] It was driven by the Helmand Provincial Reconstruction Team (HPRT) and the Governor at the time - Mohammed Gulab Mangal - and their desire to see a dramatic reduction in opium production in central Helmand.[4],[5] Both the HPRT and Governor Mangal argued that the elimination of cultivation would symbolise the extension of government writ within the canal command area of central Helmand, and serve to reduce funding for the Taliban,[6] who the United Nations Office on Drugs and Crime (UNODC) claimed earned the equivalent of ten percent of the farmgate value of the opium crop.[7]

3 David Mansfield, *A State Built on Sand: How Opium Undermined Afghanistan* (New York City: Oxford University Press, 2017), 237.

4 Office of the Governor of Helmand, "Short Term Provincial Counternarcotic Strategy" (Proposal, 2nd Draft, 6 July 2008).

5 Mansfield, *State Built on Sand,* 227.

6 Carter Malkesian, *War Comes to Garmser: Thirty years of conflict on the Afghan frontier* (New York City: Oxford University Press, 2013), 140.

7 J.A. Dressler, "Counter Insurgency Helmand: Progress and Remaining Challenges" (*Afghanistan Report 8,* Washington DC: Institute for the Study of War, January 2011) http://www.understandingwar.org/sites/default/files/Afghanistan_Report_8_emailopt.pdf.

The origins of the HFZ concept lay with two international advisers, one in the HPRT and the other in the Governor's office. Both former military men with no prior experience in drug control, Afghanistan or rural development, set out a plan that appealed to Governor Mangal and the senior leadership at the HPRT. The plan for the HFZ contained the traditional hallmarks of a drug control program, including a mixture of "carrots" and "sticks" that conventional wisdom of many of those involved in drug control efforts believed were prerequisites for farmers to abandon opium poppy cultivation.

The plan was simple; communities in central Helmand would be offered incentives - the carrot - in the form of development inputs, as well as threatened with disincentives - the stick - of law enforcement to dissuade them from opium poppy cultivation. In its initial iteration the HFZ offered around 40,000 land-owning farmers a package of improved wheat seed and fertiliser; both Urea and Diammonium Phosphate (DAP). Subsequent campaigns under the HFZ also offered seeds for spring cultivars alongside fertiliser. For example in the 2009/10 growing season a package of vegetable seeds for the spring and summer cropping season, along with fertilizer was offered by the United States Agency for International Development (USAID). In the fall of 2010 farmers were offered a choice of a base package of 50 kilogram certified wheat seed, 100 kilogram urea and 100 kilogram DAP combined with either a 'Forage Package' or a 'Winter Vegetable Package.' The Food Zone programme was also supported by the distribution of grape vine and saplings as well as vegetable seeds, fertiliser and polytunnels under the Afghanistan Vouchers for Increased Production in Agriculture (AVIPA) Plus programme implemented by International Relief and Development.[8]

Those farmers that received these agricultural inputs did so on the proviso that they sign an agreement to cease poppy cultivation altogether.[9],[10] This is a type of agreement that is typically referred to as "conditionality" but more recently has been termed a "social contract" by UNODC.[11] In terms of disincentives the initial plan was for the HFZ to incorporate a range of law enforcement efforts that included action against traffickers and processing facilities as well as crop destruction.[12],[13] However, it proved difficult to

8 The Forage Package contained 10 kilogram of Alfalfa seeds and the Winter Vegetable Package consisted seeds for Spinach (500 grams) Cauliflower (100 grams), Cabbage (100 grams), Cucumber (500grams) and White Radish (400 grams).

9 Office of the Governor of Helmand, "Short Term Provincial Counternarcotic Strategy" (Proposal, 28 May 2009).

10 Dressler, "Counter Insurgency Helmand," 29).

11 For example, UNODC's Strengthen and Diversify Licit Livelihoods through Alternative Development Interventions was launched in September 2016 with US$20 million from the Bureau for International Narcotics and Law Enforcement of the Department of State. This project includes what UNODC refer to as a social contract, which are "signed between the beneficiary and community representatives to assure that the beneficiaries do not resume poppy cultivation or related activities". Despite evidence to the contrary, this proposal states that "[these] proposed activities are based on the lessons learned and best practices identified through earlier projects. These activities have demonstrated a sustainable improvement in the quality of life of the target communities and have been proven to have an impact on counter-narcotics at the community level." See Project proposal UNODC Sub-Program 3 - Alternative Development, Strengthen and Diversify Licit Livelihoods through Alternative Development Interventions, September 2016 - August 2020. Proposal to INL.

12 Office of the Governor of Helmand, "Short Term Counternarcotic Strategy" (2008).

13 Mansfield, *State Built on Sand*, 262.

coordinate and target what was largely a separate interdiction effort under the auspices of Afghan and foreign law enforcement officials. This left those with the responsibility for the management of the HFZ with crop destruction as their only tool for discouraging opium production.

To further complicate matters, the crop destruction itself was implemented by two separate entities each with their own incentives and lines of command. The first was Governor Led Eradication (GLE) that answered directly to the provincial governor in Helmand and received their target package from the provincial eradication sub-commission. The second was the Poppy Elimination Force (PEF), which although receiving its instructions from the Ministry of Interior in Kabul, was ultimately tasked by its sole donor, the International Narcotics and Law Enforcement Affairs Bureau (INL) of the Department of State.

To tie these different components of the HFZ together there was an information campaign that would be launched in the fall of each year with Governor Mangal at the helm. This campaign consisted of publicity materials, such as posters and stickers, and an outreach programme of meetings with elders and leaders from local communities that often involved the Governor himself, and senior leadership from the HPRT. Due to the level of violence and insecurity in central Helmand in 2008 and 2009 these meetings would regularly require UK air assets to transport Governor Mangal to the district centres.

The intention of this initiative was to raise awareness of the HFZ and its objectives amongst farmers and rural communities in the hope of deterring cultivation, primarily by increasing the perceived threat of eradication in the spring if farmers did not comply.

3.2. THE HFZ: A STEP BACK IN TIME?

Even at the time the HFZ appeared a retrograde step to those more familiar with drug control and development efforts in Afghanistan. On the surface HFZ had all the hallmarks of the kind of crop substitution programmes that had been implemented in the name of drug control in opium and coca producing countries in the 1980s. Such programmes typically consisted of short-term agricultural assistance and development monies tied to communities - even individual farmers - agreeing to abandon opium production.[14]

Yet, crop substitution had fallen out of favour more than a decade prior to the HFZ launch - even amongst a drug control community who were not always well versed in good development practice.[15] Experience in Southeast Asia had shown that crop replacement was a necessary but insufficient condition for farmers to transition out of opium production. It had been found that improved seeds and better yields for legitimate crops only went so far in the absence of passable roads, market support, better access to health and education and non-farm income opportunities.[16]

Since the 1990s drug control organisations such as UNODC had advocated "Alternative Development," a model more akin to Integrated Rural Development. Alternative development programmes broadly consist of support to a wide a range of sectors that are designed to strengthen and diversify farmer income while deterring drug crop cultivation through ties to law enforcement, including eradication.[17] However, programmes will often vary in design and implementation with some donors, such as the United States Government (USG) and UNODC, placing much greater emphasis on crop destruction and making development

14 David Mansfield, "Alternative Development in Afghanistan: The Failure of Quid pro Quo" (Unpublished paper produced for GIZ, August 2001), 7.

15 East West Initiative "Afghan Narcotrafficking: Finding an Alternative to Alternative Development" (Joint US-Russian Working Group on Afghan Narcotrafficking, July 2016).

16 UNODC, "Alternative Development" (World Drug Report, Vienna: United Nations, 2015), 79, http://www.unodc.org/documents/wdr2015/WDR15_Chapter_2.pdf.

17 UNODC, "Thematic Evaluation of UNODC Alternative Development Initiatives" (Report for the Independent Evaluation Unit, November 2005) https://www.unodc.org/documents/evaluation/ProjEvals-2005/2005-alternativedevelopment.pdf.

assistance contingent on a schedule of reductions in opium poppy and coca, sometimes insisting that the crops are eliminated prior to any development support. Other donors, such as Gesellschaft für Internationale Zusammenarbeit (GIZ) barely distinguish between alternative development and rural development. The contrast between the two extremes has led to some confusion, with UNODC's own Independent Evaluation Unit stating: "There is no universally accepted definition of Alternative Development operating around the world across agencies and writers, despite the UNGASS definition of 1998."[18]

In Afghanistan there was an attempt to refine the development approach to illicit drug crop cultivation through a shift away from alternative development to what became known as "alternative livelihoods." This move to alternative livelihoods was driven by the government of the United Kingdom (UK) during its tenure as lead nation on drug control in Afghanistan under the security sector reform program devised in 2002, but gained support from the European Union,[19] the Asian Development Bank[20] and the World Bank.[21]

Alternative livelihoods arose in part as a consequence of the development community's rejection of crop substitution and then alternative development as a model, as well as concerns over UNODC's capacity as an implementing agency for rural development programmes. A Department for International Development (DFID) review concluded that "[UNODC][22]'s development projects appear no different from the numerous other small-scale inputs (schools, irrigation, health centres etc.) being made by the NGOs and other development orientated UN agencies. The latter agencies at least have experience in and some comparative advantage in development. It would not appear to be cost effective to fund UNDCP as an intermediary to build schools etc. when they simply contract out to others to do the work. We are also concerned that excessive UNDCP attention to a myriad of projects distracts attention away from the area of comparative advantage which relate to their mandate as a specialist drugs agency."[23]

The failures of the [UNODC] projects of the 1980s and 1990s meant they were very hard to sell to an international development community and an Afghan government that was at the forefront of delivery in rural areas following the collapse of the Taliban regime. For example, UNODC's own review of its Afghanistan Drug Control and Rehabilitation Programme (ADCRRP), which ran from 1989 to 1996, concluded "It is a disturbing fact that as yet there is insufficient evidence to state positively that the programme of alternative development had made any reduction to opium production…Projects undertaken in the provinces have been scattered and cannot be linked to any specific reduction."[24],[25] Moreover, the negative

18 The evaluation went further arguing that "After 30 years it would seem that the world community would agree on what Alternative Development is. Unfortunately, interviews with AD practitioners and policy makers, and examination of written materials from many sources confirm a lack of agreement on what AD is, on how AD should be implemented, and on what results should be expected from AD. The various uses of the terms, "Alternative Development," "process" and "measures" very much depend on the writer's point of view with policy theorists, donors, national governments, local officials (including army and police officers) and even villagers, having different perspectives on the meaning of AD." See UNODC, "Thematic Evaluation," ix, 5-8.

19 European Commission, "Country Strategy Islamic Republic of Afghanistan, 2007-2013" https://eeas.europa.eu/sites/eeas/files/csp_afg_07-13_en.pdf.

20 Asian Development Bank, "Counternarcotics Mainstreaming in ADB's activities in Afghanistan, 2002-2006" (Unpublished Report by David Mansfield, Manila, Philippines: ADB, 2007) http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1202156192201/4638255-1202156207051/fullreportAfghanistanOpiumIncentives.pdf.

21 World Bank, Department for International Development, "Afghanistan - Economic Incentives and Development Initiatives to Reduce Opium Production" (February 2008) http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1202156192201/4638255-1202156207051/fullreportAfghanistanOpiumIncentives.pdf.

22 For ease of reference, this paper uses the acronym UNODC. It is, however, important to recognise that prior to 2002 UNODC was known as the Office of Drug Control and Crime Prevention (ODCCP) and consisted of United Nations Drug Control Programme (UNDCP) and the Crime Prevention and Criminal Justice Division.

23 Mukesh Kapila, Guy Templar and Elizabeth Winter, "Review of British Aid to Afghanistan" (Emergency Aid Department/Western Asia Department, Overseas Development Administration, June 1995), 52.

24 UNDCP, "Assessment Strategy and Programming Mission to Afghanistan" (May - July 1995), 23-24. Reviews of the later program, the Afghan pilot program that ran between 1997 and 2000, were equally critical.

25 For more detail see East West Initiative, "Afghan Narcotrafficking," 17-18.

perception that these projects consisted of little more than crop substitution lived on amongst both international and national development agencies despite UNODC's shift to alternative development.[26]

owever, alternative livelihoods also emerged as a function of the changes in development thinking at the turn of the 21st century.[27] At the close of 2001 when the international community was planning its response in Afghanistan it was prioritising broad sectoral programmes in health, education, rural development, and security. In theory, programmes would be national in nature, working through government ministries and line departments, implemented in parallel with other interventions in the same districts and villages.[28]

For these reasons, alternative livelihoods was intended to reject the area-based alternative development projects of the past where UNODC would set up an enclave and tie development assistance directly to reductions in drug crop cultivation (see Box 1).[29] Instead, alternative livelihoods called for all relevant development programs to integrate the causes of the production, use and trafficking of opiates into all aspects of their program cycle. This is a position that was supported by the Afghan Government's National Development Framework in 2006[30],[31] and by the World Bank in the development of its Counter Narcotics MainstreamingGuidelines.[32]

26 UNODC, "Alternative Development," 84, 118.

27 East West Initiative, "Afghan Narcotrafficking," 20.

28 Ibid.

29 Ibid.

30 Government of the Islamic Republic of Afghanistan, "Afghan National Development Strategy: A Strategy for Security, Governance, Economic Growth and Poverty Reduction (2008-2013)" (2008), I.

31 Government of the Islamic Republic of Afghanistan, "National Drug Control Strategy: An Updated Five Year Strategy for Tackling the Illicit Drug Problem" (Ministry of Counter-Narcotics, January 2006), 7, 15).

32 C. Ward, D. Mansfield, P. Oldham, and W. Byrd, "Afghanistan: Economic incentives and development initiatives to reduce opium production" (Report for the World Bank and the Department for International Development).

Box 1: What are the differences between "alternative development" and "alternative livelihoods"? [33]

	Alternative development	Alternative livelihoods
Characteristic feature	Discrete area-based project approach	Mainstreaming of counter narcotics objectives into national development strategy and programming
Problem analysis	Problem definition usually limited to the presence of illicit drug crops within a specific area	Analysis of the drivers of the opium poppy economy
Agenda	Primarily reduction of illicit drug crop cultivation – treating the symptoms of cultivation	A wider state-building and development agenda – addressing the causes of cultivation
Actors	Designed and implemented by both national and international drug control organisations	Designed and implemented by development actors, coordination and technical support from drug control bodies
Method of implementation	Attempts to replace on-farm income generated by coca and opium poppy	Address the factors that influence households' drug crop cultivation
Impact assessment	Measured in reduction of hectares of illicit drug crop cultivation	Measured in both human development terms as well as drug control indicators; seeks to understand the processes that influence households in their shift from illicit to licit livelihoods
Strengths	Previously the only way of delivering development assistance to marginalised illicit drug crop-producing areas	Recognises overlap between development and drug control agendas; part of national development strategy
Weaknesses	Poor understanding of the process of change from licit to illicit livelihoods – often reduced to adoption of "conditionality clause" Rarely linked to wider national development strategy Ignores broader role of illicit drug crops Little consideration of key development issues, poverty, gender and environment	Danger of being reduced to alternative income source projects and ignoring the broader institutional issues Complex to implement

While alternative livelihoods was meant to represent a paradigm shift, there was a desire to avoid breaking from the past entirely for fear of losing one of Afghanistan's largest donors, the United States Government. As one senior UK official at the time commented, "the term alternative livelihoods was sufficiently similar to alternative development for the USG to understand."[34] For this reason there was some continuity in the nomenclature.

The UK's role in rethinking the development response to illicit drug crop cultivation meant it was all the more surprising when its own advisers in the UK-led HPRT pursued what was ultimately an annual crop substitution plan. Furthermore, the HFZ's focus on wheat seed and fertiliser abandoned past lessons and only made matters worse. Other crop substitution programmes, such as those in Latin America and Southeast Asia, had typically sought to replace coca and opium with a range of cash crops such as coffee,

33 D. Mansfield, and A. Pain, "Alternative Livelihoods: Substance or Slogan?" (Kabul: Afghanistan Research and Evaluation Unit Briefing Paper, October 2005), 4.

34 Senior UK Official, pers. comm., December 2000.

bananas, palm hearts, onions and flowers.[35] The HFZ however pressed farmers to replace opium poppy with a staple food crop; that was not only primarily grown for consumption but also had wildly different input requirements, particularly much lower labour intensity. This was to prove especially important with regard to the long-term effects of the HFZ and its impact on patterns of opium poppy cultivation, as will be explained later.

However, it was not just the HFZ's focus on crop substitution that was questionable. Conditionality had also fallen out of favour and been widely criticised by development donors such DFID,[36] GIZ and USAID, and by the Commission of Narcotics Drugs Global evaluation of Alternative Development,[37] as well as by non-government organizations in Afghanistan. An Afghanaid evaluation concluded: "It is important that contracts, whether with individuals, commanders or shuras, should set realistic terms of compliance. Eradication of opium cultivation is obviously the objective but if this is not a realistic short-term expectation then contracts must not require it. If unrealistic targets are set then they will inevitably not be achieved and the agency is placed in the position of either having to halt the programme or of having to ignore the requirements of its own contracts; with all the detrimental consequences this entails."[38] A series of UNODC reviews of its program in the 1990s had also challenged the efficacy of the approach.[39] As the international alternative development adviser to MRRD, an expert with over three decades of experience in rural Afghanistan, noted during a workshop on the issue in 2004: "The conditions in Afghanistan are not right for conditionality."[40]

Even at the time of the HFZ there was little to suggest that conditionality could work. This was particularly important given the limited nature of development coverage and its focus on wheat. For example, geospatial analysis indicates that there are 124,156 compounds within the 2013 boundaries of the HFZ.[41] The HFZ distributed around 50,000 packages of wheat seed and fertiliser each year that it was implemented. Only the landed were eligible for these inputs, not sharecroppers and tenant farmers who were most dependent on the opium crop. Moreover, because of the way that farmers were identified through the patronage networks of village elites, many recipients received inputs every year. The result was perhaps as many as 50 percent of those living in the Food Zone did not receive any inputs over the course of the HFZ.[42] This was only compounded by the poor security environment and the challenges of targeting both eradication and assistance through existing patron-client systems both of which mitigated against tying support directly to reductions in cultivation. The result was there were many farmers who did not receive seed and fertiliser but who were most dependent on opium and who were coerced to give up poppy or had their crop destroyed, while those that did receive assistance could also avoid eradication due to their links to government actors, particularly in the initial years of the HFZ.[43] Despite all that had been previously observed in Afghanistan and in other illicit drug crop producing countries, the HFZ proceeded.

35 East West Initiative, "Afghan Narcotrafficking," 15.

36 A number of papers were produced making this point at the Working group Session of the Alternative Livelihoods Technical Working Group, meeting on "Counternarcotics mainstreaming and conditionality, 22-23 June 2004. These include papers on the problems of conditionality from participants from the World Bank, GIZ, the UK's DFID and Foreign and Common wealth Office, and the adviser to the Ministry of Rural Reconstruction and Development of the Afghan government.

37 UNODC, "Alternative Development: A Global Thematic Evaluation" (Final Synthesis Report, Vienna: United Nations, 2005) http://www.unodc.org/pdf/Alternative_Development_Evaluation_Dec-05.pdf.

38 Afghanaid, "Opium Crop Substitution Programme, Achin District" (Nangarhar: Evaluation Report, 1989), 22-24.

39 East West Initiative, "Afghan Narcotrafficking," 42, FN 25.

40 Anthony Fitzherbert, "Conditionality: Some thoughts on conditions for conditionality" (Unpublished papers for the Working Group Session of the Alternative Livelihoods Technical Working Group, June 2004).

41 GIS analysis by Alcis Ltd, September 2017.

42 Ibid

43 Graham Zebedee, "Review of the Helmand Provincial Counter-Narcotics Plan, Second Report" (An unpublished report commissioned by the Counter-Narcotics Team, PRT, Helmand, March 2010), 7.

4. THE HFZ: ITS IMPLEMENTATION AND OUTCOMES

4.1. DRUG CONTROL IN THE MIDST OF BATTLE

In late 2008 Helmand was a battle zone. Levels of violence across central Helmand were high and both the ANDSF and international military forces had limited mobility due to Taliban presence.[44] It was not until the summer of 2009 with increased US forces on the ground that the ANDSF and NATO managed to push the insurgency out of Nawa Barakzai and Garmsir. It took Operation Moshtarak in February 2010 and the combined efforts of 15,000 US Marines, UK forces and the ANA to clear the districts of Nad e Ali and Marjah.[45]

By the fall of 2010 ISAF and the ANDSF had made significant progress in quelling the insurgency in central Helmand. The kind of pitched battles and violence that had been such regular occurrences in 2008 appeared to be a thing of the past. Taliban presence in the main canal area was restricted to a few outlying areas and their ability to collect taxes on land, opium and wheat was severely curtailed in the canal command area. Furthermore, the military operations had been supported by a dramatic increase in the level of development assistance. In fact between 2009 and 2011 an estimated US$259 million had been spent in Helmand.[46] This was the civilian surge that was integral to the counterinsurgency strategy in Helmand.

The HFZ was implemented amidst this backdrop of "clear, hold, build." To some in the HPRT, the delivery of wheat seed and fertiliser was integral to the provincial stabilisation effort.[47] Indeed, there were those in the HPRT even as late as March 2010 who argued that the HFZ was one of the only examples of the Afghan government delivering services to the rural population.[48]

While these inputs were being delivered it was done on the proviso that farmers abandon the crop that had been the economic mainstay of the province for each winter season of the last two decades, except for 2001 when the Taliban imposed a ban. The wheat seed and fertiliser was never intended to replace the income farmers earned from opium.[49] Instead, the advisers in the HPRT believed that providing wheat seed and fertiliser would improve the rural population's views of the Afghan government; which they believed was a critical component in strengthening the contract between the state and its people.[50]

However, in reality the distribution of wheat seed and fertiliser was a logistical nightmare and involved significant UK military assets for transport to the district centres and Forward Operating Bases for collection by farmers.[51] Some of the trucks and the distribution centres utilised were targeted by the Taliban.[52] Moreover, the fact that delivery was a UK military operation - as was Governor Mangal's travel to district shuras and the force protection for the eradication team - undermined claims that the HFZ was an Afghan-led program in the eyes of farmers.[53]

The distribution of agricultural inputs was also plagued by reports of corruption by district officials and

44 Theo Farrell, *Unwinnable: Britain's war in Afghanistan 2001-2014* (London: Penguin, 2017), 234, 247, 252, 262.

45 Special Inspector General for Afghanistan Reconstruction, "Quarterly Report to the United States Congress" (30 October 2014), 11.

46 Upper Quartile, "Counternarcotics and Alternative Livelihoods Assessment, Helmand" (An unpublished report for the Foreign and Commonwealth Office, June 2011), 15.

47 Zebedee, "Review of Helmand Counter-Narcotics Plan," 6.

48 Ibid.

49 Malkesian, *War Comes to Garmser,* 141.

50 Office of the Governor of Helmand, "Short Term Counternarcotic Strategy" (2009), 1.

51 Mansfield, *State Built on Sand*, 232, 260.

52 Farrell, *Unwinnable: Britain's war in Afghanistan,* 293-294.

53 Mansfield, *State Built on Sand*. 231.

tribal elders.[54] District officials and village leadership decided which households would be nominated to receive the limited assistance available. Those who were nominated would have their names placed on a list and then invited to the distribution centres to collect their wheat seed and fertiliser once it was delivered by the HPRT. Farmers reported that inputs were typically given to relatives or favoured persons within the village.[55]

Consequently, while the program reported delivering wheat seed and fertiliser to between 30,000 to 50,000 farmers each autumn from 2008 to 2011,[56] the wealthier members of the community would often receive inputs every year.[57] As such the program, like many others in Helmand, became an extension of existing patron - client networks, and fuelled resentment of those who were not recipients. Perhaps the most egregious examples of corruption were associated with the production of fictitious "ghost lists" of farmers.[58],[59],[60],[61] Reports of this kind of fraud typically involved local officials and accusations that wheat seed and fertiliser were collected by rural elites using the identity card of their villagers and then sold on the local market.[62],[63]

Farmers also complained that the wheat seed provided was of poor quality and in the initial years, delivered after the planting season for wheat had begun.[64],[65],[66] Senior officials within the provincial administration, including Governor Mangal's counter narcotics adviser, were even arrested and charged with corruption - accused of substituting inferior quality grain for improved seed.[67],[68] Combined with allegations of corruption in the distribution of other agricultural support from USAID, such as water pumps[69] and greenhouses,[70] these cases did little to improve the rural population's perception of the provincial and central government.

Allegations of bribes and favouritism were also made against the eradication campaign, particularly during the early years of the HFZ.[71] The locals' perception was an eradication effort that targeted the most accessible and vulnerable, whereas those with links to government officials or others in positions of

54 J. MacKenzie, "The Great poppy seed caper," *Global Post,* 22 June 2009.

55 David Mansfield, Alcis Ltd., and OSDR, "Managing concurrent and repeated risks: Explaining the reductions in opium production in Central Helmand between 2008 – 2011" (Kabul: Afghanistan Research and Evaluation Unit, 2011), 67.

56 During the first year the PRT reported that 33,000 households had received wheat seed and fertiliser, with a further 39,640 in 2009/10) and a final 48,200 in the fall of 2010. Cited in S. McPherson and C. Hannah, "Review of the Helmand Provincial Counter – Narcotics Strategy: Third Report" (Unpublished review for the Counter Narcotics Team, Provincial Reconstruction Team, Helmand, 2010), 43.

57 Although not the HFZ an audit by the Office of the Inspector General revealed the scale of irregularities in a review of AVIPA, where multiple fingerprints given by farmers acknowledge receipt of wheat seed and fertiliser appeared to be the same persons. They concluded "of the 4,563 distribution distribution entries tested, the audit team identified 2,582 cases (56.6 per cent) involving such irregularities". Office of the Inspector General, USAID, "Audit of USAID/Afghanistan's Afghanistan Vouchers for Increased Productive Agriculture Program" (Audit Report No. 5-306-10-008-P, 20 April 2010), 6.

58 F. Ledwidge, *Investment in Blood: The true cost of Britain's Afghan War*, (New Haven, CT, USA: Yale University Press, 2013).

59 Mansfield et al., "Managing concurrent risks."

60 J. Mackenzie, "Good Money After bad in Afghanistan?" *Global Post,* 18 January 2010.

61 Internal Memo, Department for International Development, 23 June 2010.

62 Internal Memo, Department for International Development, 23 June 2010.

63 Mansfield et al., "Managing concurrent risks," 67.

64 MacKenzie, "Great poppy seed caper."

65 Mansfield et al., "Managing concurrent risks," 67.

66 Internal Memo, Department for International Development, 23 June 2010.

67 Mackenzie, "Good Money After Bad."

68 Internal Memo, Department for International Development, 23 June 2010.

69 David Mansfield, "All Bets are Off: Prospects for {B}reaching agreements and drug control in Helmand and Nangarhar in the run up to transition" (Kabul: Afghan Research and Evaluation Unit, Case Studies Series, January 2013), 68-69.

70 Mansfield et al., "Managing concurrent risks," 63-65.

71 S. Gordon, *Winning Hearts and Minds? Examining the relationship between aid and security in Afghanistan's Helmand Province* (Medford, MA, USA: Feinstein International Center, Tufts University, 2011), 28.

influence - *wasatah* - were able to minimise the risk of eradication.[72] The sense of frustration that those most able to afford to lose their crop, as well as the belief that some of those involved in trading opium, were in fact running the eradication campaign, further fuelled antipathy to the provincial authorities and their foreign backers.[73]

However, as ISAF and the ANDSF gained ground in central Helmand, accusations of corruption with regard to the eradication became less commonplace.[74] By the spring of 2010 farmers even referred to attempts to bribe the eradication team only for their offer to be declined; it was claimed that the sheer numbers of soldiers and officials in the area made those charged with crop destruction fearful they would be discovered taking bribes.[75] And by the 2011 eradication season crop destruction appeared more systematic. Farmers reported that once a village was selected for eradication, the entire crop would be destroyed regardless of who owned the land and the socio-economic status of the household. Only those on the fringes of the village would retain their crop.[76]

Part of the explanation for this more uniform approach to crop destruction seemed to lie with the HPRT's direct engagement in the day-to-day targeting and monitoring of the eradication teams, which included attaching Global Positioning System (GPS) devices to each of the tractors used in the campaign.[77],[78] However, these lower incidences of corruption also reflected the improvements in security in the main canal area. In the early years of the HFZ the eradication teams were keen to pass through a village quickly and not return so as to minimise the risk of attack. However, this changed once ISAF and ANDSF had secured the area; not only was there less poppy planted each autumn but it was far easier to destroy the crop once GIRoA and its allies had extended their writ across the HFZ and pushed the insurgency into the former desert areas north of the Boghra canal.

4.2. THE HFZ: SUCCESS, BUT AT WHAT PRICE?

Between 2008 and 2011 opium poppy cultivation fell dramatically in Helmand, down from an estimated 103,590 hectares to 63,307 hectares according to UNODC (see Figure 25).[79] Although cultivation began to pick up again, rising to 75,176 hectares in 2012,[80] it was still twenty five percent lower than when the HFZ began in the fall of 2008. The fall in the amount of land dedicated to the crop was even more pronounced within the Food Zone itself. While estimates differ due to the year on year expansion of the area included, the USG estimates that cultivation fell within the Food Zone from 32,889 in 2008 to 7,914 in 2012.[81]

72 Mansfield et al., "Managing concurrent risks," 38-43.

73 For example, a lessons learned process conducted by the UK government analysing its efforts in Helmand concluded that: "In practice, early eradication-focused counter-narcotics work alienated Helmandis, destabilised the Helmandi political economy, threatened powerful vested interests at every level, reinforced the cycle of insecurity, and drove instability and hostility to the international presence and government". "Capturing the lesson learned from the Helmand Provincial Reconstruction Team" (Report WP 1322, 3 – 5 December 2014).

74 David Mansfield, "Briefing Paper 5: Central Helmand in the 2011/12 Growing Season – Spring Update" (Unpublished paper for UK Government, June 2012) http://www.davidmansfield.org/home/docs/field/52.pdf.

75 Mansfield et al., "Managing concurrent risks," 39-40.

76 Mansfield, "Briefing Paper 5," 3.

77 S. Cowper-Coles, *Cables from Kabul: The inside story of the West's Afghanistan campaign* (London: Harper Press, 2011), 86-87.

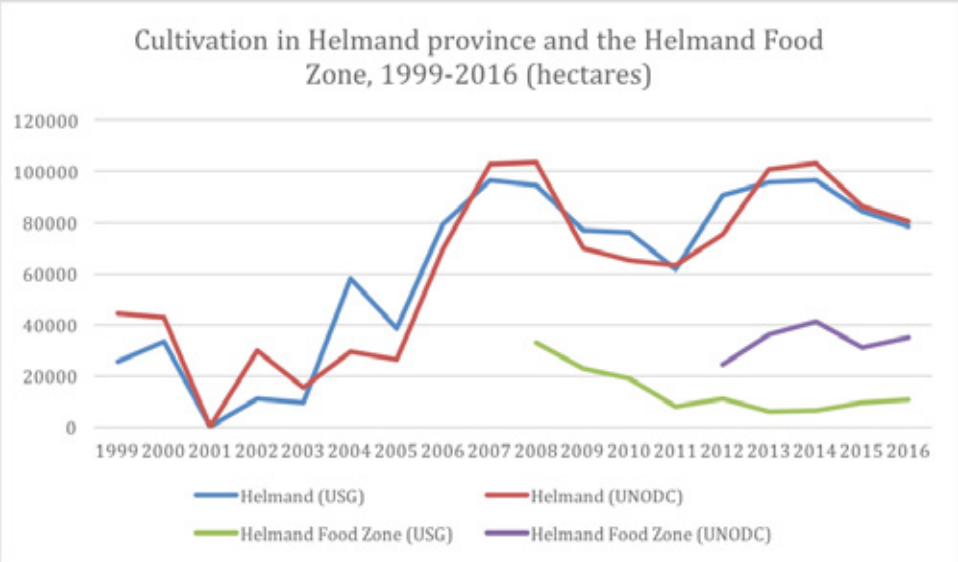
78 United States Government Accountability Office "Afghanistan Drug Control: Strategy Evolving and Progress Reported, but Interim Performance Targets and Evaluation of Justice Reform Efforts Needed" (GAO-10-291, March 2010), 11.

79 UNODC, "Afghanistan Opium Survey 2016: Cultivation and Production" (Kabul: UNODC, 2016) https://www.unodc.org/documents/crop-monitoring/Afghanistan/Afghanistan_opium_survey_2016_cultivation_production.pdf.

80 Ibid

81 This is based on the "common area" as defined by the boundaries of the Food Zone in 2009 and included in subsequent years. UNODC's estimate did not make a separate estimate for the Food Zone until 2012. It is thought that its subsequent estimates in later years are for the same area.

Figure 2: Cultivation in Helmand Province and the Helmand Food Zone, 1999-2016 (hectares)



Based on these figures, proponents argued that the HFZ was a success and that the combination of a "strong governor" and eradication had delivered dramatic reductions in cultivation.[82] Much of the success was attributed to Governor Mangal and his commitment to counter narcotics. This explanation proved infectious and by 2010 there were demands for the HFZ to be replicated in other provinces. Then Minister for Counter Narcotics, Zarar Ahmed Moqbel Osmani, proved an effective advocate persuading the influential US Senator Dianne Feinstein of the merits of the Food Zone approach and that more programs were needed in the other main poppy producing areas. Convinced by the scale of the reduction in opium poppy cultivation that had taken place in Helmand and the claims that the HFZ was the cause, Dianne Feinstein wrote to Hillary Clinton at the State Department to call for further Food Zone initiatives.[83] The resulting political pressure on USAID to find money to support a Food Zone program in Kandahar led to the launch of a US$25 million effort to reduce cultivation there. The Food Zone brand was launched.

However, behind the headlines, the inference that the HFZ was directly responsible for the reduction in cultivation, and that the model was replicable, was a far more complex explanation of why opium poppy cultivation had fallen in the HFZ and therefore why the same results were unlikely to be achieved elsewhere. Of even greater concern was the evidence that the results of the HFZ would not only prove short-lived, but that the program had facilitated a permanent shift in patterns of settlement and agricultural production that were likely to lead to unprecedented levels of cultivation in Helmand in the future.

In terms of attribution there were doubts that the reduction in cultivation within the canal command area could be directly linked to the HFZ. There were other exogenous factors that were more important in changing patterns of cultivation within the Food Zone. The first was the shift in the terms of trade between wheat and poppy between July 2007 and October 2008, and how this affected farmers' concerns over food security. Over this period opium prices fell from US$120/kg to US$70/kg while wheat prices increased from 15 Afs/kg to 35 Afs/kg between July 2007 and December 2008 due to the rise in global cereal prices and the restrictions the Government of Pakistan placed on the export of its own wheat

82 Thomas Harding, "Afghanistan hit by fall in opium crop production," *The Daily Telegraph*, 2 September 2009, http://www.telegraph.co.uk/news/uknews/defence/6122728/Afghanistan-Taliban-hit-by-fall-in-opium-crop-production.html.

83 Senator Dianne Feinstein, "Support Afghan Farmers, Cut Off Taliban's Drug Funding" (Letter to Secretary of State Hillary Clinton, 7 February 2012).

production.[84] While wheat prices remained relatively high for another 12 months before returning to 15 Afs/kg in October 2009, opium prices kept falling over the same period until they reached less than US$40/kg.[85] This kind of dramatic increase in the price of wheat has often led to farmers allocating more land to wheat and less land to poppy due to concerns over food security and their ability to purchase wheat in the local bazaar.

While proponents of the HFZ argued that opium poppy cultivation had contracted and wheat had expanded as a direct result of the provision of wheat seed and fertiliser and the threat of eradication, geospatial analysis suggested otherwise. Cranfield University estimated that while opium poppy cultivation decreased in the Food Zone by 37 percent between 2008 and 2009 and increased in the area outside the Food Zone by eight percent, both areas saw a doubling of the amount of land under wheat cultivation. This estimate strongly suggests that both those who were and were not directly affected by the HFZ made significant investments in wheat production. The increase in wheat production inside the Food Zone, stimulated by over-production of opium in 2008 and concerns over food security, took place at the expense of opium poppy cultivation due to the finite amount of land under the Helmand canal command area. While outside the Food Zone, in the former desert areas where no such barriers existed, the 98 percent increase in wheat cultivation occurred by bringing new land under cultivation.[86] Cranfield concluded, "the seed and fertiliser distribution program had little or no influence on increasing cereal cultivation compared to other factors causing the province wide increase."[87]

It is also hard to ignore the surge when considering the role that the HFZ played in reducing opium poppy cultivation - both the inflow of international military forces and the impact development money being spent in Helmand at the time.

In terms of troops Helmand was subject to a number of large scale military operations that coincided with the HFZ, most notably Panjai Palang, Khanjar and Moshtarak. The impact of the increase in troop numbers on the ground was most evident in Marjah between February 2010 and the spring of 2011. Marjah was one of the most prolific opium producing districts in Helmand, and therefore in Afghanistan. Prior to Operation Moshtarak, which ISAF launched in February 2010, farmers had planted the equivalent of 60 percent of the total cultivated land in Marjah with poppy. In 2011, with 15,000 US, UK and Afghan soldiers in Marjah, only 5 percent of the district's agricultural land was dedicated to the opium crop. This dramatic reduction in cultivation occurred even though there had been almost no eradication in Marjah in either 2009 or 2010, and despite the fact that the farmers in the district had not received wheat seed and fertiliser – two of the main prongs of the HFZ programme.[88]

At the time farmers in central Helmand argued that it was this state presence – as one British military officer described it, "a checkpoint on every junction in some areas"[89] – that influenced their decision on whether to cultivate in subsequent growing seasons.[90] In fact, in the absence of a more permanent state presence, one of the main tools of the HFZ – eradication – was perceived as a random act that could largely be managed by farmers through patronage and corruption. This perception led to increasing resentment; farmers described the government's eradication under these circumstances as acting like a "thief in the night." Contrary to some Western nations' claims that eradication extended the writ of the state in rural

84 Mansfield et al., "Managing concurrent risks, " 47.

85 Ibid.

86 Cranfield University, "Poppy and cereal cultivation in Helmand 2007 to 2009" (Unpublished report, 2009).

87 Cranfield University, "Poppy, cereal cultivation in Helmand."

88 The only other initiative launched to directly counter opium poppy cultivation over the same period was the poorly considered Marjah Accelerated Agricultural Transformation Program – which due to its late timing paid farmers to clear their diseased opium crops and did nothing to deter cultivation in the subsequent season. See David Mansfield, "Helmand Counter Narcotics Impact Study, May 2010" (Report for the Afghan Drugs Inter Departmental Unit of the UK Government, 10 May 2010), 9.

89 Mike Martin, (cited in Mansfield page 218) pers. comm..

90 Mansfield et al., "Managing concurrent risks," 38-43.

areas, many farmers argued that it was a sign of state weakness, particularly when undertaken with the support of foreign military forces such as the Poppy Eradication Force.[91],[92]

The civilian surge and the development monies that were flowing into Helmand made the HFZ look relatively minor. As early as 2007, US Ambassador William Wood talked of Helmand as the "fifth largest recipient of USAID funding in the world"[93] and by 2009, even more development assistance was being distributed in Helmand by both USAID and DFID through development programmes including Afghanistan Vouchers for Increased Production in Agriculture Plus (AVIPA Plus), Helmand Agriculture and Rural Development Programme (HARDP), the Afghan Stability Initiative (ASI) and the National Priority Programmes (NPPs) in health and education, as well as through increased amounts of money from the military in the form of the Commanders Emergency Response Program (CERP) and large-scale construction projects. Further increases were seen in 2010 and 2011. And by 2011, USAID estimated that it had spent US$489.9 million in Helmand, the vast majority of it since 2008.[94] While there are rightly questions regarding the value for money of this assistance and its sustainability, as well as broader questions about the extent to which aid delivers on stabilisation objectives, there is no doubt that the inflow of aid money led to an increases in available jobs, wage labour rates, and agricultural diversification in areas near the main cities of Lashkar Gah and Gereshk.

In the context of the military and civilian surge, and the dramatic shift in the terms of trade between wheat and opium poppy, it is hard to conclude that the reductions in opium poppy cultivation in the Food Zone were attributable to the HFZ. Even the government of the United Kingdom challenged the role that the HFZ had played in reducing opium poppy in Helmand. One review in 2010 suggested it had "a small but non-negligible positive impact on overall levels and patterns of poppy cultivation."[95] Others argued that its more important function was achieving stabilisation and good governance objectives in the province.[96],[97],[98],[99]

While it is difficult to directly attribute the reductions in cultivation within the Food Zone to the HFZ there is evidence to suggest that the ban on opium production over the course of both the HFZ and the surge played a major role in shifting cultivation into the former desert areas north of the Boghra canal. This was land where only a few farmers could be found a decade earlier, but by 2016 there were over 44,000 hectares cultivated and as many as 250,000 people. Many of these people were sharecroppers who had cultivated the crops of landowners in the Food Zone. In return for their labour these households received one third of the final opium crop, as well as some land to cultivate wheat, vegetables and other crops that they could consume. They also received a place to live and water for the crops, their families and any livestock they might have.

In the absence of opium poppy these farmers were no longer required to work the land. In contrast to opium poppy, wheat requires only limited labour inputs and could be managed by the landowner's family. With the HFZ and the other development interventions at the time only targeting the landed, increasing numbers of landless households not only found themselves dispossessed as the Food Zone was expanded and the ban on opium was effectively enforced, but also without alternatives. There was some growth in job opportunities in Lashkar Gah and Gereshk that accompanied the surge, but these required accommodation, an expensive endeavour for those without family already living in the cities. With few

91 M. Ryder and C. Read, "Review of the Helmand CN Plan" (Unpublished document for the Afghan Drugs Interdepartmental Unit, Annex H, August 2010).

92 Mansfield, "Helmand Counter Narcotics Impact Study," 1, 5, 7.

93 Wood, (Statement to the Policy Action Group, 1 August 2007), 5–6.

94 United States Agency for International Development, Afghanistan, "Fact Sheet, Helmand Province" (June 2011), 1.

95 Zebedee, "Review of Helmand Counter-Narcotics Plan," 2.

96 Ryder and Read, "Review of Helmand CN Plan."

97 Mansfield, "Helmand Counter Narcotics Impact Study," 1, 5, 7.

98 Zebedee, "Review of Helmand Counter-Narcotics Plan," 5-6.

99 McPherson and Hannah, "Review of Helmand Counter-Narcotics Strategy," 30.

other choices, increasing numbers of the land poor moved to the former desert areas north of the Boghra canal, drawing on family and tribal links to find land to lease sharecrop and even buy. Angry that they had been forced out of the canal command area by a government that they saw as predatory and corrupt, putting the interests of foreign powers above their own, they settled new land, cultivating much of it with poppy.

By 2012 the increase in opium poppy in the former desert areas north of the Boghra canal exceeded the reductions that had been achieved in the Helmand Food Zone and levels of cultivation in Helmand Province began to rise again. By 2013 levels of opium poppy cultivation for the province had returned to their pre-HFZ levels. HFZ advocates consoled themselves and others with the fact that while total cultivation remained the same the crop was now concentrated in the areas outside the HFZ and GIRoA's writ and that within the Food Zone itself cultivation remained much lower than in 2008, even if it was rising. This redistribution of opium poppy within Helmand sometimes led to renewed calls for aggressive eradication that would reach beyond the HFZ and punish those seen as the opportunists living in the deserts under what was viewed as Taliban protection. What this argument failed to consider was just how fragile the achievements in the Food Zone were and how a resurgence in cultivation would be likely if the government lost its footing in the area – a prospect that was made all the more likely in the absence of a viable alternative to opium poppy and the withdrawal of international military forces.

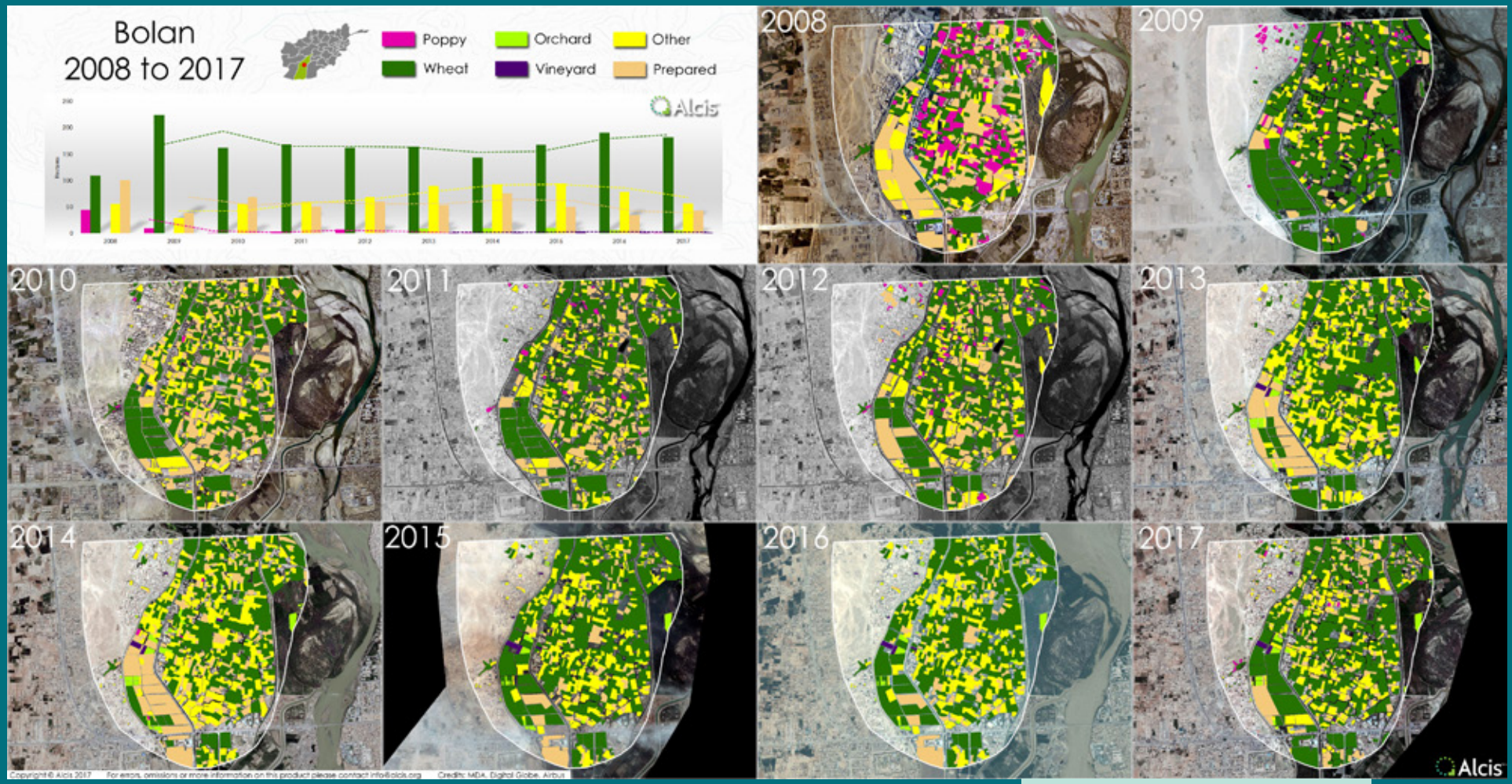


Figure3: Crop mapping, Bolan, Helmand, 2008-2017

5. THE HFZ IN 2017

5.1. INSIDE THE FOOD ZONE IN CENTRAL HELMAND

By the spring of 2017 poppy could be found across the Food Zone, even in areas adjacent to the provincial capital of Lashkar Gah. In fact, small amounts of opium poppy could even be found in areas such as Qala Bost near the airport to the south of the city as well as Bolan, just over the bridge to the west of Lashkar Gah (see Figure 3). These were areas where farmers had prospered during the HFZ and the surge, where a rich variety of crops had been cultivated to feed the urban population, and where households were near enough to the city to exploit the growing demand for wage labour. It was rare to find households in these areas that did not grow a rich variety of crops and that did not have at least one family member with a job in the city.

The most significant change that impacted on these areas was the collapse of the ANDSF and encroachment of the insurgency. In fact, the Taliban's presence was felt across the area, illustrated by their collection of taxes on land, opium and wheat in all but Qala Bost. The loss of government influence and territory was such that farmers even paid tribute to the insurgency in the area of Bolan in 2017 – although not for long.

The government had lost ground in Bolan in early spring 2017, and the main concern to the local population was the ensuing battle between government forces and the insurgency; the uncertainty it created and the damage it inflicted on life and property. In Bolan, farmers complained that their greenhouses had been "burned" in the fighting.[100] Some had removed their greenhouses altogether in an attempt to prevent them being destroyed. These reports were verified using remote sensing imagery (see Figure 4). There were also reports of poultry farms being closed and herds of cattle being moved to Lashkar Gah so as to avoid further losses. Farmers reported that following the routing of the insurgency by the ANDSF, the Taliban placed improvised explosive devices along the main road and outside houses.

Despite this experience and the immediate loss of income it caused, life in Bolan, as well as Qala Bost, continued much as it had done in previous years. The government's loss of control in Bolan was only temporary and there was still considerable support for the provincial authorities and the central government. And although there was evidence of a smattering of opium poppy it largely consisted of a few isolated farmers cultivating the crop on a small proportion of their overall land. On the whole farmers in these areas persisted with a wide array of different vegetable and fruit crops grown for the market in Lashkar Gah, as well as salaried employment, daily wages and trading in the city.

However, it was not necessary to travel too far to see dramatic evidence of the faltering HFZ and its unsustainable impact. For example, large amounts of opium poppy could be found in the districts of Nad e Ali and Marjah in the spring of 2017. Most farmers in these districts cultivated opium in 2017, many dedicating as much as 40 percent of their land to the crop and some no distance from Lashkar Gah (see Figures 5 and 6).

Furthermore, there was little affection for the government in these areas. These were areas where opium poppy had largely been replaced by low-risk, low-return crops such as wheat and cotton, with only limited increases in the amount of high value horticultural crops grown. To make matters worse, there were repeated allegations that the "government had abandoned their checkpoints and weapons to the Taliban" in the fall of 2016 in areas such as Koshal Kalay, Shin Kalay, Loy Bagh, Louy Bagh and Marjah 2A. There were also accusations that they had received payments to leave their equipment and munitions behind.[101] These accusations gained considerable resonance amongst a population where there was deep antipathy for a government that was closely associated with the prohibition of opium, corruption in the

100 Bolan #10. Bolan #15.

101 Marjah 2A 11. Loy Bagh #1. Loy Bagh # 3. Loy Bagh #5. Loy Bagh #8. Loy Bagh 14. Louy bagh #6. Louy Bagh #12.

Figure 4: Reduction in the number of greenhouses in Bolan, Helmand, 2016-2017

delivery of aid and deterioration in the welfare of the rural population.

The government's attempt to retake the territory in April and May 2017 only made matters worse. Coinciding with the opium harvest, these operations prevented farmers from harvesting a crop in which farmers had already invested considerable time and resources. For example, a farmer in Marjah 2A reported losing Pakistani Rs 100,000 as a direct result of being unable to irrigate his crop due to the fighting.[102] To offset this loss he had little choice but to sell all his livestock. For farmers this was a policy of "scorched earth."

The timing of this latest military intervention by the ANDSF, its impact on livelihoods, and the injuries[103] and fatalities[104] that ensued, further fed the narrative of a government that understood little of the needs and priorities of the rural population. It gave succour to the Taliban, particularly in light of the government's previous prohibition of opium and the widely held view that were the ANDSF to gain ground again a ban on opium poppy would soon follow. While the Taliban were not viewed favourably, they were not seen as weak like the Afghan government: they had not failed to secure the area; they were not perceived as guilty of the kind of widespread and endemic corruption that the government was involved in; and they had not banned opium at the behest of their foreign patrons. As one farmer in Marjah F4D5 (#6) said: "the Taliban is better than the government; they don't ban poppy they just ask for tax of 2 khord[105] from the poppy, not anything else."

102 Marjah 2A #6

103 Shin Kalay #8. Koshal Klay #10. Loy Bagh #5

104 Marjah 2A #2. Marjah 2A #6. Marjah 2A #7. Marjah 2A #14. Marjah F4D5 #4. Marjah F4D5 #11. Shin Kalay #10. Loy Bagh #4. Bolan #10.

105 One khord is a measure used in southern Afghanistan and is the equivalent of 112.5 grams.

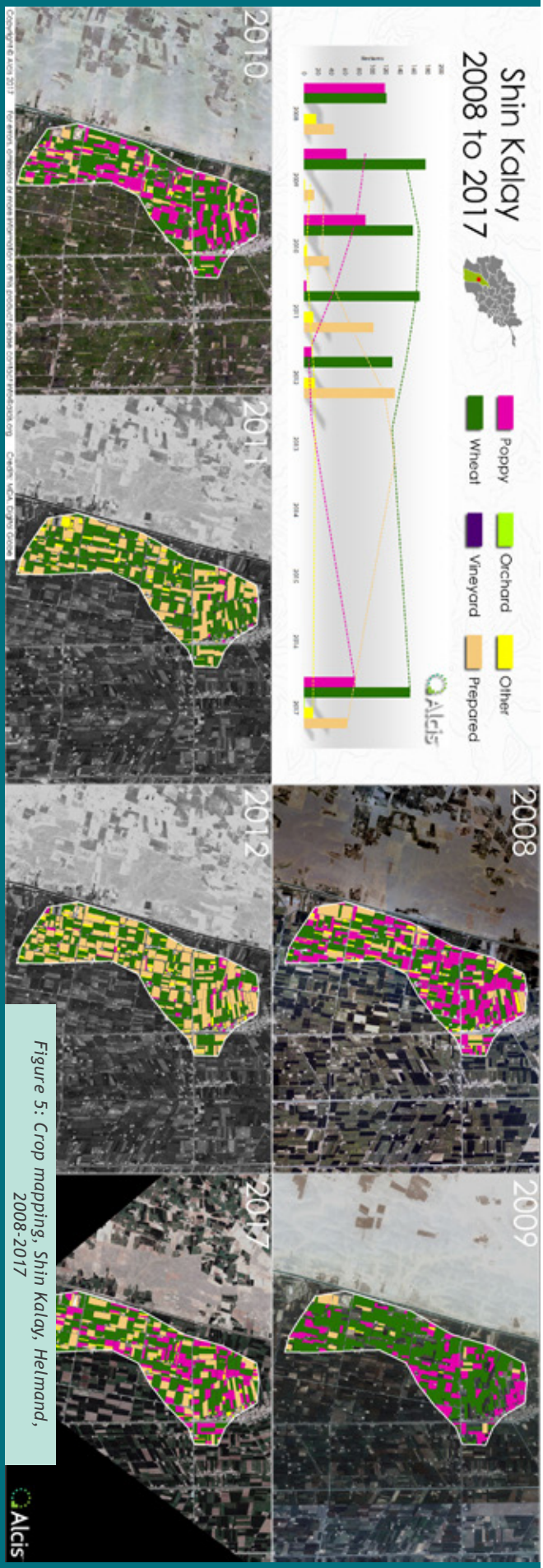


Figure 5: Crop mapping, Shin Kalay, Helmand, 2008-2017

Moreover, the destruction from the fighting in Nad e Ali and Marjah was significant. In Shin Kalay, Koshal Kalay Loy Bagh, Louy Bagh and in Nad e Ali opium fields could be found abandoned and the crop was left unharvested (Figure 7). In Marjah 2A, an area not distant from the district centre, there were signs of a large number of fields – almost 40 percent of the area - that had not been planted at all (see Figure 8). There might be those that see the imagery and think the abandoned fields were a consequence of damage to the irrigation canal. Instead it was the fighting along the main road that prevented the area from being planted in the fall of 2016. With the government holding the road, surrounded by the Taliban on both sides, the rural population fled the area in a desperate attempt to avoid being caught in the crossfire. Were the population to have been able to stay in the area and plant their fields it is likely that they would have planted more than 30 percent of the land with opium poppy, perhaps cultivated as much as half of the land with poppy, as was found further north in Marjah F4D5 (see Figures 9 and 10). As one farmer exclaimed, "if the government will leave this area, the people will be safe. Otherwise there will always be fighting."[106]

Where the opium crop was not destroyed or abandoned in the fighting the yield was poor, adding to the economic downturn in these areas. Reports of yields of "one to three charak"[107] were common, the equivalent of 5.6 kg to 16.8 kg per hectare. Most farmers recognised the particularly cold snap that hit the area at the beginning of April 2017 and blamed it for the low yields, however a minority attributed the failed crop to the spraying of herbicides by the USG.

106 Marjah 2A #6.

107 One charak is a measure used in southern Afghanistan and is the equivalent of 1.125 kg.

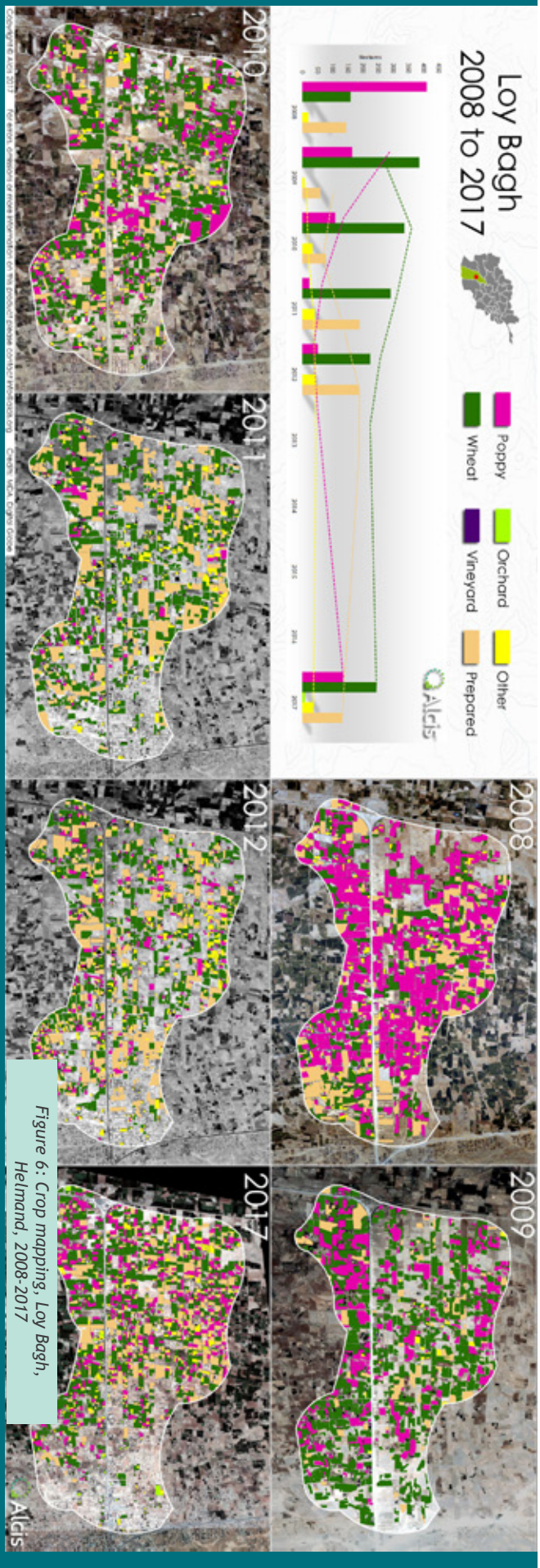


Figure 6: Crop mapping, Loy Bagh, Helmand, 2008-2017

The combined impact of the conflict and low yields was a rapid deterioration in the welfare of many households within the Food Zone. Farmers sold assets such as livestock, including dairy cows,[108] impacting on the dietary intake of the family members and damaging their long-term economic livelihoods. Those without access to non-farm income opportunities, including trading, curtailed their expenditure on food, cutting out meat and fruit and limiting their diet to *shomrey*. In some cases the sick went uncared for due to a lack of funds to pay for their treatment. The result is a growing anger directed towards the government across much of Nad e Ali and Marjah. The only hope that many farmers have in the wake of this year's events is the prospect of improved security in the fall and the hope that they will be able to grow more opium poppy next season.

108 Marjah F4D5 #1. Marjah 2A #3. Marjah F4D5 #4. Marjah F4D5 #11. Marjah F4D5 #13. Shin Klay #6. Louy bagh #3. Louy Bagh #5. Louy Bagh #8. Louy Bagh #15. Bolan #10:

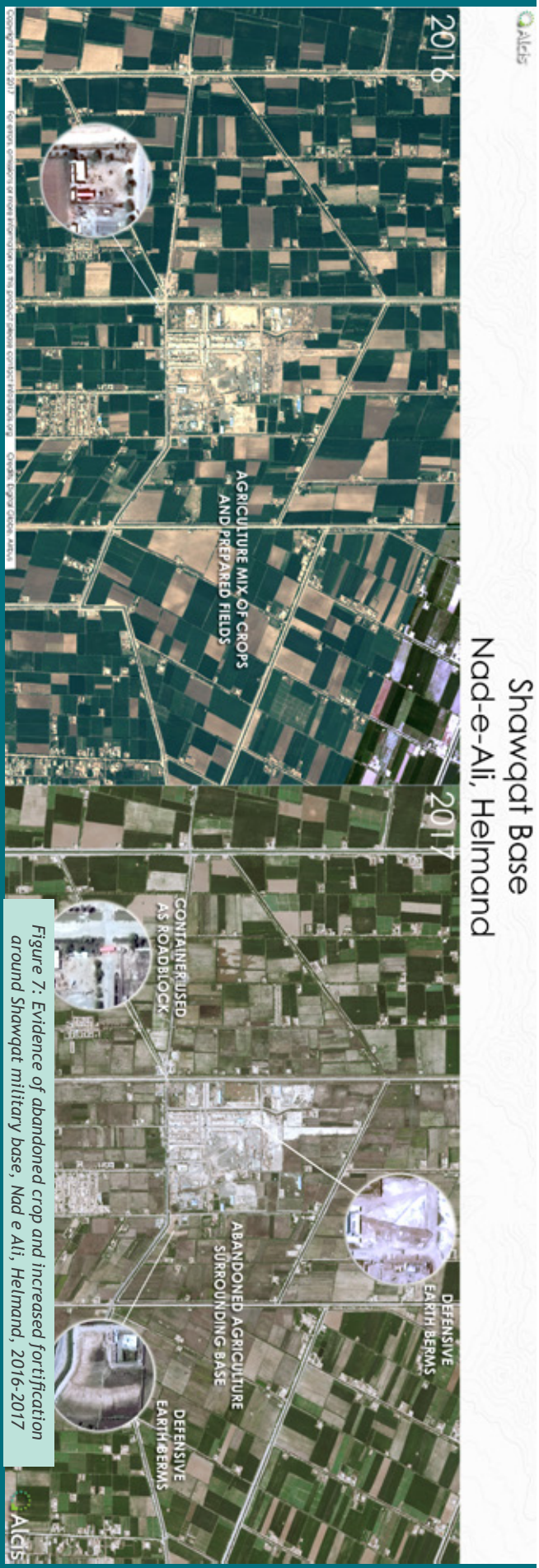


Figure 7: Evidence of abandoned crop and increased fortification around Shawqat military base, Nad e Ali, Helmand, 2016-2017

5.2. OUTSIDE THE FOOD ZONE IN THE FORMER DESERT LANDS NORTH OF THE CANAL

As the previous section discussed, the settlement of the former desert lands north of the Boghra canal increased as opium poppy was suppressed within the Food Zone in central Helmand. In 2008 there was only 13,164 hectares of agricultural land north of the Boghra canal and south of Highway 1, up from less than 400 hectares in 2003. By 2012, there were 30,389 hectares of cultivated land in this same area, the vast majority of it opium, rising to 40,845 hectares in 2014. By 2016, there was as much as 44,487 hectares of agricultural land and almost 250,000 people in an area that had been all but uninhabited when the Taliban regime collapsed (see Figure 11).

While there has been an exodus of farmers from the Food Zone to this and other former desert areas, their quality of life has suffered over the last few years. Opium yields were poor between 2012 and 2015, sometimes reaching as low as 12.5 kg per hectare, or less. The crop was so bad that between 2013 and 2015 there were even signs of land being abandoned and some farmers leaving the area (see Figure 12). Evidence suggests that most of those that left were sharecropping and tenant households, hopeful that they might be able to return to the canal command area and find a landowner that might agree to them growing poppy once more. However, many of the land poor stayed on conscious of the fact that they would find it difficult to obtain land, especially with low levels of poppy cultivation persisting in the Food Zone.

The farmers most likely to remain in the former desert area were those who had purchased land, built a house and acquired assets during the years when the opium harvest was good. These farmers preferred to wait it out hoping that yields would once again improve. In the face of low yields – in some years earning little more than the cost of production – their main recourse was to reduce their consumption of meat and vegetables and healthcare spending, and sell any assets they had at their disposal. Those who had a surplus of land, low labour costs and had not experienced death, injury or the punitive costs of marriage in recent years, would have residual opium, which they could sell. Those who had depleted any inventory of opium they once had, sold their vehicle, motorbike, or other items of value in order to meet their basic needs.

Wary of incurring further losses from their opium crop, farmers in the former desert areas cut back on the amount of land they dedicated to the crop. And in contrast to

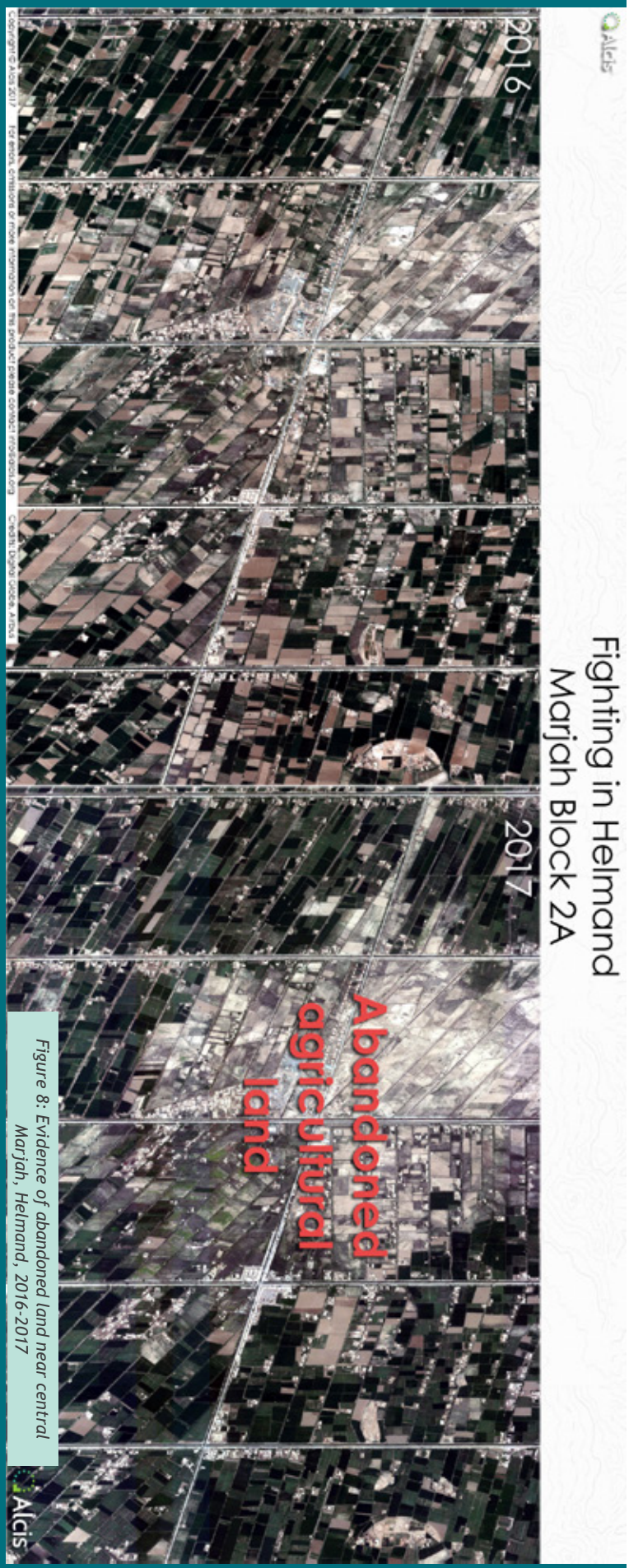


Figure 8: Evidence of abandoned land near central Marjah, Helmand, 2016-2017

2012 and 2013 where the crop was almost monocropped, farmers allocated more land to wheat or left it fallow. By 2016 there was more wheat than poppy grown in the land north of the Boghra canal for the first time since 2010 (see Figure 13).

For those who chose to stay and could afford the investment costs, the purchase of a solar powered deep well became a logical response to falling opium poppy yields. While start-up costs are high at around US$5,000[109] there are none of the recurrent costs associated with a diesel powered well, including the expense of maintenance and replacement of generators and pumps. As such, solar power has offered a life-line to these farmers, allowing them to increase their net returns even in the face of dwindling yields. The result has been a proliferation of solar powered deep wells. For example in the research site of Shna Jama the number of deep wells increased from 49 in 2015 to 164 in 2016, and there was an increase in the former deserts of the south west of 80 per cent in the last year alone, increasing from 14,266 solar powered tubewells in 2016 to 25,636 in 2017 (see Figures 14 and 15).

There have been other innovations aimed at improving the returns on the opium crop in these former desert lands. For example, in 2017, there was evidence of experimentation with pesticides. These products can be found in the market with claims that they offer protection against a variety of insects and diseases that opium poppy is subject to. Many of these products have pictures of opium poppy on the labels; some even refer to the specific diseases and insects they can be used to counter. Some of these labels are in English. The majority of these products are sold by Sahrai Trading Company, in Kandahar (see Figures 16 and 17).

109 These include 30 solar panels at Pakistani Rs 11,000 each, and Rs 20,000 to Rs 30,000 for the frames to house them. It also requires a special pump from Rs 18,000 to Rs 30,000 each. a transformer or 'switch' costing Rs 20,000 to Rs 30,000 and finally installation will cost between Rs 4,000 and Rs 6,000. Further startup costs include the rent of the barma to drill the well at Rs 500 per meter and tractor costs for establishing the water reservoir at 160 Afs per hour for 8 hrs.

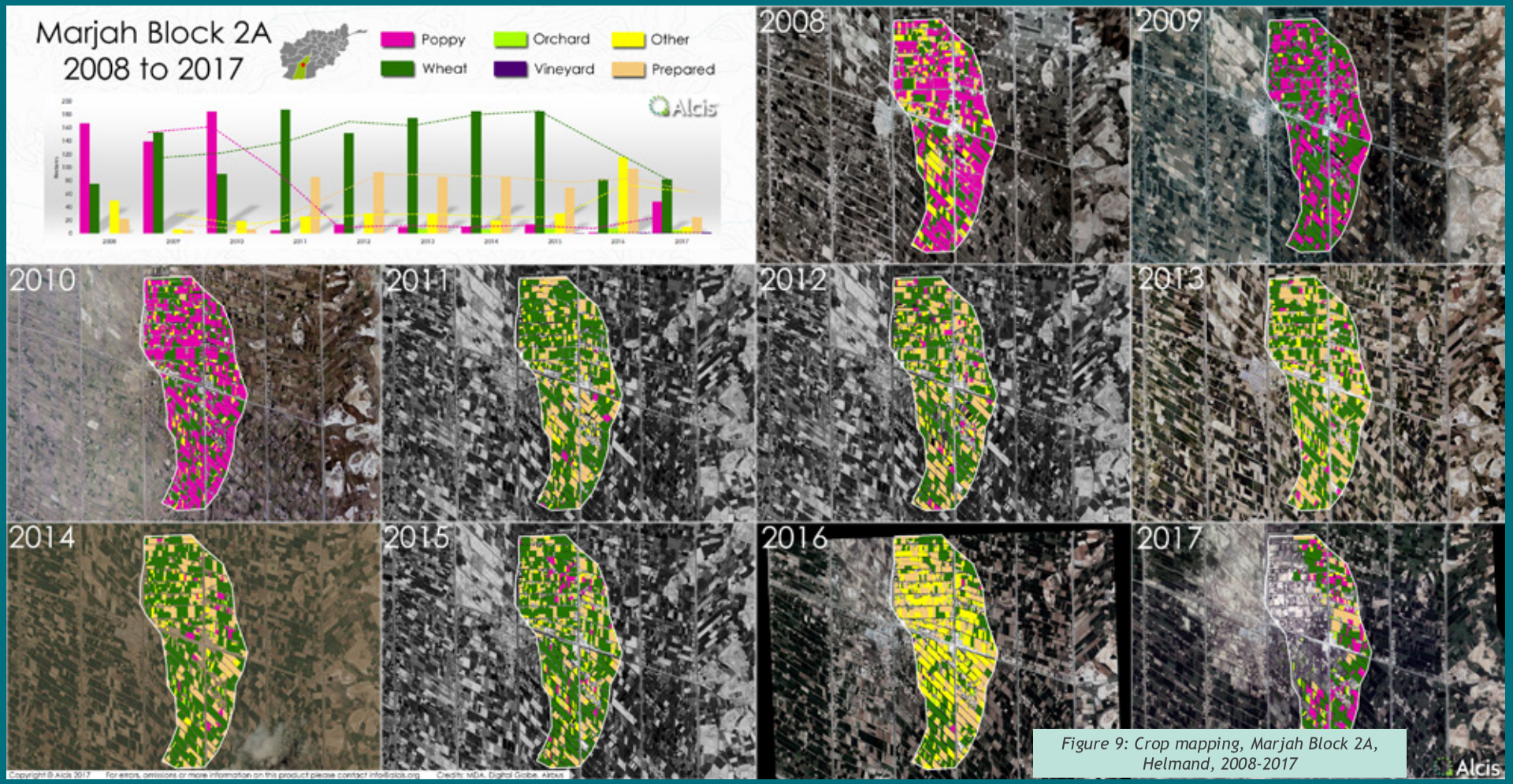


Figure 9: Crop mapping, Marjah Block 2A, Helmand, 2008-2017

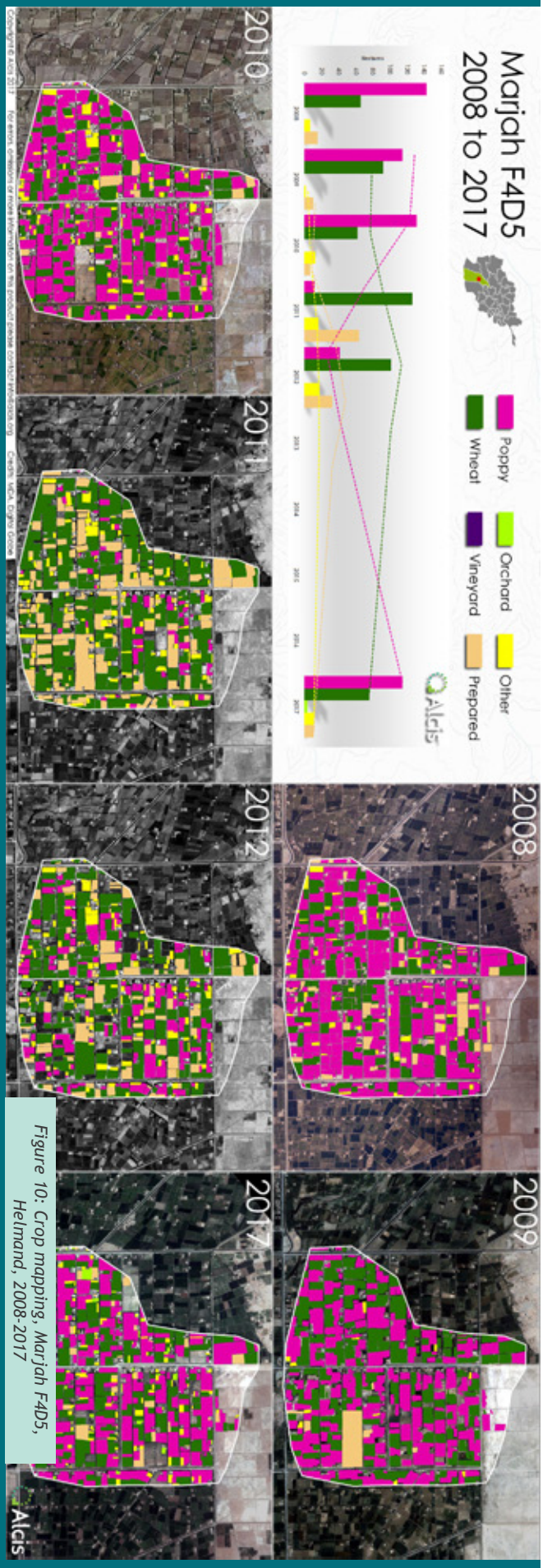


Figure 10: Crop mapping, Marjah F4D5, Helmand, 2008-2017

This more recent development with pesticides reflects a growing trend in the market for agro-chemicals in Helmand, with a proliferation of products and new labelling that appeals to the local market. Chinese and Iranian made herbicides such as Topik[110] remain popular for those growing poppy, but there is a proliferation of locally labelled products such as 'Zanmargai" (suicide bomber) and "Cruise" (as in Cruise Missile). It is not known if the pesticides labelled for use on poppy are actually effective or are for other crops and marketed so as to appeal to those farmers who have experienced low opium yields in recent years. Farmers themselves have little positive to say about the pesticides and there is little to suggest that they are effective. According to those selling pesticides in Lashkar Gah, most will "spray anything if the product says it will make the capsule big".

There are also reports of a new variety of seed in Helmand, known locally as "China." This variety is reported to mature in only two to three months and can be bought as seed in three different qualities: "Pand barg" – thick leaf, "Gul Ahmadi" – thought to be a trader in Torkham and "Spin Guli" – white flower. These sell for 8,000, Afs per man,[111] 10,000 Afs per man and 12, 000 Afs per man respectively. Despite claims in the press it is unknown whether these seeds do actually come from China; locally farmers have their doubts.[112] The suggestion, as some analysts have argued,[113],[114] that they

110 Topik is locally known as "Gandam Kush' - "wheat killer" because it kills unwanted wheat around opium poppy.

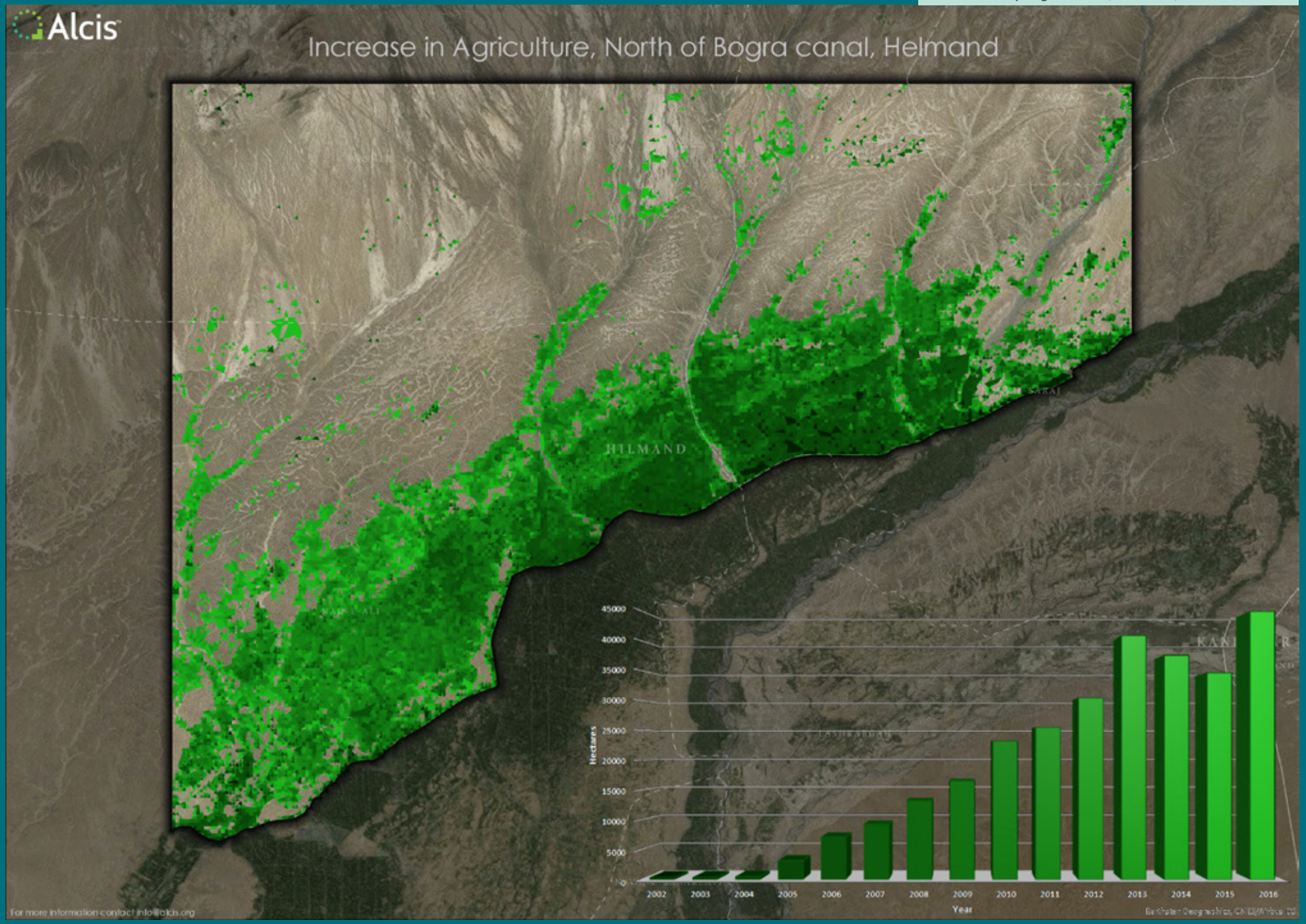
111 A man is a unit of weight in Afghanistan. In Helmand it is the equivalent of 4.5 kg. There are 4 charak in man and 40 khord, making a charak 1.125 kg and a khord 112.5 grams.

112 There have long been claims of seeds being imported from abroad. This includes reports of seeds from America, Italy, Burma and India. Research in the late 1990s found that farmers would name varieties after the perceived origin with no evidence that the variety actually came from there. It was also viewed as a marketing ploy - making the seeds seem 'exotic' and 'special' - by those selling the seed. Over the last decade or more I have heard similar reports of imported seed in the field, in the media and from the intelligence community. Often the attributes of particular varieties of opium don't match up with the crop grown in that country. For example, reports of a Burmese variety were accompanied by claims that it offers better yields than Afghan varieties, but that it required more water and fertiliser - the exact opposite as the crop grown in Burma. For some of the earlier stories of imported seeds see UNODC, "Annual Opium Poppy Survey" (Annex E, 1999), 32-49.

113 "Taliban set to double opium profits this year," *CBS*, 5 May 2015, https://www.cbsnews.com/news/afghanistan-taliban-double-opium-income-new-strain-high-yield-poppy-seed/.

114 Mariam Amini, (2017) "Afghanistan's relentless opium woes have a 'new seed in town, and it comes from China" *CNBC*, 25 March 2017, https://www.cnbc.com/2017/03/24/afghanistans-relentless-opium-woes-have-a-new-seed-in-town-and-it-comes-from-china.html.

Figure 11: Annual increase in land under agriculture north of Boghra canal, Helmand, 2002-2016



are Genetically Modified Organisms (GMO) seems out of place[115] given that licit opium producing countries like Australia and France have not yet achieved this level of sophistication. It is very likely that the "China" variety is a further example of opportunist marketing, much like that of the production of pesticides – or perhaps just pesticide labels – at a time when the opium crop has been plagued by low yields.

These kinds of innovations have offered some resilience in the face of falling yields and supported landed-farmers to remain in the former desert area. In 2016, there was respite for those that stayed with yields making some recovery from their four-year low. With yields of between 22.5 kg and 33.75 kg per hectare in 2016, as opposed to less than 12.5 kg per hectare in 2015, and market prices of between US$165 and $200 per kg there was a chance for farmers to improve their quality of life, especially for those with lower input costs due to solar technology.

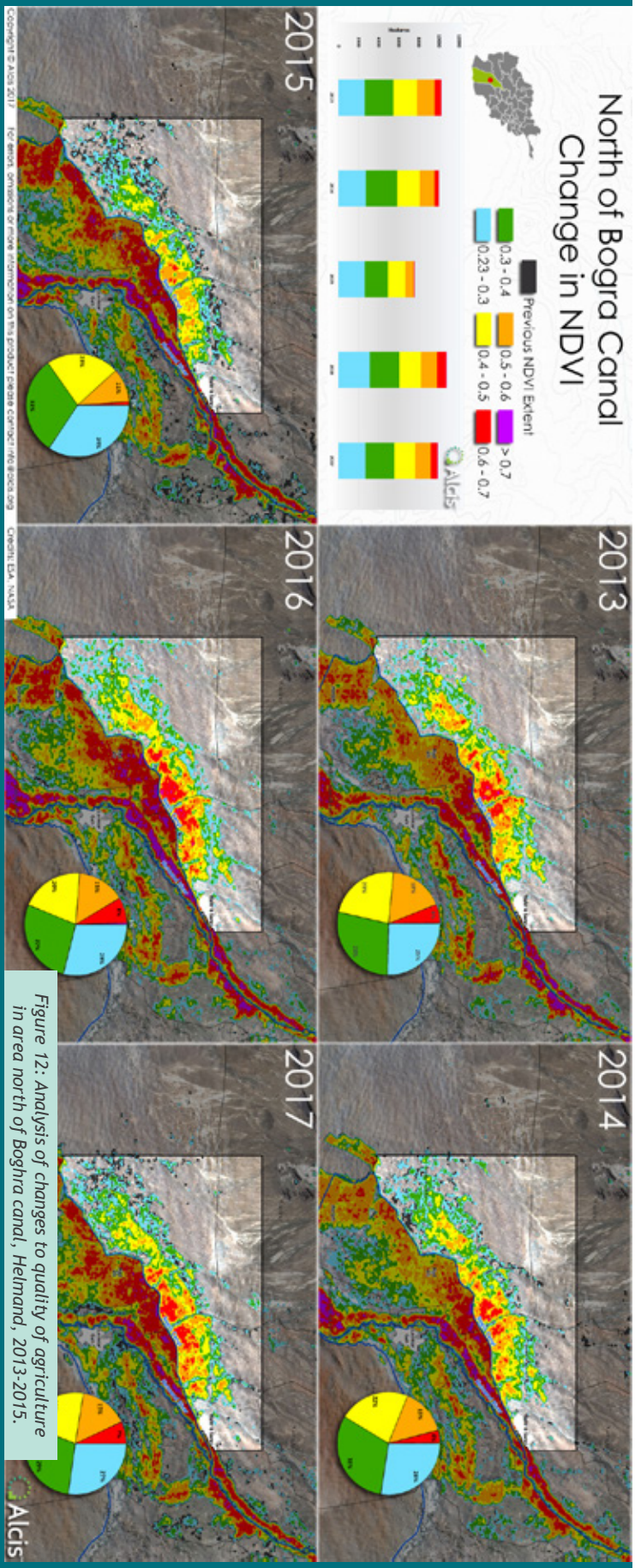


Figure 12: Analysis of changes to quality of agriculture in area north of Boghra canal, Helmand, 2013-2015.

115 It is unclear how those interviewed, as well as the journalists and analysts consulted reached the conclusion that the seeds were genetically modified. There is some indication from the coverage that the conclusion that the seed was genetically modified is due to reports of a shorter maturation period. However, some of the benefits of these allegedly 'genetically modified' is that they can be grown during the strong and summer. The fact that the crop has a shorter maturation period is not necessarily a function of genetic modification. this is a common response to warmer temperatures and water stress and is evident in the shorter crop, small capsule size, and yields of the spring crop in Helmand, as well as in Badakhshan and Ghor where spring/summer crops are grown. The spring planted crop in Badakhshan and summer planted crop in Ghor – which have been grown for more than a decade - have shorter growing seasons, also have a shorter growing cycle because they do not have a dormant stage during the depths of winter, in contrast to the opium planted in the fall.

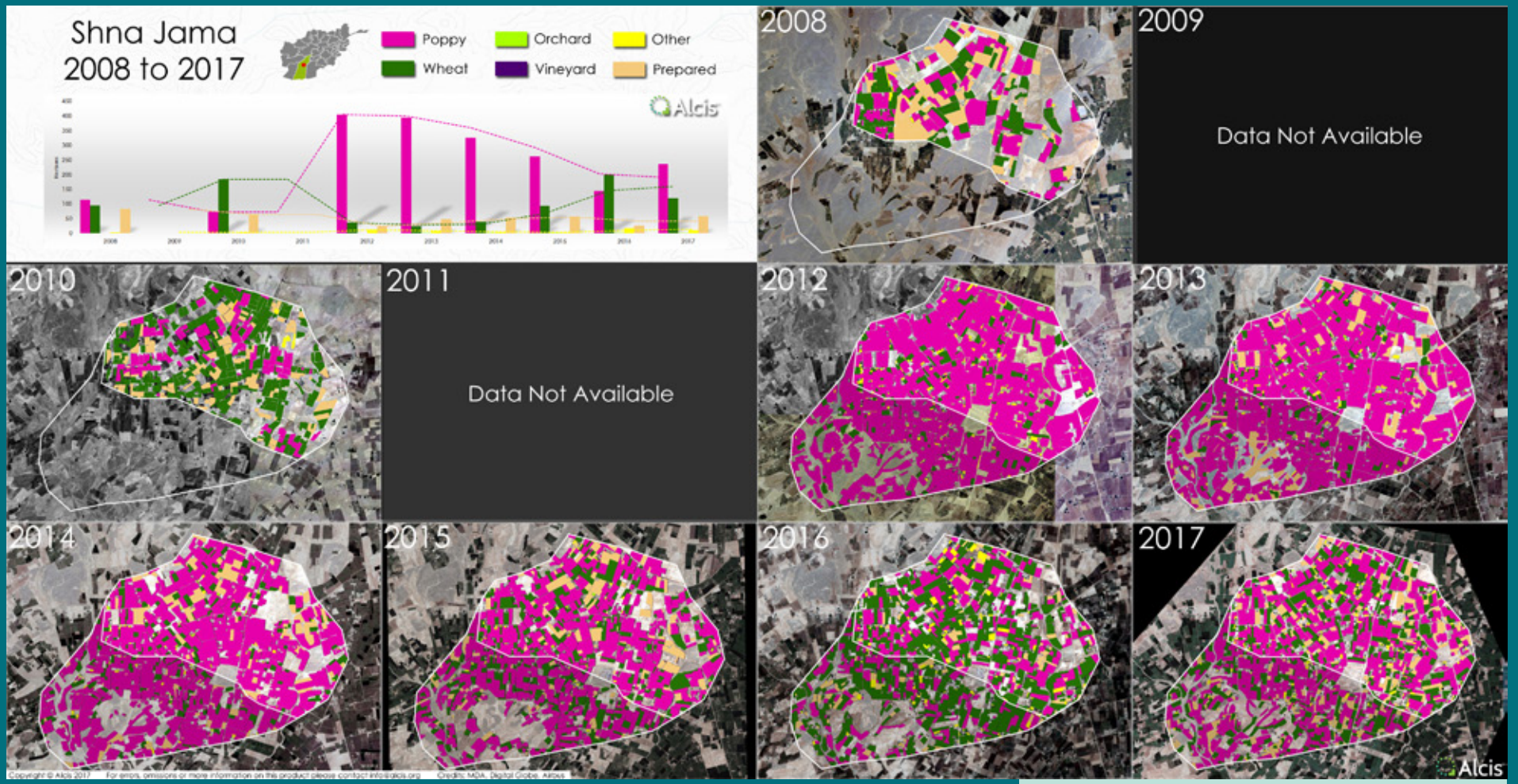


Figure 11: Annual increase in land under agriculture north of Boghra canal, Helmand, 2002-2016

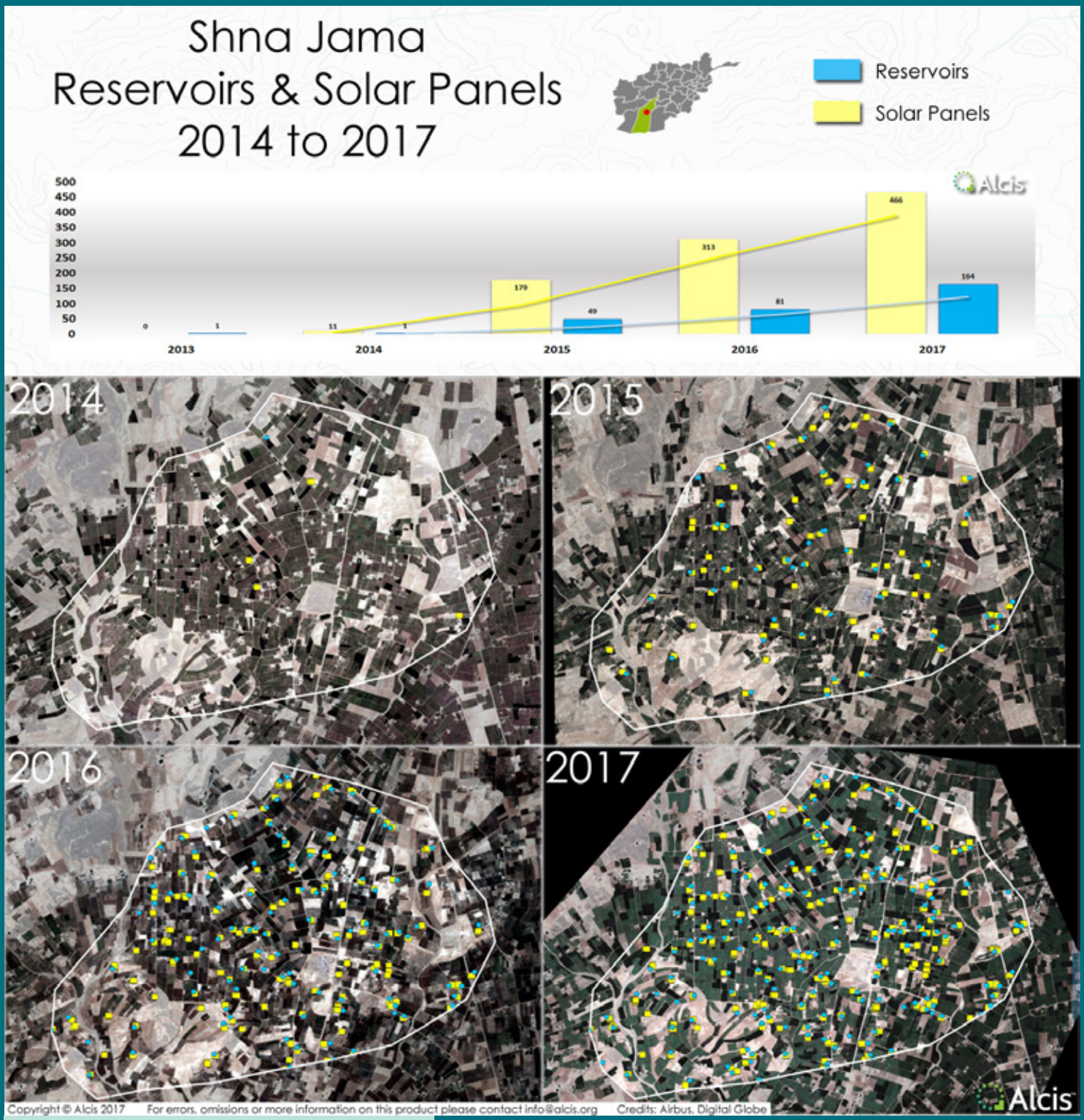


Figure 14: Number of reservoirs and solar panels in Shna Jama, Helmand, 2014-2017

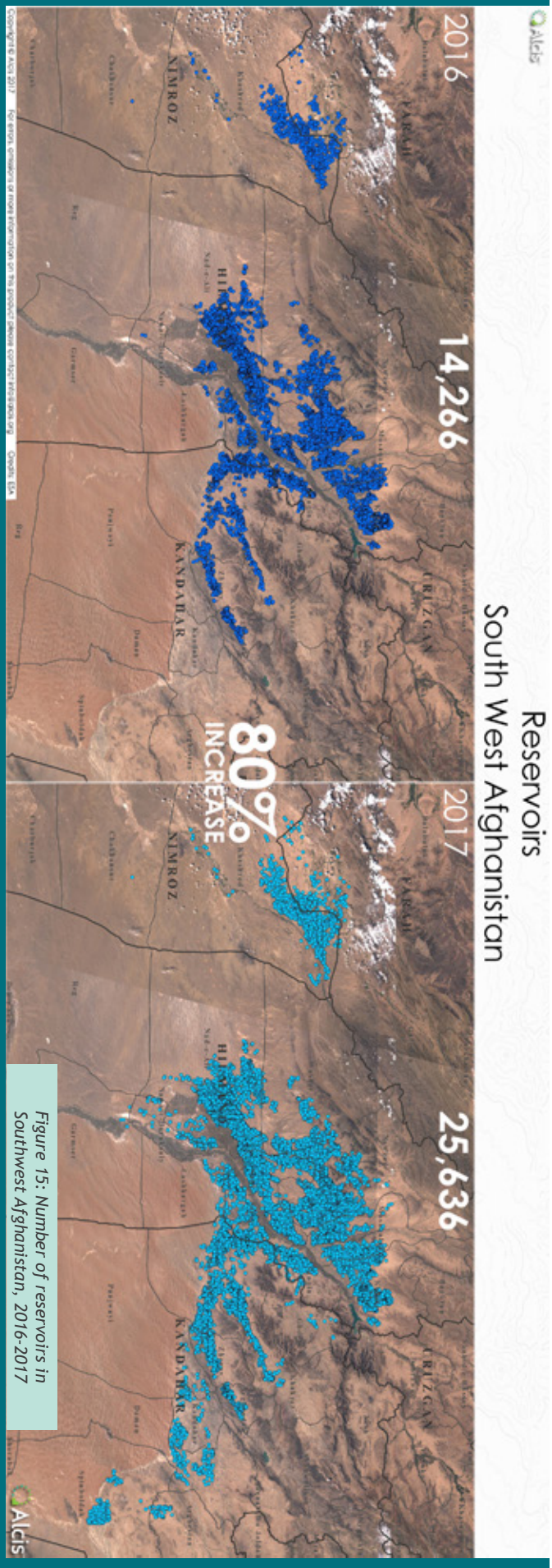


Figure 15: Number of reservoirs in Southwest Afghanistan, 2016-2017

The result of these improved yields last year is a significant increase in levels of opium poppy cultivation in 2017, with levels of cultivation often ranging from 50 to 80 percent of the household land of those interviewed. Crop mapping of Shna Jama supports these estimates, indicating that 55 percent of the total land was cultivated with opium poppy compared to only 37 percent in 2016.

In fact, in the former desert area to the north of the Boghra things have been looking up. Yields had almost fully recovered from the lows experienced between 2012 and 2015. And while a few farmers repeat the previous oft cited complaint of their crops having been "sprayed,"[116] and yields of only "one or two charak per jerib," the equivalent of only 5.5 kg or 11 kg per hectare, these are very much in the minority. It was far more frequent to hear farmers north of the Boghra report "good yields" of between 45 kg per hectare and 67.5 kg per hectare and a much-improved standard of living.

Indeed, at the time of harvest prices also remained relatively high at around US$125 per kg providing stimuli to the local economy. For the first time in years, farmers north of the Boghra reported purchasing livestock, particularly dairy cows,[117] motorbikes,[118] generators[119] and solar panels after the harvest of 2017. Some highlighted their renewed wealth and generosity by slaughtering a sheep to celebrate the good harvest and to thank the labourers.[120] The sick were being sent to Pakistan[121] and even India[122] for medical treatment. Sons were being sent to private schools in Lashkar Gah,[123] or married despite the high cost of the bride price, known as walwar, and the ceremony itself.[124] Finally there were even reports of farmers purchasing land – albeit former desert land which is markedly cheaper than the canal command area at around Pakistani Rs 80,000 to Rs 150,000 per jerib.[125] The buoyant economy

116 Shen Ghazai #8.

117 Shurwak #14.

118 Shna Jama #3. Shen Ghazai #3.

119 Dashte Ab Pashak #9.

120 Dashte Loy Manda #8. Dashte Loy Manda #12. Shurawak #1. Nawabad Shawal #8. Dashte Shin Kalay #13.

121 Dashte Loy Manda #9. Shurawak #3.

122 Shen Ghazai #10.

123 Shen Ghazai #11.

124 For example, a tenant farmer in Dashte Ab Pashak (#2) reported that he was marrying his son, which involved a walwar of Pakistani Rs 800,000. Another in Shurwak (#10) reported cost of Rs 700,000.

125 Shurawak #7. Shurawak #12. Dashte Shin Kalay #10.

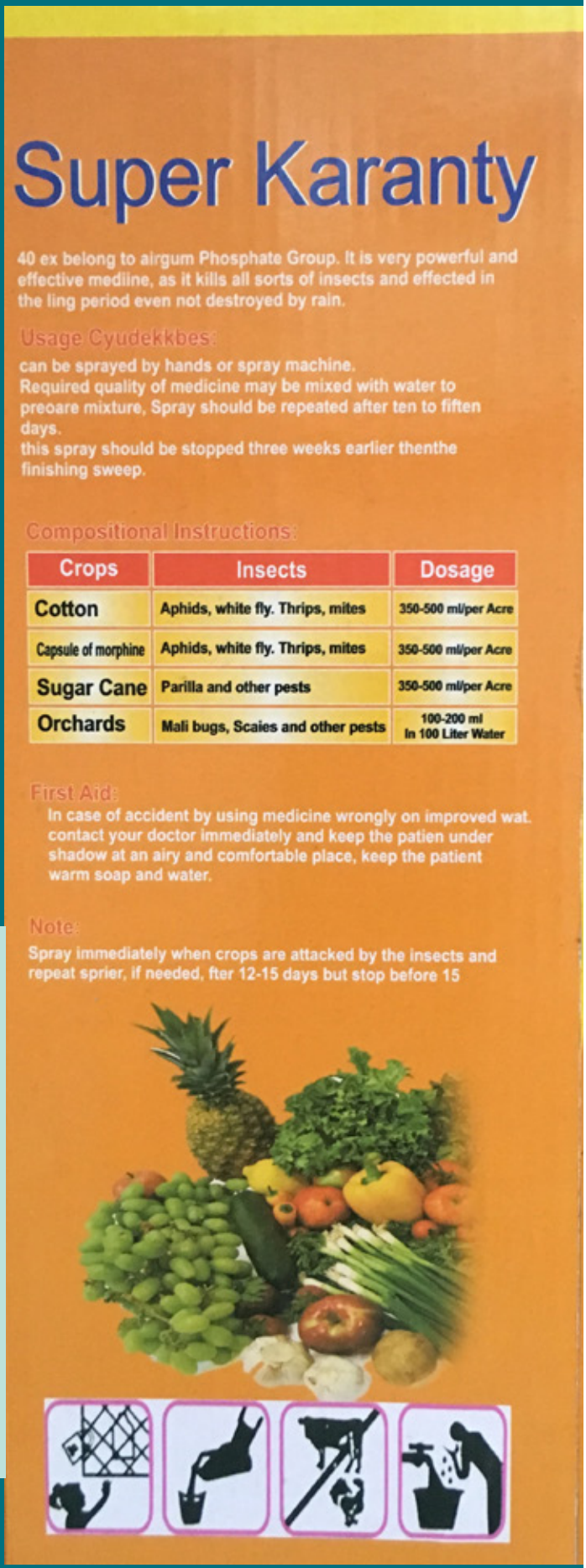


Figure 16: An example of a pesticide for use on opium poppy and instructions. Sold in Lashkar Gah, Helmand, April 2017.

and the lack of ANA in the area was even credited with the expansion of some of the bazaars that straddled the Boghra, including Nawabad Shawal, which had all but been closed until the Taliban's return at the end of 2015 (see Figure 18).

In fact such was the yield in the former desert areas in 2017 that those selling solar technology[126] built their inventory, importing large shipments of panels and pumps from China, in preparation for a rapid rise in sales following the harvest (see Figures 19 and 20). Many of these traders anticipated a dramatic increase in the use of solar technology prior to the planting season in thefall.

Furthermore, the economy north of the Boghra was such that it was expected that there would be a further inflow of people into the former desert area in the fall of 2017 in preparation for the planting season for the 2018 crop. A number of farmers had arrived from the canal command area for the 2017 season and were pleased with their decision. As one farmer who had arrived in Dashte Loy Manda prior to the 2016 season put it "when I arrived in the desert my food became fat."[127] Many of these newcomers associated their newfound prosperity not just with the favourable opium yield but with the Taliban's dominance in the area. For example a sharecropper who had moved to the desert from Chanjir exclaimed: "When the *dowus* [pimp] government are there we can't work on our land, now we are free. When the government is gone from the area our life is improved."[128] There were many more profane views of the government, condemning the authorities for banning opium in the canal command area and thereby forcing farmers into the desert, while at the same time celebrating the government's inability to come north of the Boghra to interfere with their lives.[129]

126 At the time of fieldwork there were around 25 to 30 shops selling solar in the Hajji Ghulam Nabi Market in Lashkar Gah.

127 Dashte Loy Manda #14.

128 Shan Jama #8.

129 For example, a sharecropper who had moved to Dashte Shin Kalay (#14) from Shin Kalay four years prior said, "F**k the wife of these *dowus* people. Don't mention their name. We have the Taliban here and we are finally free of these people."

Figure 17: Changes to Nawabad Shawal bazaar on the Boghra canal, Helmand, 2010 & 2017

In sum, there seems little that will move these new settlers from their new lands in the former desert north of the Boghra. In bad years, these farmers have been able to manage repeated low opium yields by reducing their household consumption and selling off any assets that they might have accumulated, including any inventory of opium. Farmers have also adopted new technologies as a way to mitigate falling yields and their impact on net returns. Solar technology represents a real "game changer," all but eliminating the recurrent costs of operating a deep well in these former desert areas. This technology along with the use of herbicides allows greater amounts of land to be cultivated with opium without incurring the cost of pumping water or hiring labour during the weeding season – costs that deterred more extensive cultivation in the past. For many in these areas who have not owned land before and who believe they were forced out of the Food Zone by a government that prioritises its own avarice and the drug control objectives of foreign patrons above the needs of the rural population, there is little reason to return to the canal command area, even if poppy has returned there. It looks as if it is only the prospect of a falling water table that will eventually force these farmers to leave these recently settled areas.

Figure 18: Examples of pesticides advertised for use on opium poppy. Sold in Lashkar Gah, Helmand, April 2017

UPER MANCOZEB 80% WP

Chemical Name: [[1,2-ethanediylbis[carbamodithioato]](2-)]manganese
mixture with [[1,2-ethanediylbis[carbamodithioato]](2-)]zinc
Mancozeb is a fungicide with a protective action

CUPRAVIT BLUE 50% WP

Chemical Name: [[1,2-ethanediylbis[carbamodithioato]](2-)]manganese
mixture with [[1,2-ethanediylbis[carbamodithioato]](2-)]zinc
super cupravit blue is a fungicide with a protective action

Uses:

For the control of many fungal diseases such as, blight, leaf spot, rust, downy mildew, scab, etc.
super cupravit blue is used for the control of early and late blights of potatoes and tomatoes, leaf spot disease on celery, berries, roots on cereals, vegetables, roses, asparagus, beans, apples and plums downy mildews on onions, ticks, lettuce and to bacteriosis on apples and pears.

Warnings/Caution:

Do not get the chemical into eyes, skin or cloths. While handling, wear protective clothing and equipment such as apron, mask, rubber or plastic gloves, goggles and face shield.Do not eat, drink or smoke while spraying. Wash with soap thoroughly all affected parts after handling.
In case of skin contact, wash with soap and plenty of water. Avoid contamination with food and feeds.
Destroy empty packet.

uper Lmb la power

Figure 19: Solar panels piled up outside store in Lashkar Gah bazaar, Helmand, April 2017.


6SR30/8 DONGYIN

Figure 20: Pumps for solar powered tubewell, Lashkar Gah bazaar, Helmand, April 2017.

6. CONCLUSION

While many cited the success of the HFZ and the reductions in opium poppy cultivation, its drug control achievements ultimately proved unsustainable. In fact rises in cultivation in the former desert areas began to outweigh the reductions achieved in the Food Zone as early as 2011. Since 2013 poppy cultivation in these former desert area waxed and waned, a function of poor plant husbandry and dwindling yields that even prompted some sharecropping households to return to the canal command area. However, poppy also began to revive in the canal command area beginning in 2013. These increases were largely on the periphery of the Food Zone and were kept in check by the ANDSF despite the withdrawal of international military forces in 2014 and by low opium yields that plagued cultivation both north and south of the canal between 2012 and 2015.

However, this all changed in 2017. In the former desert areas, the recovery of opium yields in 2016, and the adoption of solar powered technology in 2017 led to a resurgence in opium poppy cultivation after unusually low levels of cultivation the year before. In 2017, there was once again more land allocated to opium poppy than wheat in these former desert areas and yields fully recovered.

Perhaps of even greater concern was the dramatic rise in cultivation in the Food Zone itself in 2017. In late 2016 the ANDSF was routed and the insurgency gained the upper hand in the canal-irrigated parts of central Helmand. This established the conditions that allowed increasing numbers of farmers to commit their land to opium poppy. And while cultivation did not yet reach the peaks that were seen in 2007 and 2008 there was significantly more opium in districts like Nad e Ali, Marjah and even in the district of Lashkar Gah, than had been seen for many years.

The result of the dramatic increases in cultivation north and south of the Boghra canal is significantly more opium poppy grown in Helmand in 2017 than in the province's past, including the previous peak of an estimated 103,590 hectares in 2008. The increase is such that opium production in Helmand in 2017 could well surpass previous records for the country as a whole.

As this paper has shown, the explanation for these unprecedented levels of opium poppy cultivation in Helmand lie at least in part with the socio-economic and political processes that were accelerated by the HFZ.

Most importantly the ban on opium in the canal command area imposed by the HFZ, along with the focus on replacing poppy with wheat, created a mobile labour force skilled in poppy cultivation in search of a livelihood and a place to live. While farmers had already begun to settle the former desert lands north of the Boghra prior to the HFZ, rates of settlement and the intensity of poppy cultivation both increased following the imposition of the ban in the canal command area.

The increased supply of cheap sharecropping labour also drove down the costs of opium production. This allowed those that owned larger landholdings to bring fallow land under cultivation. The influx of farmers in search of a livelihood in the absence of opium production in the Food Zone also drove up the price of land, leading some landowners to invest in soil improvements and irrigation and sell the land they had not yet cultivated as a going concern. Once land was monetised and sold on there were fewer barriers to entry for those farmers wishing to move north of the Boghra from the canal command area.

Once this process of settlement began and households who had previously been landless in the canal command area saw the opportunity to purchase land, build a home and accumulate assets using capital from intensive opium poppy cultivation north of the Boghra, there was going to be little to persuade them to leave. Moreover, the success of these settlers served as an example to others and provided a valuable support network for those that wished to follow.

The move to the desert also prompted increasing experimentation and technological adaptation by farmers looking to secure their livelihoods in this hostile terrain. The shift, first from shallow wells, to deep wells, then from diesel to solar powered pumps and generators, is evidence of the way farmers have adapted to the challenging environmental conditions of farming in these former desert areas. Further experimentation with herbicides and pesticides, and even "new" varieties of seed have shown the degree to which farmers (and local entrepreneurs) have responded to falling yields and the need to increase the net returns on their opium crop if they are to retain their land and lives in these former desert areas. These technological advancements are now being adopted in the canal command area increasing profitability and further entrenching opium production there.

Solar technology is the most important technological innovation that has the potential to further change the landscape of Helmand, bringing yet more desert areas into cultivation. High resolution imagery and geospatial analysis has shown the rapid uptake in this technology since 2015 as farmers have sought to reduce the recurrent costs of production in the former desert areas and manage the problem of consistently low yields. Since 2016 increasing amounts of this technology is to be found in powering deep wells within the poorly irrigated areas of the Food Zone, areas such as Louy Bagh, Dashte Shersherak and Dashte Aynak. It is anticipated there will be many more farmers making the shift to solar powered deep wells in the run up to the 2017/18 growing season with the likelihood of further increases in poppy cultivation both north and south of the Boghra canal.

Finally the drive to ban opium under Governor Mangal and the HFZ fuelled the population's antipathy to the Afghan state, and thereby hastened the collapse of the government in Helmand following the departure of US and UK military forces in the summer of 2014. This was especially true of those areas and populations who did not have a viable alternative to opium production. While the landless and land poor moved north of the Boghra transforming the former desert land into agricultural land, those that owned land in places like Marjah and western Nad e Ali experienced significant losses in welfare. Unwilling or unable to abandon their property and settle the desert land, and absent the non-farm income opportunities of those located near the provincial centre, farmers in these more distant areas were almost entirely dependent on agricultural production and the sale of any opium inventory they held for their livelihoods. Furthermore, the distance between Marjah and western Nad e Ali from the primary agricultural markets in Lashkar Gah and Gereshk, and the limited demand for agricultural produce in these cities, deterred farmers from converting anything but a small amount of their land to high value horticulture. As geospatial analysis has shown the kind of crop diversification that was seen in places like Qala Bost and Bolan, on the outskirts of the city of Lashkar Gah, is increasingly less prevalent the farther away land is located from a major urban area.

In these more distant areas, under duress opium poppy was replaced with increasing amounts of wheat as well as low risk low return spring crops such as cotton and small amounts of melon and watermelon. The result was a significant fall in household income and the pursuit of coping strategies that indicate growing levels of economic stress, including reducing the amount and quality of food consumed, curbing health expenditure, the sale of long term productive assets, and enlisting male members of the household in the

military. The population of these areas places the blame for the loss in food security, savings and assets squarely at the feet of the government and its decision to ban opium poppy. The resentment and anger in many areas where households experienced significant losses in welfare is palpable and continues to shape the population's relationship with the Afghan authorities and the insurgency.

In 2017 the anti-government sentiment in these areas has been further exacerbated by the ANDSF campaign to retake parts of the districts of Lashkar Gah and Nad e Ali. The timing of this campaign, coinciding with the opium poppy harvest - resulting in both losses of crop and life – as well as the belief that a return of government forces would lead to the return of an opium ban, means the government is largely unwelcome. Disrupting the harvest of any crop – particularly one as input intensive as opium – was always going to lead to the accusation that the government had little understanding of the rural population and its way of life. The close association farmers make between government forces, the prohibition of opium and unfulfilled promises of development assistance, can only make it harder for the ANDSF to wrest control of central Helmand from the insurgency.

It is important to consider this development when we consider NATO's Resolute Support Mission has established that the government of Afghanistan needs to have control or influence of 80 percent of the Afghan population by 2019 if it is to successfully counter the insurgency. While there are growing doubts over the methodology used to measure control and influence and some questions over the merits of the 80 percent target, much greater thought needs to be given to how counterinsurgency and counternarcotic efforts can be de-conflicted. The HFZ has shown that the effects of a ban on opium production reverberate long after the intervention has finished. It has also shown that a poorly considered intervention can set in motion second order effects that not only transform the physical and political landscape but entrench drug crop production over a much wider area than they were originally grown.

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Phase A, Street 1, District 10, Shar-e Naw
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Phone: +93 (0) 799 608 548
Email: areu@areu.org.af
Website: www.areu.org.af

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