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Examining the Impact of IDEA-NEW on Opium Production

Nangarhar: A Case Study



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1. INTRODUCTION

1.1. Background to the Evaluation

The USAID Incentives Driving Economic Alternatives for the North, East and West Program (IDEA-NEW) was built on the efforts of the Alternative Livelihoods Program North (ADP-N) and,¹ Alternative Development Program - East (ADP-E).² Both of these programs were designed to dissuade farmers from growing opium poppy by increasing access to licit, commercially viable alternative sources of income. Running from March 2009 to March 2014 IDEA- NEW is a US\$ 159.88 million rural development program that 'works to increase agricultural production, rural enterprise, and related infrastructural development, access to financial services, and overall value-chain development and integration for key regional industries'.³ IDEA-NEW is almost entirely (98%) funded from the Alternative Development budget of USAID, and falls under the responsibilities of the office of agriculture in Kabul.

This evaluation stems from an audit by the Office of Inspector General (OIG) of USAID which in the June of 2012, reported that IDEA-NEW 'was unable to provide evidence of the programs contribution [to reducing poppy]'.⁴ This was despite the program's raison d'être and the source of its funding. The audit argued the program's failure to account for how it impacted on levels of opium poppy cultivation in the 14 provinces in which it operated was due to USAID/Afghanistan changing the program's overall goal, dropping two of its intermediate results, all of which led to an exclusive focus on expanding the licit economy.⁵ While USAID/Afghanistan disagreed with the OIG's conclusion, this evaluation is designed to examine IDEA-NEW's contribution to reducing opium poppy in one of the provinces in which IDEA-NEW is implemented, that of Nangarhar in eastern Afghanistan.

It was a resource decision to concentrate the evaluation effort on one province⁶ but given the focus of the study there was little debate as to which one it would be. Nangarhar was considered to be of primary interest as it is an area where opium poppy cultivation had been entrenched over many years but where an opium ban has been successfully imposed on more than one occasion, only for cultivation to rise in subsequent seasons. During the course of ADP-E, cultivation in Nangarhar fluctuated widely, falling from 28,213 ha in 2004 to 1,093 ha in 2005⁷ only to rise again to 18,739 ha in 2007. Furthermore,

¹ ADP-N ran from 2005 to 2009, covered the provinces of Badakhshan and Takhar and cost US\$ 51 million.

² ADP-E ran from 2005 to 2009, covered Kunar, Laghman and Nangarhar and cost US\$115.48 million.

³ USAID/Afghanistan, Agricultural Sector Assistance Strategy, Annex Poppy Cultivation and USAID Alternative Development Efforts in Afghanistan, Draft September 26, 2014, page 56.

⁴ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁵ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁶ Initially there were plans to examine the impact of IDEA-NEW in two quite contrasting provinces, Nangarhar and Badghis, so as to further build on the case study approach of the evaluation and both broaden and deepen the comparative analysis. However, both funding constraints and the shortage of time led to a decision to concentrate the effort in Nangarhar.

⁷ ADP-E predecessor, Afghanistan Immediate Needs Program - Nangarhar (AINP-N) was a response to the reductions that took place between 2004 and 2005.

in the growing season prior to the start of IDEA-NEW, opium poppy cultivation was eliminated altogether in Nangarhar, and the province was declared 'poppy free' by UNODC. In fact, during the first years of IDEA-NEW Nangarhar was viewed as a 'model' province from both a counternarcotics and counterinsurgency perspective, and the Governor at the time, Gul Aga Shirzai, was seen as someone who had successfully extended the writ of the state into some of the most remote parts of Nangarhar, in a large part due to his efforts to eliminate opium production.⁸

Since 2010 the operational environment in Nangarhar has changed dramatically. Security in particular has followed a downward trajectory and IDEA-NEW has had to respond to a rapidly changing working environment.⁹ In 2012 it adjusted to the worsening security situation in Nangarhar by moving away from direct implementation and presence in the southern districts where opium poppy is concentrated, to supporting value chains and businesses that could operate in what are chronically insecure rural areas. This has led to a focus on 36 different businesses in Nangarhar, of which half are purchasing agricultural produce to a value of US\$ 1.4 million per annum, of which US\$ 645,000 is from districts where opium poppy is grown in 2014. The other 18 businesses are inputs suppliers selling around US\$ 4.4 million of seeds, fertilizers, pesticides and agro machinery across Nangarhar each year.¹⁰

While it is not the place of this evaluation to chart the processes that led to the deteriorating security conditions in Nangarhar,¹¹ it is important to acknowledge that the counternarcotics effort and its impact on segments of the rural population has been catalytic, providing a stimuli for rural resistance and insurgency in the southern districts. It was following the failed eradication campaign in Sherzad in the spring of 2010, and during the protracted land dispute in Achin¹² that began around the same time, that the weaknesses of the Afghan state were fully exposed to the rural population. Once this process began in the southern districts and the vulnerability of the Afghan National Security Forces (ANSF) were revealed, it quickly gathered apace. By 2011 Governor Gul Aga Shirzai's reputation as a man of action was in ruin and the political settlement between the provincial political leadership, the rural elite and the population that had successfully underpinned the early years of Gul Aga Shirzai's leadership was no more.

⁸ Both Mukhopadhyay (2014) and Mansfield (forthcoming) offer in-depth analysis on how the counternarcotics effort in Nangarhar was critical to Gul Aga Sherzai's projection of the appearance of state power with foreign donors and to a lesser extent the Afghan rural population. See Muhopadhyay, D. (2014) *Warlords, Strongman Governors, and the State in Afghanistan*. Cambridge: Cambridge University Press; Mansfield, David (forthcoming), *Built on a Foundation of Sand: How Drugs and Drugs Policy Undermined the Afghan State*. London: Hurst and Co.

⁹ In June 2011, one staff member of IDEA-NEW was killed and four injured by an IED in upper Khogiani.

¹⁰ This calculation is derived from a spread sheet provided by IDEA-NEW on 30 October 2014.

¹¹ For a detailed account of the reasons for the deterioration in the security situation and the worsening opium poppy figures in Nangarhar see Mansfield, D. (2013) 'All Bets are Off!: Prospects for (B)reaching Agreements and Drug control in Helmand and Nangarhar in the run up to Transition'. Report for AREU, January 2013; and Mansfield, D. (2014) 'From Bad they Made it Worse: The concentration of opium poppy in areas of conflict in the provinces of Helmand and Nangarhar', Report for AREU, May 2014

¹² Throughout this report the district of Achin is taken to include both the area of lower Achin, and the upper part of the district known as Spinghar. While some consider Spinghar a separate district, including IDEA-NEW, and it does have an administrative office in Kahi along with the district administration for Achin, UNODC include it under Achin.

By the time Gul Aga Sherzai resigned the Governorship to run for President in November 2013, he was a shadow of his former self, rarely leaving the Governor's compound and certainly not able to visit remote villages and instruct farmers not to grow opium poppy, as he did prior to the planting season in 2008 and 2009. His successor, Governor Maulvi Attaullah Ludin, a Nangarhari from Kama District near Jalalabad, inherited a province far more unstable than the one Gul Aga Sherzai had when he originally took over the governorship in the summer of 2005. With the US led Provincial Reconstruction Team (PRT) closed by June 2014, and a significant reduction in both foreign military assets and development assistance, Governor Ludin had none of the leverage his predecessor had over the rural areas.

By the summer of 2014 the security situation in the southern districts of Nangarhar bordering Pakistan had deteriorated to the point where government staff were largely restricted to the district centers and main highways, and access to many of the rural areas was all but impossible without deploying significant military force. Even in some of the lower lying districts along the main Torkham to Jalalabad road, such as Mohmand Dara and Shinwar, there was a significant insurgent presence and the ANSF often found themselves under attack when they moved out of their bases. Such was the levels of insecurity that according to the International NGO Safety Organisation-Afghanistan (ANSO) there were more incidents of violence in Nangarhar during the second round of the Presidential election than in any other province in Afghanistan (personal communication, June 2014).

Levels of opium poppy cultivation in Nangarhar have also increased dramatically over the course of IDEA-NEW, rising from 294 ha in 2009, to 3,151 ha in 2011, before reaching 15,719 ha in 2013. In November 2014 UNODC reported further increases in poppy cultivation in the 2014 growing season with a rise of 16 per cent to 18,227 ha. Although the bulk of the crop continues to be grown in the more insecure southern districts of Khogiani (4,755 ha), Achin (3,004 ha), Kot (2,040 ha), Sherzad (1,876 ha), Chapahar (1,866 ha) and Pachir wa Agam (1,588 ha) cultivation is increasingly encroaching into the lower valleys, to the extent that there were already signs of opium production in upper Surkhrud in the spring of 2014 (219 ha), as well as small amounts of poppy in the more remote parts of Kama (14 ha). In fact, in contrast to 2008 when the entire province was 'poppy free', and 2009 when only 4 districts produced opium, 14 of the 22 districts in Nangarhar were found to be growing opium poppy in 2014.¹³ There is also a high risk of increased levels of opium poppy cultivation in 2015, although the prospect of opium poppy once again being visible from Highway 1, as it was in 2004 and 2007, remains relatively unlikely.

The counternarcotics and development effort in Nangarhar has also fallen into disarray. Since 2013 eradication has been all but impossible in many of the southern districts where the crop has been concentrated. The kind of strategy used in each of the previous bans imposed in Nangarhar,¹⁴ where farmers were deterred from planting using a combination of negotiation, the promise of development assistance and the show of force through the roll-out of security personnel and infrastructure, is no longer an option. The failure to deliver on past promises, the harmful impact that successive bans had

¹³ UNODC/MCN. (2014) Afghanistan Opium Survey, November 2014. Kabul: UNODC/MCN. page 64

¹⁴ These were imposed under the Governorship of Hajji Din Mohammed in the 2004/05 growing season, Gul Aga Sherzai in 2007/08. The Taliban also imposed an almost complete cession of opium poppy cultivation across the entire country, including Nangarhar, in the 2000/01 growing season, prior to the regime's collapse.

on large sections of the rural population, and a perception that government forces do not have sufficient coercive power to impose their will without the support of US military forces, has rendered this approach unworkable, especially in the unruly southern districts where the Afghan state does not have a history of control.

Moreover, there have been other priorities for both the Afghan government and the international community. The planting season for the 2013/14 opium crop coincided with Maulvi Attaullah Ludin appointment as Governor, as well as a number of counterinsurgency operations that were intended to establish the security conditions for the Presidential election in April 2014, which is also the time of the opium harvest. Regardless of the growing insecurity in many parts of the province, these were far from ideal conditions for a repeat of the kind of interventions that Gul Aga Sherzai had used to reduce level of opium poppy cultivation during the early years of his tenure as Governor.

1.2. Evaluating IDEA-NEW's Impact on Opium Production

Examining the contribution that IDEA-NEW has made to reducing opium poppy in the increasingly volatile and challenging environment in Nangarhar is not an easy task. First, there are the obvious problems with conducting fieldwork in chronically insecure rural areas where both fieldworkers and respondents may be at risk. Some of these problems can be overcome by combining detailed livelihoods analysis and high resolution remote sensing imagery. This is a particularly innovative part of this evaluation.

Secondly, there are the methodological challenges of proving a causal relationship between the provision of development assistance, development outcomes and reductions in opium poppy cultivation. Attribution is a particular concern given that reductions in opium poppy cultivation are not simply a function of the provision of development assistance but often the consequence of a much wider range of interventions as the introduction has discussed, including the state's enhanced capacity to coerce the rural population, sometimes - as is the case in Nangarhar and Helmand - with considerable support of international military forces.

There is a further problem in attributing change solely to the activities of a program like IDEA-NEW given just how crowded some parts of Nangarhar have been with regard to the sheer number of organizations delivering development assistance. IDEA-NEW is just one of many international agencies that have implemented development projects in Nangarhar, alongside national ministries, NGOs and foreign military forces, including the Commanders Emergency Response Program (CERP) which has been a major source of development funding in the province. For example, Figure 1 shows the density of poultry projects implemented in Kama district by only three programs, IDEA-NEW, ALP-E, and the Comprehensive Agriculture Rural Development-Facility (CARD-F). Were the GPS points available and maps produced containing all of the development projects implemented across each of the sectors and

organizations involved, there would be a high concentration of activities, particularly in the lower districts of Nangarhar.

Indeed, interviews with farmers for this evaluation revealed that there were at least 8 different development projects had been implemented in each of the 1x1Km Research Sites over the last five years, even in the more remote southern districts. This made any attempt to attribute both welfare outcomes and reductions in opium poppy to a single program like IDEA-NEW highly problematic. Efforts to identify a number of locations where IDEA-NEW had not been in operation (RS 19 and 20) as part of a 'control group' also proved unsuccessful due to the concentration of other projects in these areas and the distinct local conditions.

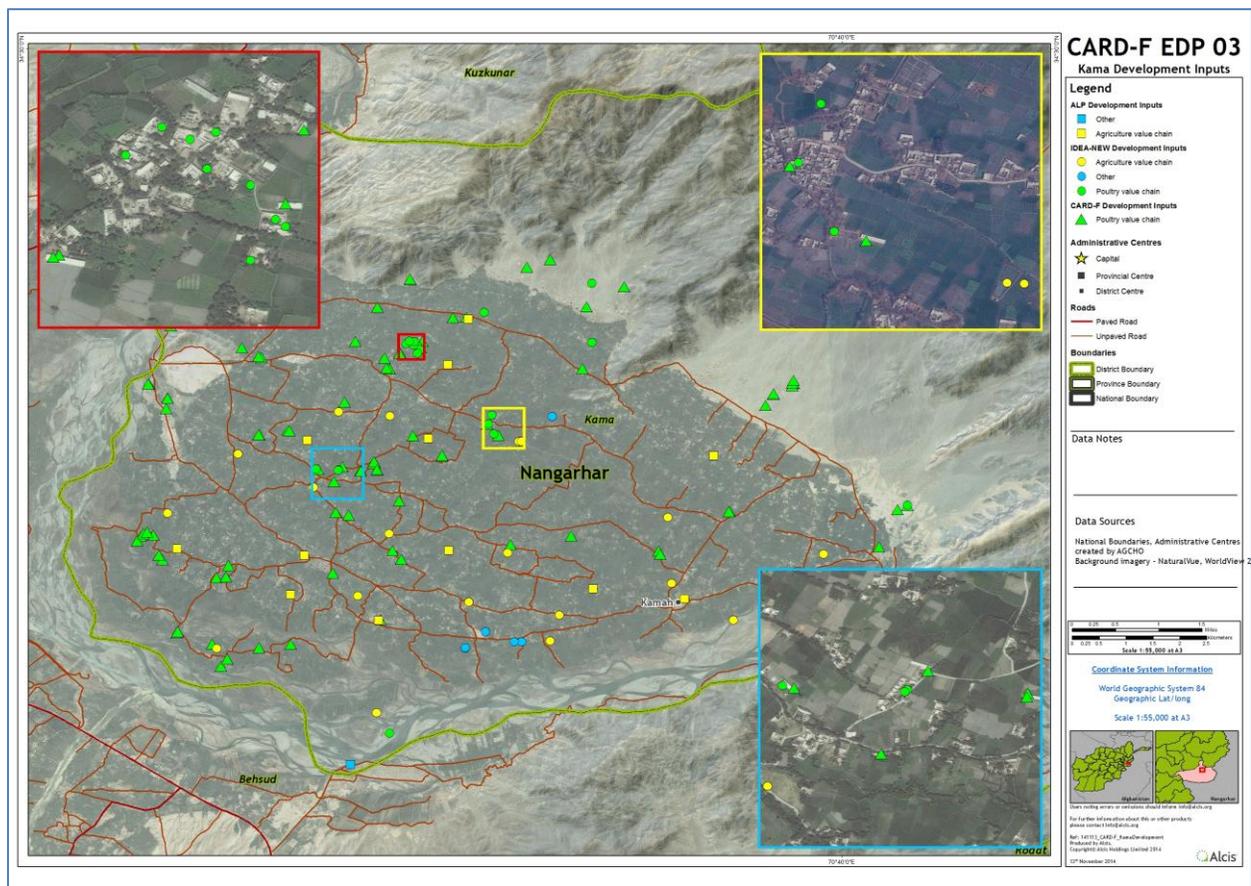


Figure 1: The distribution of poultry projects implemented by three programs in Kama district

Directly attributing changes to IDEA-NEWs activities is made all the more difficult due to the way that the program has had to operate, particularly in response to the deteriorating security situation in the province. Since its inception IDEA-NEW has been rather discrete in its project work especially in the

southern districts bordering Pakistan.¹⁵ IDEA-NEW, not unlike other agencies has where necessary not marked its investments with signs.¹⁶ This has often reduced farmers awareness of who has implemented projects.

Finally, since 2012 IDEA-NEW has moved away from the provision of the kind of infrastructural and agricultural projects that were such a core part of the program during the initial years and which led to staff working directly with rural communities, and has instead shifted towards the building of value chains. This change in emphasis - supporting micro, small and medium enterprises to build market linkages in rural areas - has been a natural transition for the program given the amount of direct assistance that had already been provided in Nangarhar and increasing insecurity in rural areas. However, the fact that development assistance is provided indirectly through interlocutors - in this case businesses - reduced farmer's awareness of the IDEA-NEW program and its contribution to both development and counternarcotics outcomes.

There is a third and final challenge with evaluating IDEA-NEW's contribution to reducing opium poppy cultivation in Nangarhar, and that is the dramatic resurgence of cultivation throughout much of the province. It is not sufficient to simply examine the level of development expenditure by IDEA-NEW in the districts and compare it with rising levels of opium poppy cultivation and to argue that IDEA-NEW has failed, as the return of poppy cultivation is in part a function of a wide range of other factors beyond the control of the program. However, nor is it possible to ignore the rise in cultivation given the significant investments made in the southern districts where poppy is concentrated (see Figure 2) and suggest that these are solely due to conditions beyond the control of development programs. There is particular value in examining whether the interventions implemented were appropriate given the dependency on opium poppy within these areas.¹⁷

It would also be difficult to justify focusing data collection in the lower lying and better resourced districts of Nangarhar where opium poppy has not returned. This would result in a bias towards these better resourced districts where not only have development investments been concentrated by IDEA-NEW and other programs but also where delivery has focused on a much wider range of sectors. Collecting data across a wider geographic area that includes the southern districts supports an examination of the risks that implementing a more limited range of interventions in areas where farmers have fewer viable alternatives to opium poppy could make matters worse. For example the potential for interventions like irrigation, or agricultural inputs like fertilizer, to be diverted into opium poppy cultivation. Furthermore, according to de Haan and Zoomers (2005: 44) there is more to be learned from a comparison of 'livelihood decisions in different geographical, socio-economic, cultural and temporal contexts so that patterns can be recognized as pathways that go beyond the specific case'.

¹⁵ IDEA-NEW staff, personal communication, 18 September 2014.

¹⁶ IDEA-NEW did brand and mark its activities in accordance with USAID Branding and Marking Guidance but in a few instances obtained waivers from USAID for activities in insecure areas.

¹⁷ Department for International Development/World Bank (2008). Afghanistan: Economic Incentives and Development Initiatives to Reduce Opium Production by Ward, C., Mansfield, D., Oldham P. & Byrd, W. February 2008.

Given the fundamental challenges associated with this combination of chronic insecurity, the multiplicity of development actors in any given area, problems of attribution, and the resurgence in cultivation, this evaluation does not examine the contribution that IDEA-NEW has made to reducing opium poppy cultivation in Nangarhar per se. Instead, it investigates what role IDEA-NEW has played in building household resilience to shocks, in particular a ban on opium poppy cultivation, building on empirical work that shows a resilient household has the flexibility to adapt and recover from exposure to shocks, while households unable to do so adopt coping strategies that undermine future earning capacity by depleting productive assets, leaving them more vulnerable than before.

This evaluation therefore examines how development interventions, in particular IDEA-NEW, have supported rural households in different parts of Nangarhar to diversify both their livelihood activities and their income portfolios so that they can better manage the shock of a ban on opium production. It uses data provided by IDEA-NEW, household data from 300 indepth household interviews, as well as high resolution remote sensing imagery to establish an inventory of development programs in a series of 20 research sites across Nangarhar, a profile of the livelihood portfolios in each, and an assessment of resilience. By examining livelihood portfolios across such a wide range of areas the evaluation looks as much at why some households have returned to opium poppy cultivation in the last three years, as much as why others are still not producing opium - in some cases a decade after they abandoned the crop in 2004.

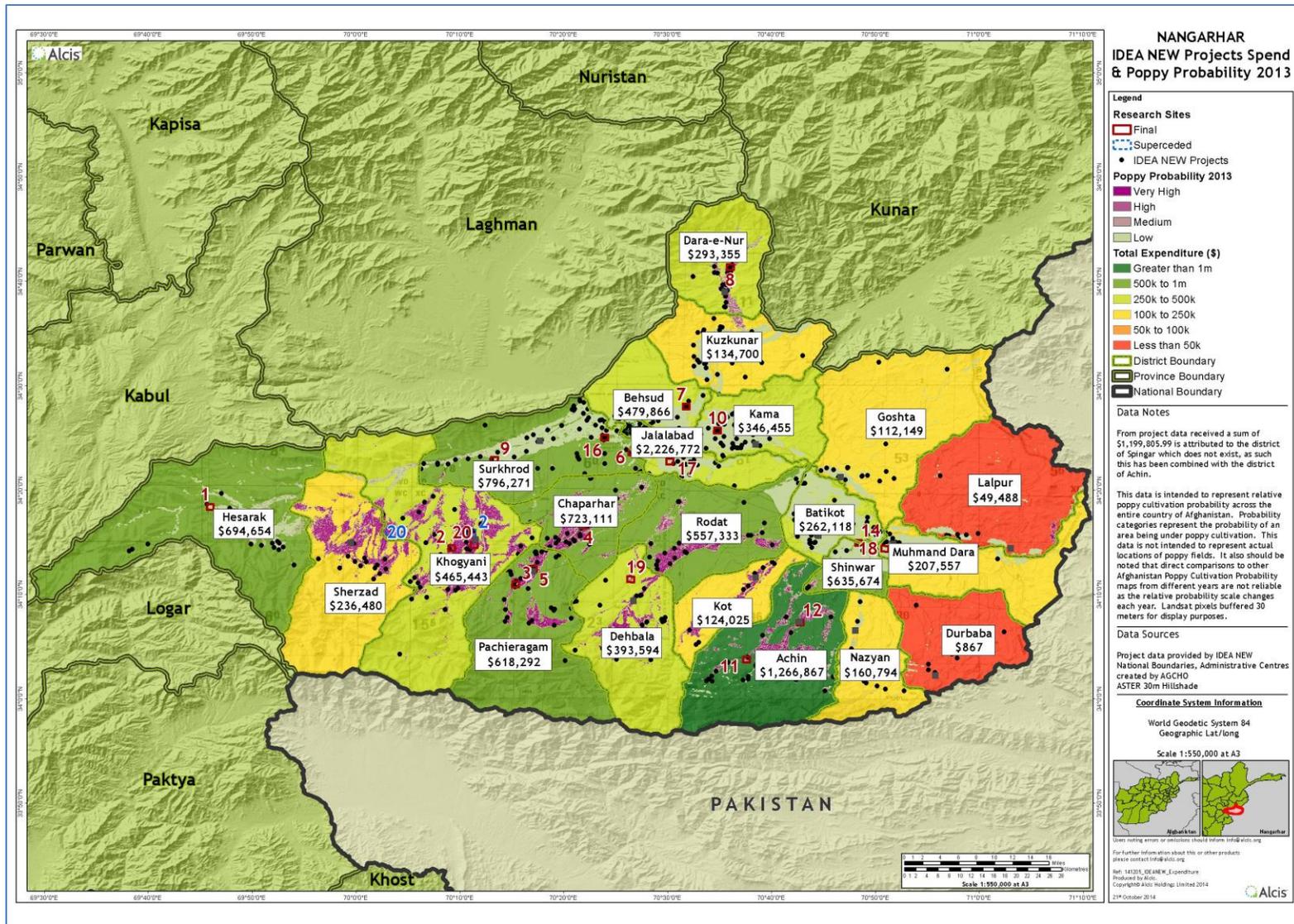


Figure 2: IDEA-NEW expenditure by district in Nangarhar, 2009-2014

The rest of the report is divided into three sections. The next section offers a detailed account of the methodology and how high resolution remote sensing imagery has been combined with detailed and focused livelihoods analysis throughout the evaluation process. The third section initially offers an overview of the geographic distribution of opium poppy within the province of Nangarhar before detailing the evaluation findings. This section is subdivided offering contrasting pictures of those areas where opium poppy has returned, often exceeding the level of cultivation and the yields found in 2007 - a year of peak production - and those areas where communities are maintaining negligible levels of cultivation, in some cases due to household resilience, and, in others, due to the continued coercive power of the state. This section contains an example of some of the high remote sensing imagery and analysis conducted for this evaluation. A full inventory of the imagery produced by the evaluation is provided in Annexes B, C, D and E.

Finally, the fourth section provides a conclusion that offers guidance on the conceptual debate between the OIG and USAID/Afghanistan regarding whether IDEA-NEW has been suitably focused on its original counternarcotics objectives, and is justified drawing on 'Alternative Development' funding. Drawing on the evidence generated by this evaluation, the conclusion challenges the idea that a development program is required to directly invest in areas where opium poppy is grown to impact on opium production, as the OIG audit suggests. However, the conclusion also supports the audit's assessment that an exclusive focus on expanding the licit economy - assuming that this would automatically lead to a reduction in the opium economy - was wrong, and argues that that the loss of any counternarcotics-relevant indicators in IDEA-NEWs Performance Measurement Plan (PMP) did, as the OIG argues, 'deprive [the mission and the program] of information needed to make sound programming decisions', not only to the extent that the program 'was unable to provide evidence of its contribution to reducing poppy'¹⁸ but perhaps worse, to the point where it cannot say how it might have encouraged further opium production.

Future development programming needs to consider this point carefully and regardless of the budget line it draws upon - alternative development, agriculture or other rural development funding - and at a minimum state how a program (i) will impact on different population groups within rural communities (ii) address the causes of opium poppy cultivation across different population groups and communities; and finally (iii) mitigate the risk that an intervention will encourage further opium poppy cultivation.

¹⁸ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

2. METHODOLOGY

2.1. Merging Livelihoods Analysis with Remote Sensing data

This evaluation is based on in-depth work in Nangarhar province and draws on three parallel but interrelated methods of data collection: first, in-depth fieldwork with 300 rural households; second, high resolution imagery, and: third, a review of program documentation and discussions with IDEA-NEW staff. The evaluation also draws on a wealth of historical data collected during the evaluation team's work in the province, including data collection with rural households and key informants in the province dating back each year to June 1997 and the team's experience amongst the wider counternarcotics and rural development policy communities in Afghanistan.¹⁹

At the heart of this evaluation is fieldwork with opium poppy farmers and former opium poppy farmers in Nangarhar province. At the forefront is in-depth household interviews conducted in a selected number of research sites conducted in two phases, the first in June 2014, the second in September 2014. Supporting this livelihoods analysis is detailed data derived from high resolution remote sensing imagery and other geospatial datasets over both these research sites and more widely at the provincial level (see Annexes B, C, D and E). This remote sensing data is an integral component of the evaluation that supported the selection of research sites, the verification of findings in particular crop identification, and facilitated a more in-depth examination of household and community level data collected during the fieldwork.

As already discussed in the introduction, limiting the analysis of the evaluation to more secure areas where opium poppy is not grown would not be appropriate given the purpose of the evaluation, the high level of investment by IDEA-NEW in the southern districts where opium poppy and insecurity coincide, and the types of development investments that have been made in these areas. It is therefore a fundamental principle of the evaluation design that it should reflect the extreme diversity in socio-economic, political and environmental conditions within Nangarhar, the different histories of opium poppy cultivation and drug control efforts across the province, as well as the uneven nature of development investments across the province.

¹⁹ The evaluation team have conducted research in rural Nangarhar each year since 1997. This has included work for the UK government's Foreign and Commonwealth Office each planting season since 2002; the Afghan Research and Evaluation Unit (AREU) during the harvest seasons from 2006 to 2009, and 2012 to 2014; as well as for GTZ in the planting and harvest seasons of 2004/05 and IDEA-NEW in the harvests seasons of 2010 and 2011. Prior to this David Mansfield managed fieldwork in Nangarhar as part of the UNODC Poppy Survey between 1997 and 2000, as well as for the Donors Mission examining the impact of the Taliban ban on opium in April/May 2001. OSDR's experience in rural Nangarhar is far more extensive and dates back to the 1980s when the core team worked for the Swedish Committee's Agricultural Survey.

Given this and the chronic insecurity in most of Nangarhar and particularly in the southern districts, as well as the continuing absence of the most basic demographic data in Afghanistan, large scale surveys using probability sampling techniques were ruled out.²⁰ Experience and the work of others also advised against more quantitative surveys and data collection methods for investigating an issue like opium poppy cultivation. Instead, the evaluation adopted a case study approach shaped by maximum variation sampling. The individual case studies, the selection of 20 research sites, and the individual households selected for interview were based on maximum variation sampling so that 'any common patterns that emerge from great variation are of particular interest and value in capturing the core experiences and central shared aspects' (Patton, 1990: 172). Further, in the words of de Haan and Zoomers (2005: 44), it was intended that the evaluation conduct a comparison of 'livelihood decisions in different geographical, socio-economic, cultural and temporal contexts so that patterns can be recognized as pathways that go beyond the specific case'.

High resolution imagery was critical to identifying the 20 Research Sites in which the fieldwork was to be conducted. IDEA-NEW project activities (by sector and expenditure) were initially mapped along with the history of opium poppy cultivation (years of cultivation and experience of eradication) to identify potential areas for fieldwork (see Figure 3 and 4). As crop identification and mapping for both winter and summer crops over the duration of IDEA-NEW was such an integral part of the evaluation, it was essential that there was sufficient high resolution imagery over enough years for the research sites selected (see Figure 5). Once overlaid, these criteria provided a range of possible areas for focussed fieldwork.

Research sites were selected that offered a sufficient number of locations with quite contrasting trajectories of project activity, opium poppy cultivation and experiences of eradication. These research sites were then discussed with the Afghan colleagues to determine whether it would be possible to conduct fieldwork or whether the degree of insurgent presence or ongoing conflict would rule some areas inaccessible. Flexibility was built into the evaluation design to allow fieldwork to be postponed until a subsequent phase if the security situation did not prove permissive, or to allow some research sites to be replaced altogether.

With regard to fieldwork itself, the evaluation design recognised the inherent problems with primary data collection when researching an 'illegal' or 'underground' activity and mitigated them by focusing the line of enquiry on household livelihood strategies in general. The pressure to act against opium cultivation and its trade has typically made the subject of illicit drugs a more sensitive topic for discussion with farmers and other stakeholders than it was in the 1990s and in the initial years of the twenty-first century. However, the rural household is the most accessible unit of analysis when looking

²⁰ Edwards (2010:12) points to just how unreliable and potentially misleading any attempt at random sampling in Afghanistan would be: 'In the realms of 'social sciences', survey research tries to approximate [data that conveys a degree of certainty], but particularly in places like Afghanistan, such research – especially when coached in the statistical language of percentages and coefficients – conveys a spurious sort of precision that is likely to mislead those who take it seriously.' For further comments on the limits of quantitative survey techniques and random sampling in the kind of conditions that exist in rural Afghanistan see Berg (2007:42) and Barakat et al (2002: 993).

at the opium economy in Afghanistan, and it offers a basis for cross-referencing findings with other work on rural livelihoods in Afghanistan, as well as other research that has been done on the role of opium poppy in rural livelihood strategies in Afghanistan and other opium producing countries.

Interviews focused on the portfolio of livelihood activities, the development assistance that had been received and the shocks, including the opium poppy ban, that households may have experienced. Opium production was treated as a crop within a wider range of activities that households are involved in. This approach recognizes that, given the complex and dynamic relationship between the various factors that inform household decision-making and how these are shaped by particular circumstances, it is inappropriate to simply ask households why they do or do not cultivate opium poppy; the reasons for cultivating opium poppy are typically multiple, they are not mutually exclusive and cannot be distilled to a single answer. Furthermore, to avoid a process in which households seek to 'negotiate' for the replacement of opium poppy in return for development aid, typically exaggerating the returns on opium production to extract greater assistance, no direct questions were asked in relation to the opium crop. Experience has shown that where opium poppy is cultivated, respondents will typically include it when recounting the different crops that they grow and sell.

While ideally interviews are conducted in the field during the planting and harvest season for the winter crops, to allow researchers to verify, and where necessary challenge, the veracity of respondent's answers, delays in the approval of the project and subsequently the vetting of Afghan colleagues led to fieldwork being conducted in June and September 2014. The informal style of the interview, the intimate knowledge local researchers had of the research sites and the population, the degree to which opium production has once again become commonplace in the areas of Nangarhar which it is grown, as well as the inability of the authorities to act against the crop, largely mitigated against farmers under-reporting opium poppy cultivation. Moreover, prior to fieldwork high resolution imagery was sourced and analysed in order to provide local researchers with information on cropping patterns and development inputs so that they could prompt or challenge those farmers whose responses were not in line with existing data for the research site.

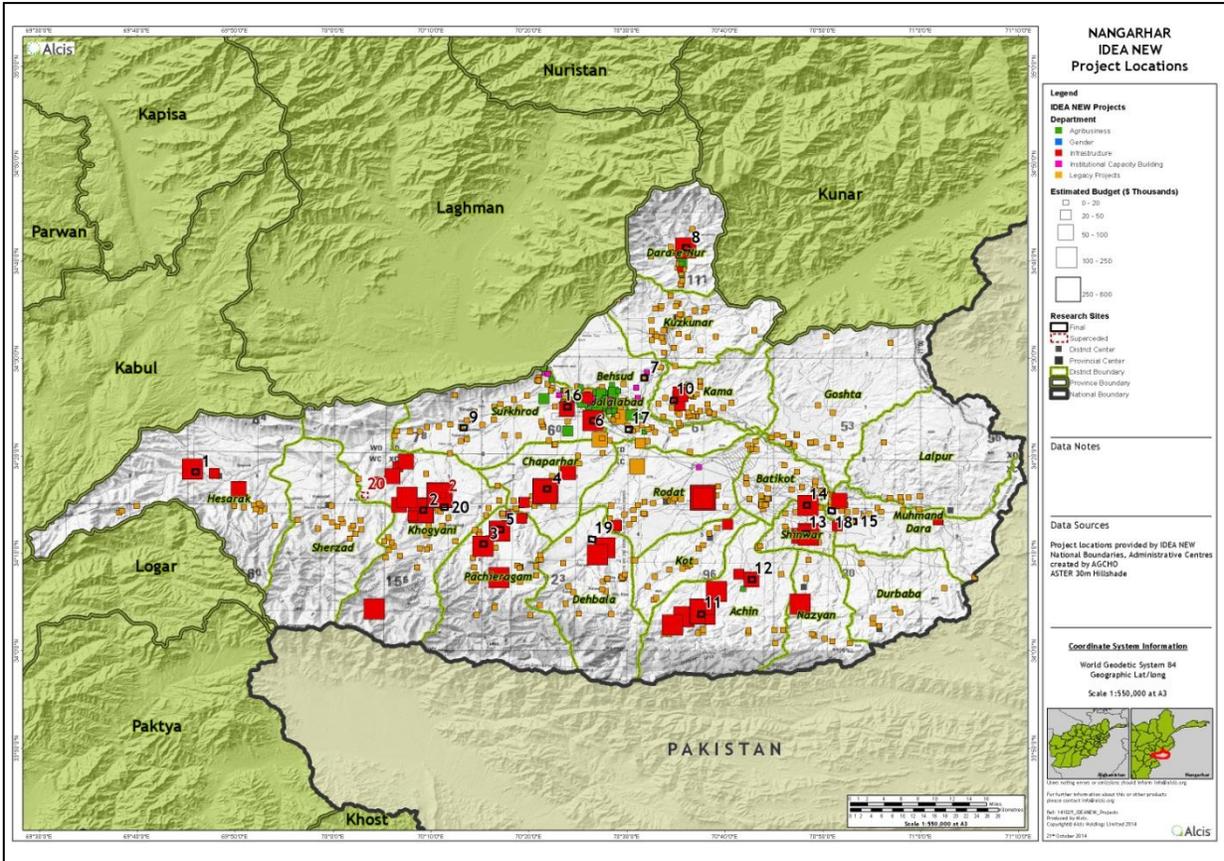


Figure 3: Location of IDEA-NEW projects by sector and expenditure

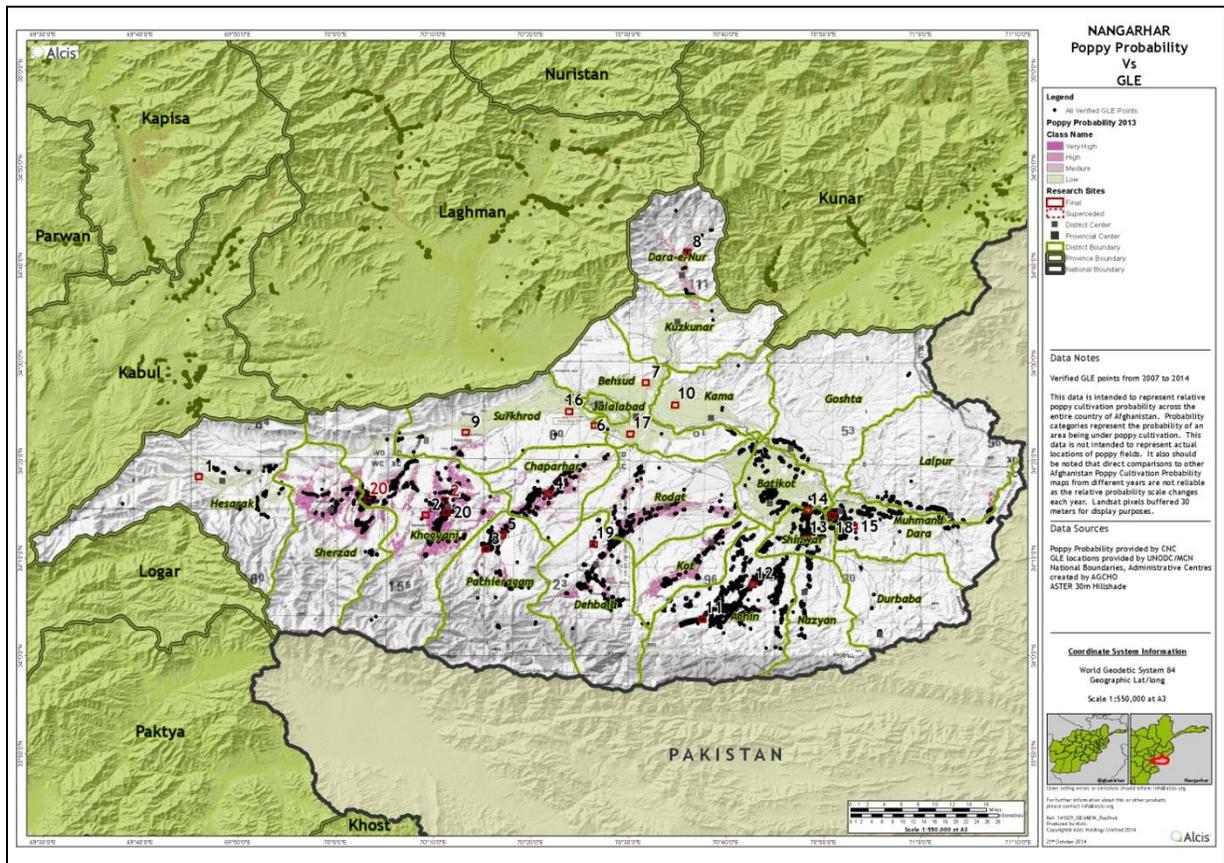


Figure 4: Cumulative poppy probability and points of eradication

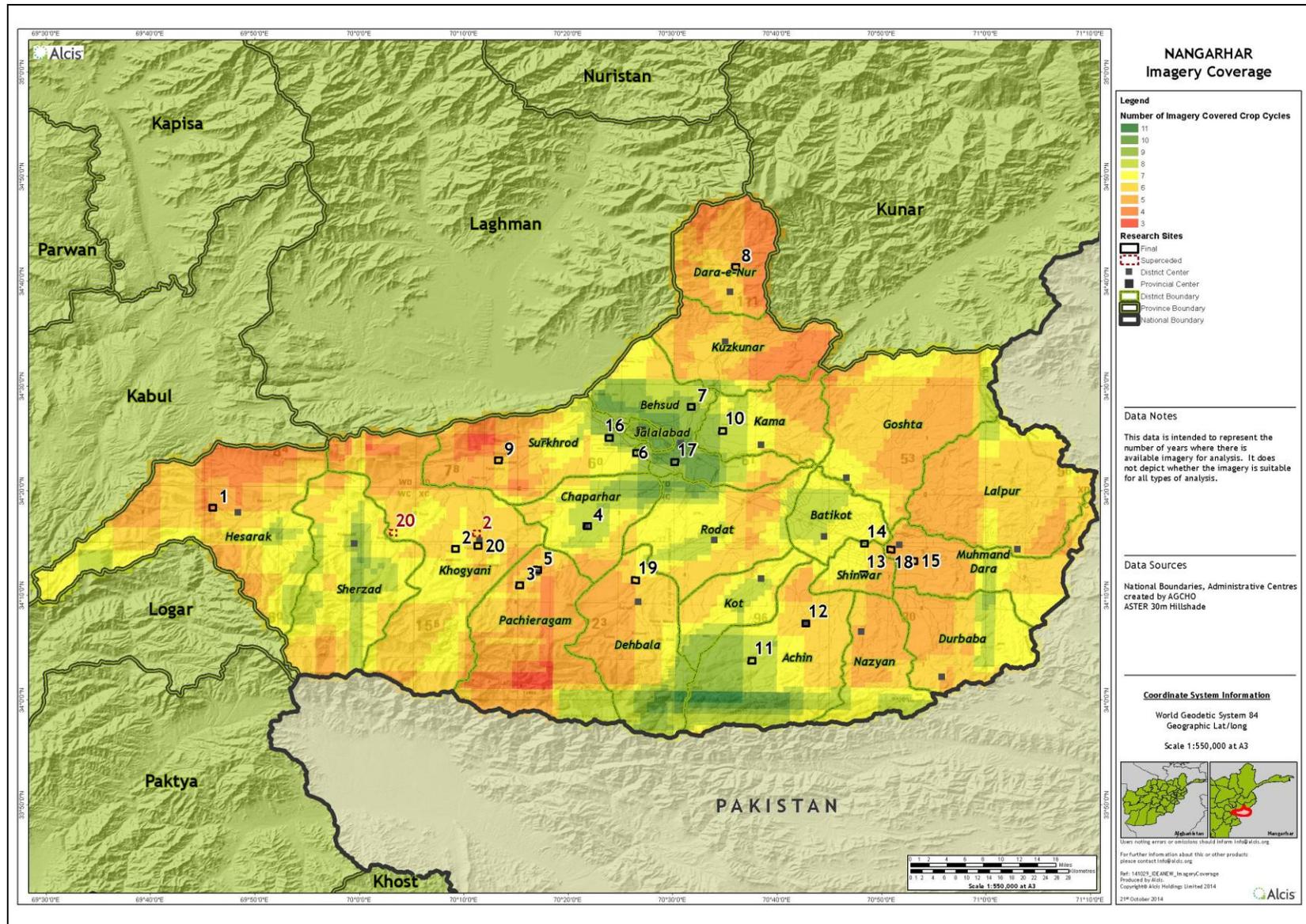


Figure 5: Geographic coverage of high resolution imagery used for crop identification

Discussions with farmers focused on the direct experience of the respondent and their household rather than of a wider geographic area where answers become increasingly more speculative (Swedish Committee for Afghanistan 1992:1).²¹ Individual interviews with farming households were undertaken in the field as farmers tended their crops. 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 Nangarhar (Goodhand 2000: 13; Shairzai et al 1975:13; Stevens and Tarzi 1965: 1).²² To verify information on crops sales and how agricultural markets function, a range of different wholesale and retail traders were interviewed in each of the main bazaars in the districts covered by the fieldwork as well as in the provincial center, Jalalabad.

Finally, the evaluation design recognizes the degree of socio-economic differentiation that exists within communities. Within each research site households were selected for interview based on purposive sampling. Emphasis was placed on obtaining a cross section of different socio-economic groups within each of the sites selected so as to explore which groups are more likely to benefit from development assistance and which are more vulnerable to interventions such as crop eradication. It is anticipated that by interviewing a cross section of different socio-economic groups within each of the different sites (as well as drawing on historical data) it would be possible to better understand how the development activities of IDEA- NEW impact on different population groups and their resilience to the Afghan state's efforts to curb opium poppy cultivation.

A further challenge for the evaluation was to identify and isolate the effect of IDEA-NEW's specific development investments. Experience shows that farmers will often have a good knowledge of the development outcomes associated with a particular project or program but they are not always aware of which organization was responsible. Fieldwork for this evaluation suggests that women in particular are often unsighted on many of the agricultural and infrastructural programs implemented in an area.

It was anticipated that there would be further challenges because farmers might have a particular problem with identifying the projects implemented by IDEA-NEW due to the way the program has operated in Nangarhar. For one, IDEA-NEW has sometimes implemented its projects through subcontractors which has reduced farmers' awareness of IDEA-NEW and the particular projects it has

²¹ *'[The ASA's national surveys] are based on specific information that a farmer gives directly to the enumerator about his own, and no one else's farming operations. This, we believe, is essential to quantitative data collection. If the respondent is asked questions about his village or district his answer in many cases is likely to be vague simply because the question is extremely difficult to answer with any degree of accuracy. From experience we have also found that generalized agricultural information resulting from group interviews or from village elders is of poor quality when compared to that derived from individual farmers speaking about their own farms'* (Swedish Committee for Afghanistan 1992:1).

²² *'At the beginning of the study we chose the names of farmers to be interviewed from lists supplied by the village chief. These names were chosen at random and farmers were usually called to the village chiefs' home where we interviewed them. After following this procedure for several days, however, we changed our method and began contacting farmers in their homes or in their fields without previous knowledge of the village chief. We felt this procedure eliminated some of the bias we seemed to have been getting by the previous method'* (Stevens and Tarzi 1965:1).

funded. Secondly the decision to not locate IDEA-NEW signs at project sites -in part to manage the growing security problem and not draw undue attention to their efforts but also part of an effort to engender a sense that projects were government led - has also reduced the profile of IDEA-NEW in the minds of farmers. Finally, the move since 2012 to focus the effort on agribusinesses support resulted in much less direct contact between the program and rural communities, particularly in the southern districts where poppy is concentrated. Again, this has led to farmers being unaware of IDEA- NEW's efforts in the province and, it turns out, a growing perception amongst the rural population that the program was no longer operational in their area.

Despite these concerns respondents were often aware of IDEA-NEW's past investments in the research sites, particularly in infrastructure. In fact a number of respondents across a wide range of research sites talked of the quality of the engineering and construction work under IDEA-NEW. There was much less knowledge of the agricultural projects, particularly amongst women.

Remote sensing was particularly useful for overcoming some of the problems that respondents had in identifying IDEA-NEW projects. Initially the project related GPS data that was provided by IDEA-NEW was mapped. High resolution imagery was then examined to check for the introduction or improvement in infrastructure, new lands brought under cultivation by irrigation and obvious changes in cropping patterns, for example the introduction of orchards within the potential research sites. During fieldwork respondents were then asked to identify the development programs that had been implemented in their village since 2009 and their impact. This data was then used to verify the GPS data provided by IDEA-NEW, with any anomalies resolved in consultation with the program. The development impact of IDEA-NEW's specific projects in research sites could then be assessed drawing on a combination of both the responses to household interviews and remote sensing imagery.

To further explore how the experience of development assistance and efforts to ban opium poppy differed by location and socio-economic group detailed debriefings were conducted with local researchers in Jalalabad. These debriefings were conducted after each day of fieldwork and involved the transcribing of household interviews as well as a comparative analysis of research findings with local colleagues. While imagery supported the careful selection of research sites for fieldwork, it also supported the process for debriefing, providing a resource for data verification and the further exploration of research findings. For example, high resolution imagery and mapping products allowed the results of household interviews to be reviewed while at the same examining high resolution image of the individual respondents' household compound and agricultural land. The inclusion of different layers of historical data allowed data on security, vegetative index, poppy probability and eradication sites to be compared across the different research sites. Imagery even allowed reports of new land being brought under cultivation to be examined and subsequently measured.

Debriefings with fieldworkers alongside high resolution imagery also allowed farmers' reports of development outcomes attributed to different development programs - not just IDEA-NEW - to be reviewed and further examined and further fieldwork to be tasked if required. In turn, the livelihoods analysis provided detailed context and explanations for phenomenon found in the initial imagery which

could be shared with the imagery team for further review and examination. It is this iterative process in which data collected from contrasting locations, socio-economic groups and using different methodologies was constantly reviewed and built on that allowed findings from household interviews from the research sites to be generalized across a wider geographic area.

2.2. Methodological Constraints

Research in Afghanistan is always subject to biases. This is even more the case in a chronically insecure environment such as that found in Nangarhar. The paucity of reliable demographic data hinders establishing a representative sample in such areas, both fieldworkers and respondents have legitimate concerns for their own safety, and there are challenges with oversight of data collection in the field. The research methodology outlined above is designed to address these challenges, but nevertheless a number of caveats must be noted, particularly given the insecurity in Nangarhar, and the types of sensitive issues the evaluation touched on in the field.

The most important caveat relates to the impact the conflict has had on fieldwork. Insecurity limits the geographical coverage of fieldwork, often at short notice, rules out formal structured interviews in more insecure rural areas, and makes the southern districts of Nangarhar difficult environments for conducting field research. While a focused research design and a core team of experienced local staff allows fieldwork to proceed in areas exposed to the worsening conflict, results of the research are inevitably shaped by the prevailing security situation. For example, fieldwork in RS 1 in Hesarak proved impossible during both phases of the fieldwork due the pervasive presence of armed groups during the second of the presidential election and following significant fighting in the area in August 2014.

Insecurity also meant that research sites 2 and 20 in Khogiani had to be moved following the intensification of fighting between the ANSF and insurgent groups in the run up to the Presidential election. New research sites in the Wazir valley in Khogiani were identified using the process outlined in the methodology section above. Both were areas where opium poppy cultivation had returned, locations where IDEA-NEW had invested and had a strong insurgent presence. However, neither had the kind of protracted violence that had made the original research sites inaccessible.

In fact, the security situation was particularly acute in Nangarhar in June 2014 during Phase 1 of the fieldwork when the second round of the Presidential election was being conducted. In the run up to election-day, the ANSF established vehicle checkpoints on the main roads into and within the southern districts, some of which would then be attacked by insurgent groups. As all the researchers were from the areas in which they were conducting fieldwork, access was not prevented but fieldwork could be time consuming due to the presence of both government and insurgent checkpoints, as well as the need to repeatedly review the security situation, and even travel with local contacts. The challenges of conducting research in insecure and contested space was repeated during the second phase of the research sites in Shinwar, Mohmand Dara and upper Surkhrud. These are areas where both ANSF and

insurgent groups were particularly active and where researchers had to be especially careful not to raise suspicions.

Insecurity also prevented recruiting and then deploying female researchers in many of the research sites, including all of the areas selected in the Spinghar piedmont. While interviews could be conducted by female researchers in the selected research sites in Kama, Behsud, Darre Noor and Surkhrud, insecurity made it impossible to cover the other districts of Nangarhar. Even in RS 9, in upper Surkhrud, it became necessary to curtail the fieldwork due to the female researcher's concern over her security and the attention her presence generated in an area where there was increasing insurgent penetration, highlighted by the establishment of a Taliban checkpoint on the main road as soon as dusk fell.²³

Throughout the fieldwork researchers had to be discreet. Apart from female respondents, individual farmers were interviewed at work in their fields where there are no bystanders and an outsider's presence would not be as conspicuous. Notes were not taken during interviews but were written up after the fieldworker and respondent parted company. While this approach presents some challenges with regard to recall or memory bias, such risks are reduced by the high level of experience of the fieldworkers. The less formal and more conversational style of the interviews also reduced the potential for social desirability bias²⁴ that has been shown to affect the results of more quantitative techniques such as polling in chronically insecure areas.²⁵ Women had to be interviewed within the household once access had been gained by a male interlocutor. This made the interviews more formal and raised the profile of the research and the researchers.

Ultimately, the research does not claim to cover offer a representative sample of households or communities in Nangarhar according to rigorous statistical requirements, as this is unattainable in the current environment. Instead, it draws on household livelihood trajectories and geospatial data and on data collected over an extended period of time in a number of specific and quite different locations. By merging such detailed and historical household data with geospatial data across such diverse areas, it is hoped that this research will produce what R. Yin has referred to as 'analytic generalisation'²⁶ - offering findings that are relevant to other parts of Nangarhar and rural Afghanistan.

²³ Despite the proximity of RS 9 to Jalalabad farmers reported a heavy insurgent presence. Farmers claimed that even in this areas the ANP do not leave their checkpoints and that the district governor no longer comes to the village. During the course of the fieldwork, on the night of 9 September 2014, insurgents attacked an ANP checkpoint at Charkala, between Kheyderabad (RS9) and Khoshak. It was claimed that two ANP were killed, a further three taken hostage, and the heavy weaponry was taken. Although it was claimed at the time of the fieldwork that NGOs can still work in the area at the request of the population, and the insurgents are taking a pragmatic line on the delivery of development assistance, those who live in the village and work in the public sector are said to be particularly nervous about the extent of Taliban presence in the area.

²⁴ The tendency of respondents to reply in a manner that will be viewed favorably by others.

²⁵ DFID Afghanistan, "Data Quality Assessment of the Asia Foundation Surveys of the Afghan People, 2006-2009" (Unpublished report, September 2010).

²⁶ R. Yin, *Case Study Research: Design and Methods* (London: Sage, 1994), 31.

3. BUILDING RESILIENCE TO THE OPIUM BAN AND IDEA-NEW'S CONTRIBUTION

3.1 Background

Nangarhar province has long been an economic hub of the eastern region. Throughout the 1980s and 1990s Nangarhar province was one of the major recipients of development assistance from aid agencies located across the border in Peshawar, Pakistan. Peshawar still dominates the province economically with considerable amounts of trade between Afghanistan and Pakistan passing through the official border crossing at Torkham situated forty five kilometres from Peshawar and around sixty kilometres from Jalalabad, as well as through a variety of unofficial border crossings throughout the province. In fact the Pakistani Rupee (PR) remains the main currency used in the province. The province's role as an economic hub as well as transit route for goods to and from Pakistan is reflected in the fact that in 2008/09 the province officially earned \$66 million in taxes from imports and exports, second only to Herat, and as a whole generated US\$ 101 million in government revenue - one fifth of the central government's total revenue (GIROA Central Statistics Organisation, 2009: 228).

As a border province and a major transit route for North Atlantic Treaty Organisation (NATO) supplies to Afghanistan, Nangarhar has had a strategic significance to both Pakistan and the USG. Pakistan maintains both business and political interests in the Nangarhar. In 2008/09 Pakistan exported US\$ 489 million of goods to Afghanistan and received US\$ 264 million of imports. While Nangarhar was not the sole transit point for these goods 'Herat and Jalalabad....ha[d] become the main cities through which most of the external trade takes place' (GIROA, Central Statistics Organisation, 2009:203).

Since 2001 the United States government and in particular the US military has had a significant presence and interest in Nangarhar province. As early as August 2003 the US established a PRT in Nangarhar from where it coordinated the reconstruction and military effort in the province. The US made significant contributions to the province's infrastructure with a number of interventions aimed at penetrating the more remote border areas neighbouring Pakistan. The development effort in Nangarhar by the USG has been considerable and included US\$118 million between 2005 and 2009 for IDEA-NEW's predecessor – the Alternative Development Programme – East. Further development projects include the USAID funded Local Governance and Community Development Programme (LGCD), Commercial Horticulture and Agricultural Marketing Program (CHAMP), as well as the Commanders Emergency Response Programme (CERP) financed by the Department of Defense. Finally, IDEA-NEW has invested US\$10.8 million in Nangarhar between 2009 and 2014.²⁷

Other donors have also been active in Nangarhar over the last decade. The European Union for example funded road reconstruction, work in the health sector and rural development efforts in the province, including a program aimed at reducing opium poppy cultivation between 2004 and 2009 – the Project

²⁷ This was up to 1 November 2014 as reported by IDEA-NEW.

for Alternative Livelihoods (PAL). A number of GIRoA's National Priority Programmes (NPPs) have also been implemented in Nangarhar, including the National Solidarity Programme (NSP) and the Micro Finance Investment Support Facility for Afghanistan (MISFA). In 2010, GIRoA also started implementation of the DFID funded Comprehensive Agriculture and Rural Development Facility (CARD-F), rolling it out in the districts of Kama, Surkhrud and Behsud. This is another project that sought to address the causes of opium poppy cultivation, designed in part to prevent a resurgence in opium poppy cultivation after the province had been declared poppy free in 2008.

It is against this backdrop of significant investment in security, governance and rural development that this evaluation takes place. It is also within this environment that there has been a dramatic increase in the level of opium poppy cultivation and a deterioration in the security situation since IDEA- NEW began in 2009. In the first part of this section of the report the discussion focuses on the resurgence of opium poppy cultivation in Nangarhar, its changing geographic focus, and considers how burgeoning levels of opium production relates to the worsening security situation. In the second section the return of opium poppy and growing insecurity are examined in relation to the particular resource endowments of different population groups within the province, the development investments that have been made across the different research sites, including by IDEA-NEW, and considers what impact the variety of projects implemented have had on the livelihood portfolio of rural populations. In doing so the evaluation examines how these development investments have impacted on household resilience to the opium ban that was effectively imposed between 2008 and 2010, and how these interventions might have subsequently supported a return to opium production now that the Afghan state no longer has access to the means of violence to prohibit opium production.

3.2 The Breaking of the Model: Resurgence in Nangarhar

Since 2004 Nangarhar has been a focal point for counternarcotics efforts in Afghanistan. In part this has been a function of the significant investment the US and other donors have made in the province, and the way that reductions in opium poppy cultivation became so intimately tied with the perceived success of the statebuilding project, particularly where PRT's were led by western nations that viewed counternarcotics as a priority. It is notable that the most successful prohibition imposed in Nangarhar 2008 by the then Governor, Gul Aga Shirzai -and led to the province being declared 'poppy-free' for the first time in its history - was imposed at a time when there was a significant uptick in the counterinsurgency efforts in the province and the deployment of increased number of US forces on the ground, particularly in the southern districts bordering Pakistan. The reductions achieved and the fact that negligible levels of cultivation were maintained for almost three years led to the province being labelled a 'model' for counternarcotics and calls for the approach to be emulated elsewhere.

However, the level of opium poppy cultivation has changed dramatically in the five years that IDEA-NEW has been in operation. In 2009 when IDEA-NEW began there was only a residual amount of opium

poppy cultivation in some of the most remote parts of the province (see Figure 6). But the ban began to show signs of fragility in 2010 when small amounts of opium poppy began to reappear in the upper parts of the southern districts of Nangarhar. Since 2010 cultivation has risen dramatically and according to UNODC increased from 2,700 hectares in 2011, to 3,151, hectares in 2012 to 18,227 ha in 2014. Moreover, based on the fieldwork for this evaluation there is little reason to believe that cultivation will fall in 2015.

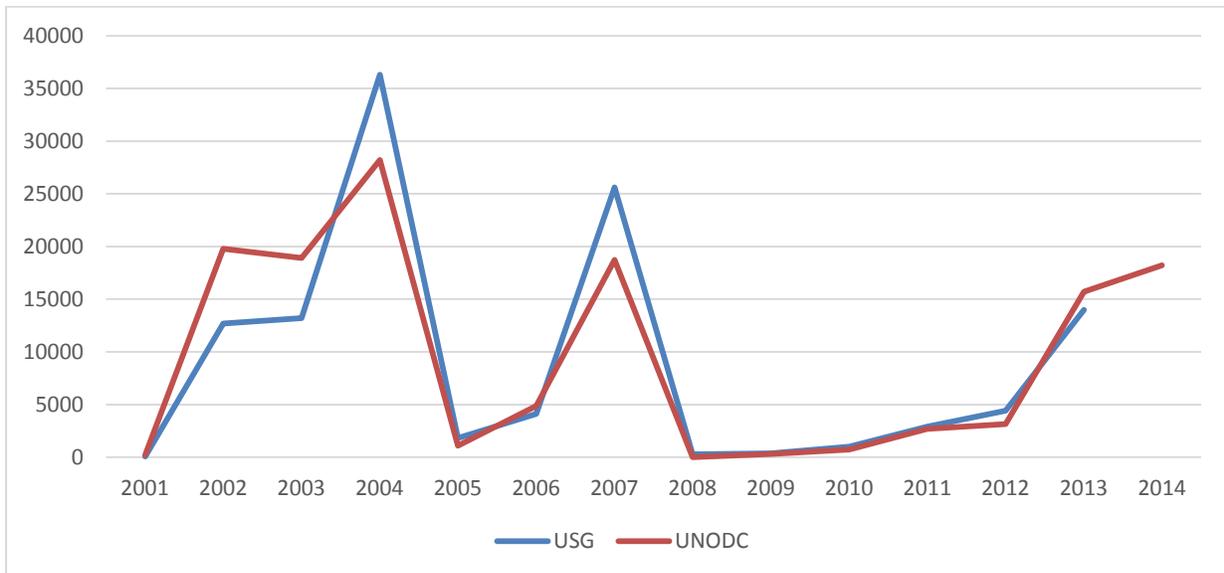


Figure 6: Opium poppy cultivation in Nangarhar, 2001-2014 (hectares)

Although there has been a dramatic rise in cultivation throughout Nangarhar, it is important to note that the bulk of the crop is still found in the southern districts (see Figure 7) of Achin, Chapahar, Khogiani, Sherzad and Pachir wa Agam and Kot. These are areas where the population has more limited resource endowments, where the Afghan state does not have a history of encapsulation and where access by state institutions is typically negotiated rather than coerced. As of the spring of 2014 there were still no signs of opium poppy cultivation in the areas irrigated directly by the Nangarhar canal, and for now opium poppy remains out of sight of the Torkham- Jalalabad road.

Initial signs of the resurgence of opium poppy began in the southern district of Sherzad in 2010, and in neighboring Khogiani district, although at that time the crop was limited to the upper valleys. However the collapse of the opium ban quickly gathered apace. By 2011 the Afghan state could no longer successfully project the appearance of state power into these areas or a number of other southern districts as it had in 2008 and 2009. The reemergence of opium poppy in Sherzad, the violent reaction to the government's eradication effort in April 2010 and the loss of life the ANSF experienced, along with the provincial authorities inability to resolve a land conflict in Achin, all contributed to the growing perception of the rural population that the Afghan state could no longer maintain the security of the

population or impose a ban in the Spinghar piedmont.²⁸ At this stage the resurgence in opium poppy was more a sign of rural defiance and displeasure at the performance of the Governor and the provincial authority and their inability to bring economic development to these areas.

By 2012 the provincial authorities faced armed resistance to their efforts to ban opium poppy. Although much of the eradication campaign in the spring of that year concentrated its effort in the Kabul river valley and lower valleys of the southern districts, and did little crop destruction in the upper valleys where the crop was concentrated, a total of 48 people were killed, including nine Afghan National Police (ANP), and only 748 hectares of opium poppy destroyed (see Figure 8).

The violent reaction was such that by 2013 the authorities had all but abandoned eradication, destroying only 157 hectares by the end of the season (Figure 9). The political environment had changed. The Governor was viewed as a spent force who no longer had the confidence of either Kabul or US military forces. The political settlement with the former jihadi commanders and their scions who make up the provincial political elite, had also run its course, damaged by disputes over the division of rents on customs duties at the Torkham border crossing and contracts for reconstruction and development, as well as the appointment of government posts. The rural elite in the southern districts, who had been so instrumental in the successful imposition of the ban, found themselves increasingly isolated and were unwilling to support any government initiative to prevent opium poppy cultivation due to their dwindling capital with the rural population. It was also clear that there was little appetite in the ANSF for the kind of fighting that the authorities had faced during the eradication campaign in Nangarhar in 2012.

Moreover, by the spring of 2013 the authorities faced increased levels of planting across a much wider area within the southern districts and therefore the risk of even greater collective action and resistance from rural communities. The rural population viewed the authorities' statements threatening crop destruction in the 2012/13 growing season within the context of the limited 2012 eradication campaign, and the perception that the state could no longer conduct a comprehensive campaign. The limited nature of the 2011/12 eradication campaign in the upper and lower parts of Achin and Khogiani, and in particular the degree of resistance in lower Khogiani in the spring of 2012, reassured many farmers in these areas that they would not face crop losses in 2013 and gave them the confidence to plant. The rural elite were increasingly silent on the issue of opium poppy cultivation, sometimes declining to attend meetings with the district authorities during the pre-planting campaign, or when they did failing to promote the counternarcotics messages; wary of being seen as doing the work of the government by an increasingly hostile rural population and an insurgency that was gaining considerable amount of ground in the province

The realisation by the ANSF that they did not have the coercive power to either compel the population to desist from planting in districts like Achin and Khogiani, or mount a meaningful eradication campaign

²⁸ Mansfield, D. (2013) All Bets are Off!: Prospects for (B)reaching Agreements and Drug control in Helmand and Nangarhar in the run up to Transition. Report for AREU, January 2013; pages 39-41

led to a more negotiated eradication effort in contested areas during the 2012/13 opium growing season. Counterinsurgency priorities also rose to the fore leading to the Afghan National Army adopting a far more pragmatic approach to opium poppy cultivation in its attempt to gain the cooperation of the rural population.²⁹ The population's awareness of both the limited outreach of the Afghan state and the ANSF's unwillingness to engage in the kind of protracted fighting that might be needed to secure the rural areas of districts such as Khogiani, Achin, and Sherzad, as well as lower districts such as Chapahar, led to opium poppy moving further down the valleys and a significant expansion in the 2013 crop.

The same pattern of events was repeated in the 2013/14 growing season. In the fall of 2013 priority for GIRoA, and indeed western donors, was a successful presidential election. Achieving this goal required securing the roads and highways into the southern districts of Nangarhar. This required the acquiescence of the local population given a combination of the history of the state's limited writ in these areas and the reduced presence of US military forces. Unable to secure even the main roads without the support of the rural population, particularly in a district like Khogiani - an area of intense fighting in the summer of 2013 - the ANA were once again compelled to negotiate with the rural population and agree to restrict their mission to counterinsurgency.

By the end of the poppy season in 2014 only 34 hectares of opium poppy destroyed and the extensive opium poppy cultivation could be seen across the southern districts. There were even signs of low levels of cultivation in the district of Surkhrud for the first time since 2004, all be it limited to a number of villages straddling Tor Ghar mountain in the upper part of the district. This pattern of small scale cultivation in more insecure areas was seen in other districts that had previously been poppy free, so much so that UNODC reported that only 8 of the 22 districts of Nangarhar had no poppy at all in 2014 compared to 12 districts in 2013 and 16 in 2009 when IDEA-NEW began.

The return to widespread opium poppy cultivation in Nangarhar and its geographic focus is indicative of the uneven nature of state power in rural Afghanistan and symptomatic of the government's inability to concentrate the means of violence in the southern districts bordering Pakistan. In the Kabul river basin, where there is a history of taxation and conscription, where more hierarchical social structures dominate the rural areas, and where the economic and political interests of the local elite and the state often coincide, there is a continuation of the opium ban first imposed in the 2007/08 growing season. However, the ANSF has been unable to continue the ban without US military support in those areas where there is no history of state control, where social structures are more egalitarian, and where the local elite is more accountable to the rural population. These are the areas of Nangarhar where the insurgency has gained increasing political support and consolidated its military position over the last few years.

However, the worsening security situation in these areas and the state's inability to impose a ban on opium poppy cultivation also has to be viewed in the context of the dominant role that opium poppy has

²⁹ See David Mansfield (2014) *From Bad they Made it Worse: The concentration of opium poppy in areas of conflict in the provinces of Helmand and Nangarhar*, AREU: Kabul. p 27-31.

played in the local economy of the southern districts and potential alternatives. Leveraging a ban on opium production in the kind of economic and political terrain that characterizes the southern districts of Nangarhar requires coercion but it also needs the support of elements of the rural elite and the acquiescence of the rural population.

The imposition of previous bans on opium production in the southern districts of Nangarhar, even under the Taliban, have been imposed through a combination of threats, deals with rural elites, and promises of future development assistance to rural communities. These past efforts have used violence but often only strategically, eradicating the crop just after the planting season in locations where the rural elite has already sided with the ban, and where the act of crop destruction against a limited number of recalcitrant farmers is designed to have a maximum effect on deterring farmers in neighboring or lower valleys from further planting.

Promises of increased levels of development assistance and the prospect of a better quality of life have been critical to these previous attempt to prohibit opium production, including the ban imposed by Gul Aga Sherzai in 2008, and have been instrumental in reducing the threat of widespread rural resistance. As such there is a balance to be struck between the degree of coercion, or the threat of it, required, on one hand, and continued development assistance and improvements in the rural population's welfare, on the other. At its crudest level, in the absence of development assistance and a viable alternative to opium poppy greater coercion will be required to sustain a ban on opium production. The next part of this section takes a closer look at how resilient livelihoods are to a ban on opium production across the different research sites in Nangarhar, how IDEA-NEW contributed to building resilience (or not), and therefore how it has contributed to reducing opium poppy cultivation (or not) in Nangarhar.

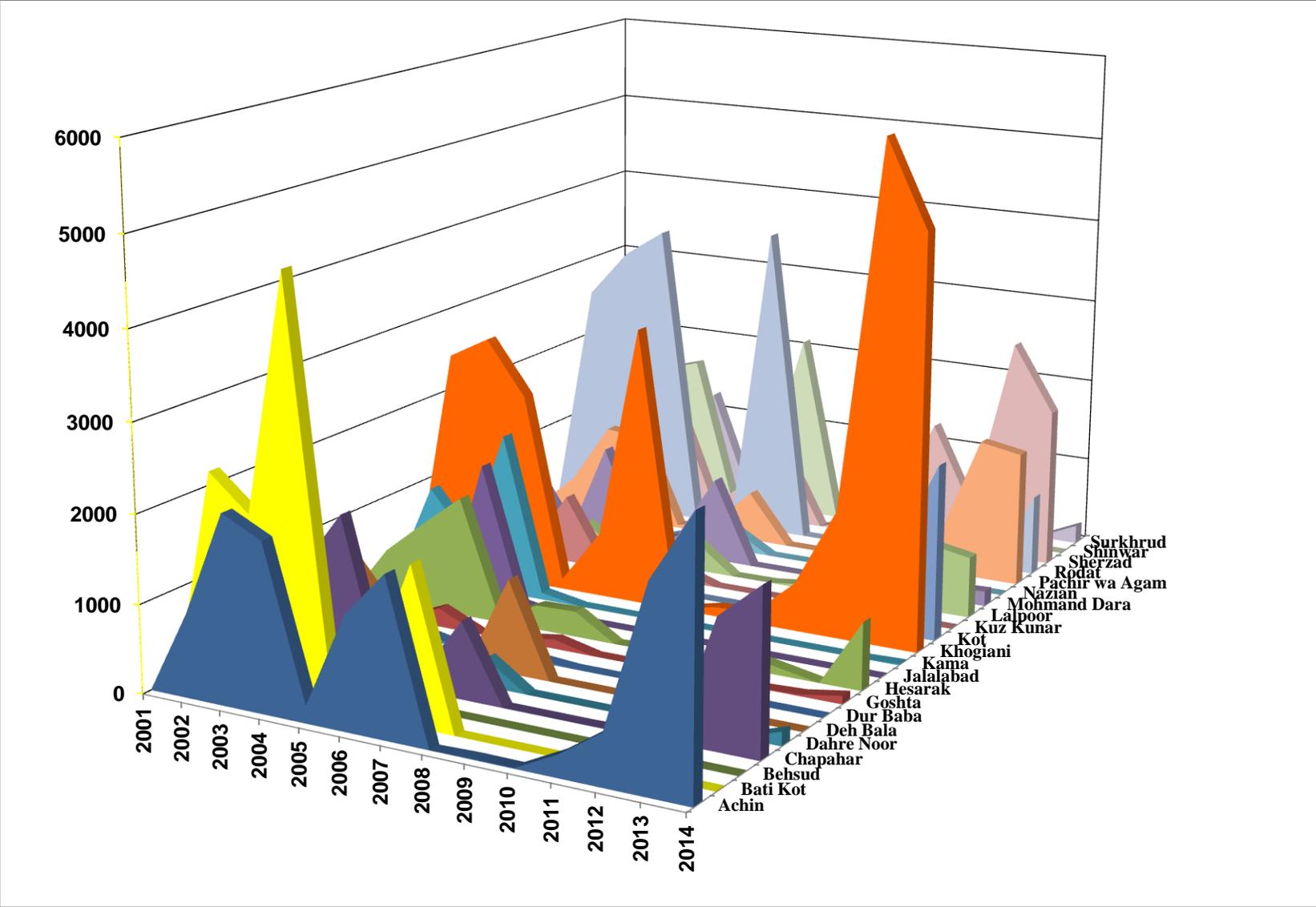


Figure 7: Opium poppy cultivation in the districts of Nangarhar, 2001 to 2014 (hectares)

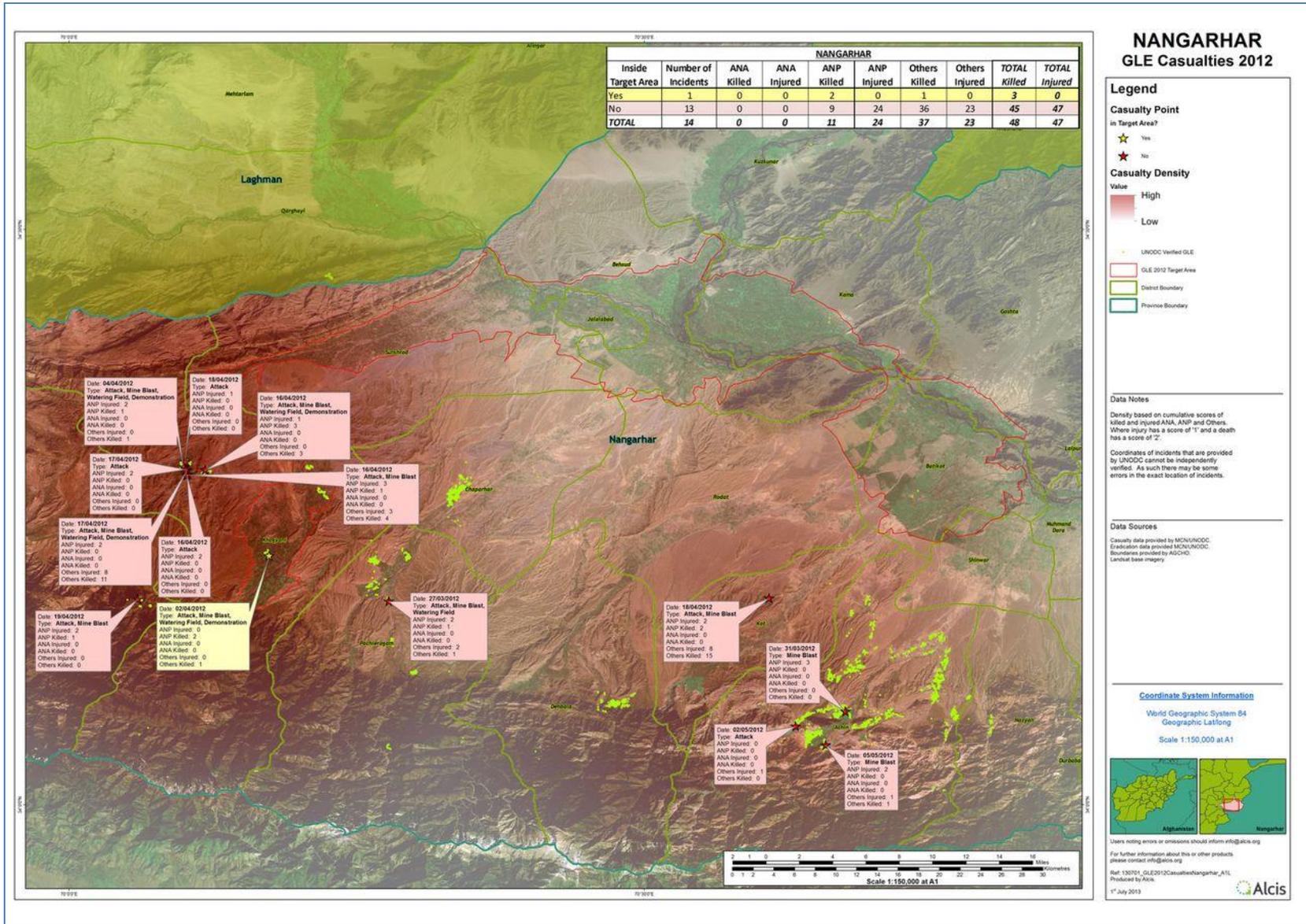


Figure 8: Injuries and casualties during eradication in Nangarhar in 2012

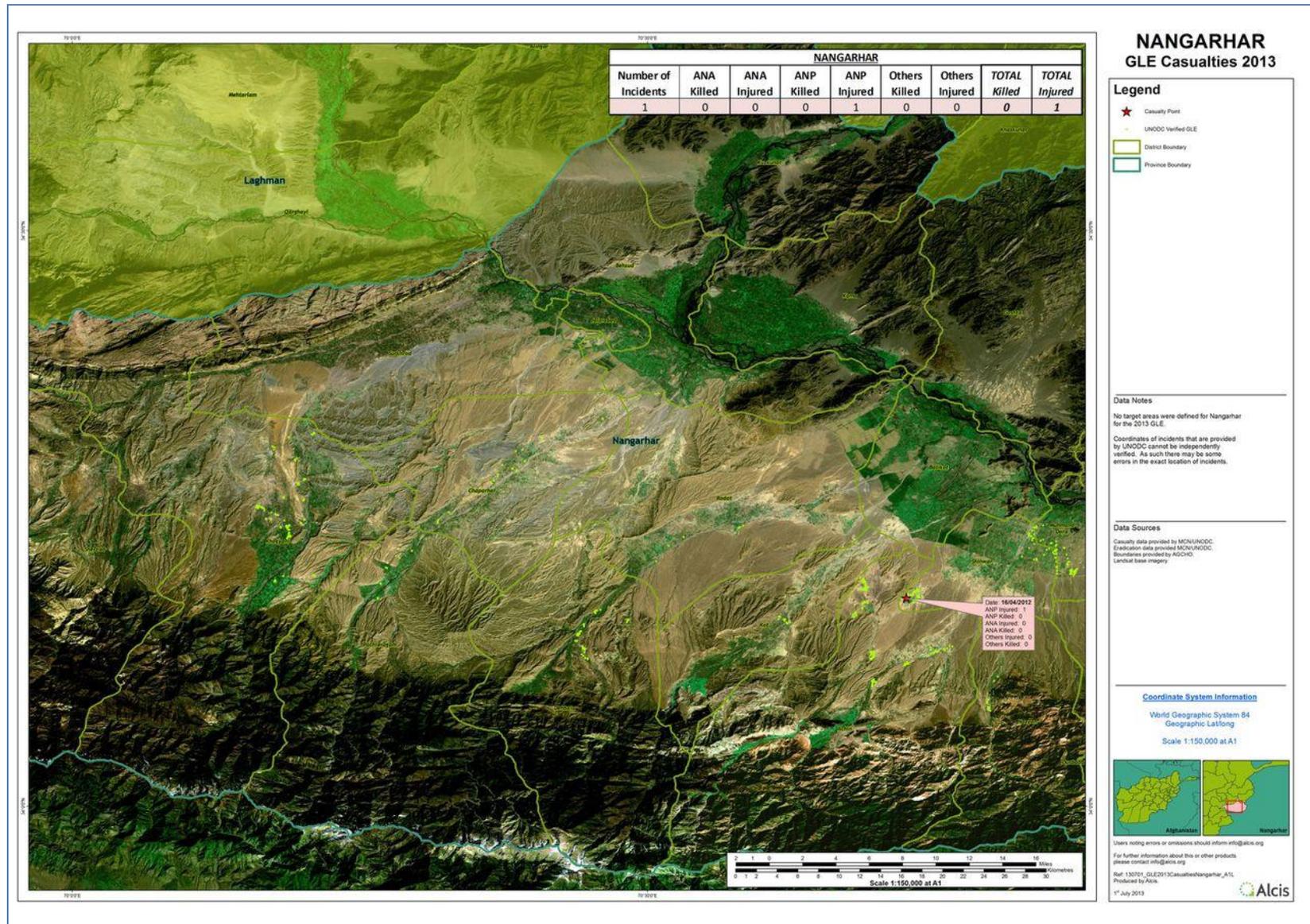


Figure 9: Injuries and casualties during eradication in Nangarhar in 2013

3.3. Variance in Livelihood Resilience across Nangarhar

Experience shows that households' responses to the efforts of the government and international community to deter opium production will vary by location and socio-economic group. Responses typically vary by the capabilities and assets that households can draw upon as well as the other shocks that households and communities are exposed to (Mansfield et al 2011). Some livelihoods are resilient to shocks, and households can abandon opium poppy cultivation and experience little immediate loss to welfare by drawing on and further investing in a number of different livelihood options. These households tend to be located in areas better endowed with natural resources, most importantly irrigated land, and are in close proximity to the labor and agricultural markets of regional economic hubs. They can also take advantage of their privileged access to a range of public goods including education and health services, as well as other forms of development assistance that are available.

Other households respond to a ban on opium production and other shocks by adopting coping strategies that reflect high levels of economic stress and will harm their future earning capacity. Livelihood responses include curtailing the frequency and quality of food consumed, postponing health related expenditure, selling long term productive assets such as livestock and land, removing children from school and seeking hazardous forms of employment (Mansfield et al 2011). These households are typically located in remote areas that are vulnerable to a range of different shocks including the effects of drought and conflict, which can often occur simultaneously. Households in these areas are typically land poor, have few non-farm income opportunities, and experience high transportation and transaction costs that deter licit cash crop production. These are the areas in which households are the most reliant on opium production and typically cultivate the crop as a way of better managing the repeated and concurrent risks that they are exposed to.

Livelihood diversification is the primary way in which rural households accumulate assets and manage risks. This includes on-farm diversity - the maintenance or expansion of a spread of crop and livestock production activities - as well as employment in the non-farm sector (Ellis 2000). Diversification can give households the flexibility to respond to risks as they materialize. While some households may diversify their livelihoods proactively as a way of building resilience to future hazards, others may diversify as a coping strategy after a shock has occurred. Access to public goods, such as health and education, as well as social protection mechanisms, also helps build resilience and cushion the impact of asset depleting risks.

It is the purpose of this section to distinguish between areas in Nangarhar in which livelihoods are resilient and in which diversification is a strategy for accumulating assets, and areas where households are adopting coping strategies (including livelihood diversification) that undermine their future earning capacity and expose household members to greater risks (Marschke and Berkes 2006). To achieve its aim this section will use data collected from the twenty research sites in Nangarhar drawing on fieldwork and remote sensing data some of which date back to 2007. The data from remote sensing will be used to examine the degree of crop diversification in the different sites and how this has changed

over the period of IDEA-NEW and the effective prohibition imposed by Gul Aga Shirzai. The results of fieldwork conducted in June and September 2014, and previous rounds of fieldwork conducted in the province since May 2005 will be used to develop a more detailed picture of the extent of crop diversification in the different research sites, as well as to investigate diversification into the non-farm sector and the nature of employment. Finally, data from household interviews will be used to explore access to public goods and social protection mechanisms and how this varies across the different research sites.

To help structure the rest of the paper, as well as to identify the most salient themes concerning livelihood resilience and the contribution IDEA-NEW has made to reductions in opium poppy, the twenty research sites in Nangarhar are classified into two distinct zones. The first zone consists of those research sites, primarily located in the Kabul river valley, where there has not been a return to opium poppy. Both public and private investment are concentrated in this zone and the rural population in most of the research sites have seen an improvement in welfare and livelihood opportunities over the last decade. They are areas where there has typically been a dramatic shift in cropping patterns, with the uptake of a wide range of both winter and summer crops. Non-farm income opportunities have also been readily available within the local area, or in Jalalabad and Kabul - both of which have become much easier to travel to with the asphaltting of the major roads. However, within this broad collection of research sites where opium poppy is not grown there are a few areas on the periphery, as well as more vulnerable population groups, that have not experienced the improvements in welfare that others have. It is these areas where there is a real risk of a return to opium poppy cultivation in 2015.

The second zone is the southern districts in which opium poppy has returned since 2010. This is an area that has small landholdings and has historically been heavily dependent on opium production. It is also an area where the population has experienced dramatic shifts in cropping patterns, income and livelihood resilience over the course of IDEA-NEW. Development investments in these southern districts have played a critical role supporting improved access to public goods and services and facilitating both crop and income diversification during the years that an effective ban on opium poppy was imposed. However, despite increased aid flows and some of the development outcomes that were achieved, particularly in areas such as health and education, the rural population showed increasing signs of economic distress in the absence of opium production. Low income and food insecurity led to coping strategies that undermined future earning capacity and exposed family members to hazards. Now that widespread cultivation has returned there are signs of increasing livelihood resilience, including improvements in food, investments in licit income streams, and families supplementing public health and education provision with private courses and university.

The rest of this section will discuss both of these zones in turn and examine the resilience of livelihoods in each, as well as the contribution IDEA-NEW has made to reducing opium poppy cultivation or at least slowing down its return.

Zone 1: Sustained Reductions in the Lower lying areas

Zone 1 consists of a broad range of research sites where opium poppy was not cultivated even in the 2014 growing season. There are a number of research sites in this Zone that show far higher levels of crop diversification and access to non-farm income than others. These are located in the most fertile well irrigated areas of lower Surkhrud, Kama, Behsud where there have been significant development investments in physical and social infrastructure, as well as expanding income earning opportunities and livelihood resilience to a ban on opium poppy. On the other hand, there are other research sites in this zone where crop diversification has been more limited, constrained by problems with irrigation. These are on the periphery where territorial control is increasingly contested by an insurgency that is gaining in strength and influence. In these particular sites, there are signs of economic stress and the conditions are such that there is a real risk of a return to opium poppy cultivation in 2015. Government coercion may be able to maintain an effective ban on opium production but without efforts to build livelihood resilience it could act as a stimulus to increased support for the insurgency in areas that are only 20 km from Jalalabad.

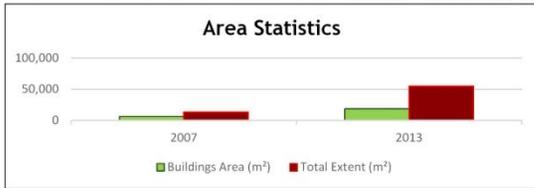
Livelihood Diversification

Even with the dramatic uptick in cultivation in 2007, and more recently in 2014, the population in the lower-lying districts along the Kabul river have not returned to widespread opium poppy cultivation, most notably the districts of Behsud, Surkhrud and Kama, but also the lower parts of Shinwar, Rodat and Bati Kot. These are typically well-irrigated areas with good access to the agricultural commodity and labor markets in Jalalabad and Kabul.

Since 2005 these areas have changed dramatically, and many households have experienced a pronounced increase in income earning opportunities, despite the loss of opium production. The economic growth in this zone can be seen from the expanding footprint of the markets in the district centers of Kama and Surkhrud, as well as in Jani Khel and Markoh on the Torkham to Jalalabad road (see Figures 10 and 11, and Annex D). Jani Khel and Markoh have become focal points for the trade of vegetables produced in Shinwar and Bati Kot and have grown dramatically since 2007 when opium production dominated these areas.

While the initial response to the ban in 2005 in these areas was often to replace opium poppy with a combination of wheat and another cash crop (such as onion in Surhkrud and green bean in Kama), many farmers have adapted to the growing demand from the rapidly expanding urban centers of Jalalabad and Kabul, and now cultivate a wide range of annual and perennial horticultural crops, cultivating as many as five crops on a single unit of land. Improvements in infrastructure, particularly the Kabul to Torkham road, have aided the movement of goods and allowed the rural population to take advantage of price differentials, and there are an increasing number of farmers selling licit crops directly in these markets rather than at the farm-gate.

IDEA NEW POPPY EVALUATION Jani Khel Bazaar, Bati Kot



Bati Kot	2007	2013
Buildings Area (m ²)	6,464	18,534
Total Extent (m ²)	13,356	54,963

Data Notes

Market boundaries interpreted from imagery by Alcis

Legend

- Building
- Market Extent

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - 1W, 2013 - World View 2

Coordinate System Information

Universal Transverse Mercator
World Geographic System 84
Zone 42S

Scale 1:2,500 at A1



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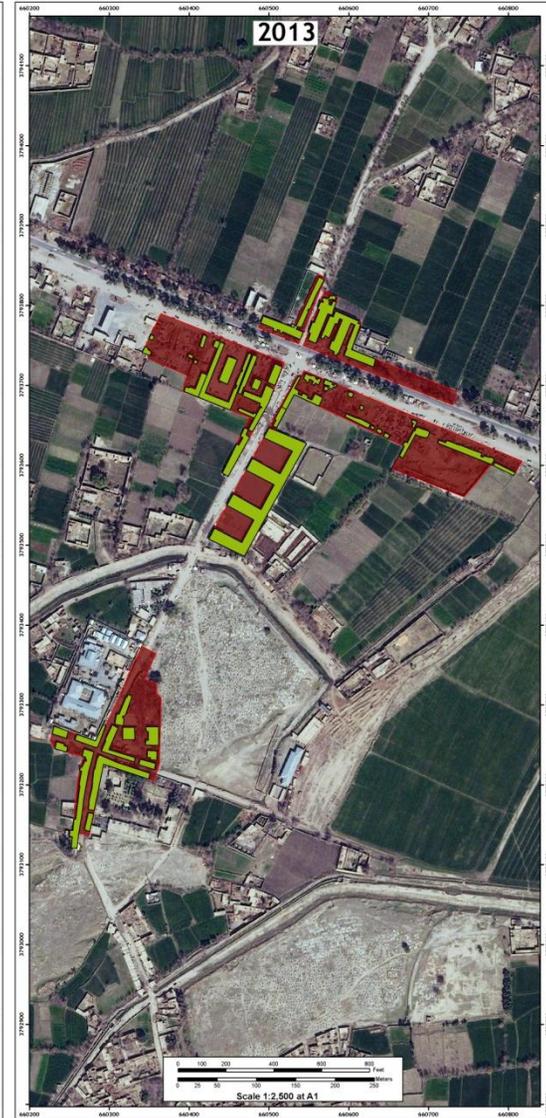
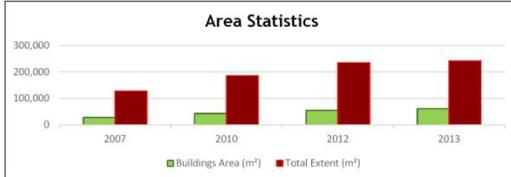


Figure 10: Growth of Jani Khel Bazaar, Bati Kot 2007 and 2013

IDEA NEW POPPY EVALUATION Markoh Bazaar, Shinwar



Image taken from helicopter sortie 26th June 2012



Shinwar	2007	2010	2012	2013
Buildings Area (m²)	28,333	42,845	55,386	61,374
Total Extent (m²)	127,853	186,506	235,902	242,717

Data Notes

Market boundaries interpreted from imagery by Alcis

Legend

- Building
- Market Extent

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TRK; 2010 - World View 1; 2012 - Buckeye;
2013 - World View 2

Coordinate System Information

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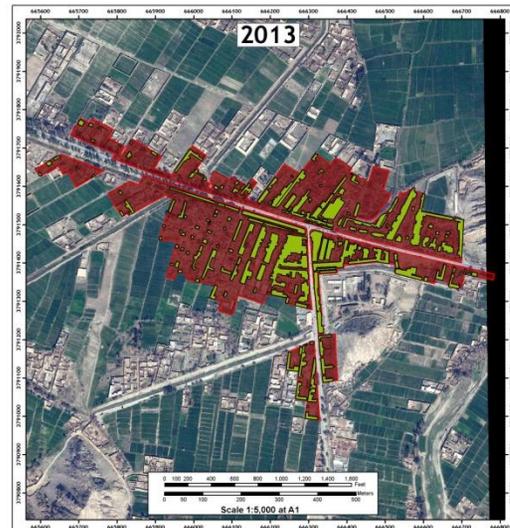
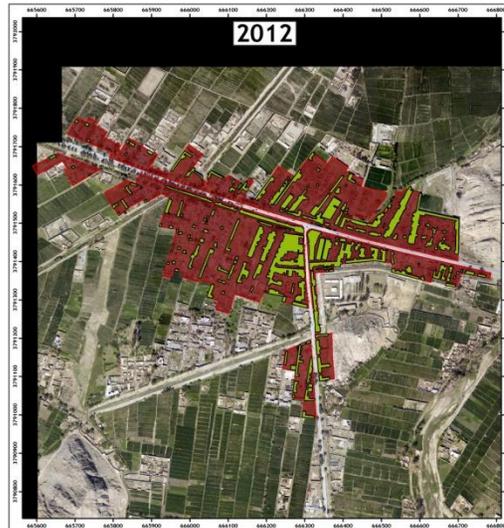
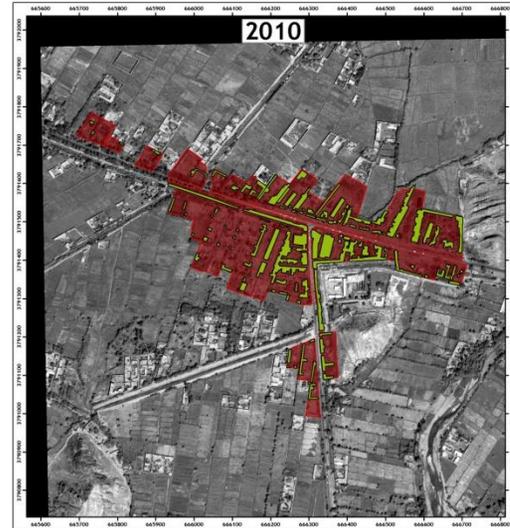


Figure 11: Growth of Markoh Bazaar, Shinwar, 2007-2013

Landholdings in these areas are not as acute as in the upper valleys. Amongst those interviewed the average amount of land cultivated in the winter months was 7.7 jeribs³⁰ compared to an average of only 3 jeribs in the southern districts of zone 2. Furthermore, as they are located in the main Kabul river valley, most of these research sites can cultivate all their land during the summer months, doubling, and in some cases, tripling, the amount of land available for agricultural production where short season crops are also cultivated. This stands in stark contrast to many of the research sites in the southern districts who do not have access to sufficient irrigation in the summer and have to leave some of their land fallow.

The uptake of high value horticulture is particularly impressive in these low lying areas (see Annex B). Farmers typically cultivate a wide range of annual horticultural crops that have been promoted by IDEA-NEW and other development programs operating in the area. Wheat still remains the dominant crop in many of the research sites but larger landholdings and better yields allow households to achieve self-sufficiency for the family and use any surplus land to produce a wide range of horticultural crops for sale.

A variety of different crops is commonplace across Zone 1. There is not the tendency towards uniformity in cropping patterns that can be seen in most of the research sites in the southern districts. Farmers in this zone have a greater tendency to experiment, they have better access to improved seeds and agricultural extension through a variety of different development programs and the private sector, and consequently have greater awareness of the different crops that it is possible to grow and their market potential. While farmers in the southern districts typically grow one, two or a maximum of three different crops during the winter months, in the lower lying areas of this zone wheat is typically accompanied by a growing number of crops including pepper (12,000 - 30,000 PR/jerib), squash (18,000 - 20,000 PR/jerib), tomato (25,000 -40,000 PR/jerib), eggplant (15,000 -25,000 PR/jerib), marrow (27,500 PR/jerib), onion (50,000-90,000 PR/jerib) potato (80,000 PR/jerib), taro (55,000 - 65,000 PR/jerib), pea (25,000 - 35,000 PR/jerib).

Moreover, it is not just in the winter season that farmers in this zone cultivate a wide range of different crops. Summer crops have also diversified, moving away from a farming system dominated by maize. In RS 17 for example the summer crops cultivated, include eggplant (40,000 PR/Jerib), tomato (20,000 PR/jerib), okra (32,500-70,000 PR/Jerib), soya bean (7,500 PR/jerib), torayee (10,500-24,000 PR/jerib), carrot (20,000-36,000 PR/jerib), turnip (22,000 PR/jerib), squash (12,500 PR/jerib), spinach (18,000-20,000 PR/Jerib) , pepper (22,000 PR/jerib), cauliflower (45,000 - 69,000 PR/jerib) and coriander (15,000 PR/jerib). Figure 12 shows the degree of crop diversification that has taken place in RS 17 in the summer between 2010 and 2012, supported by IDEA-NEW.

³⁰ A jerib is roughly one fifth of a hectare.

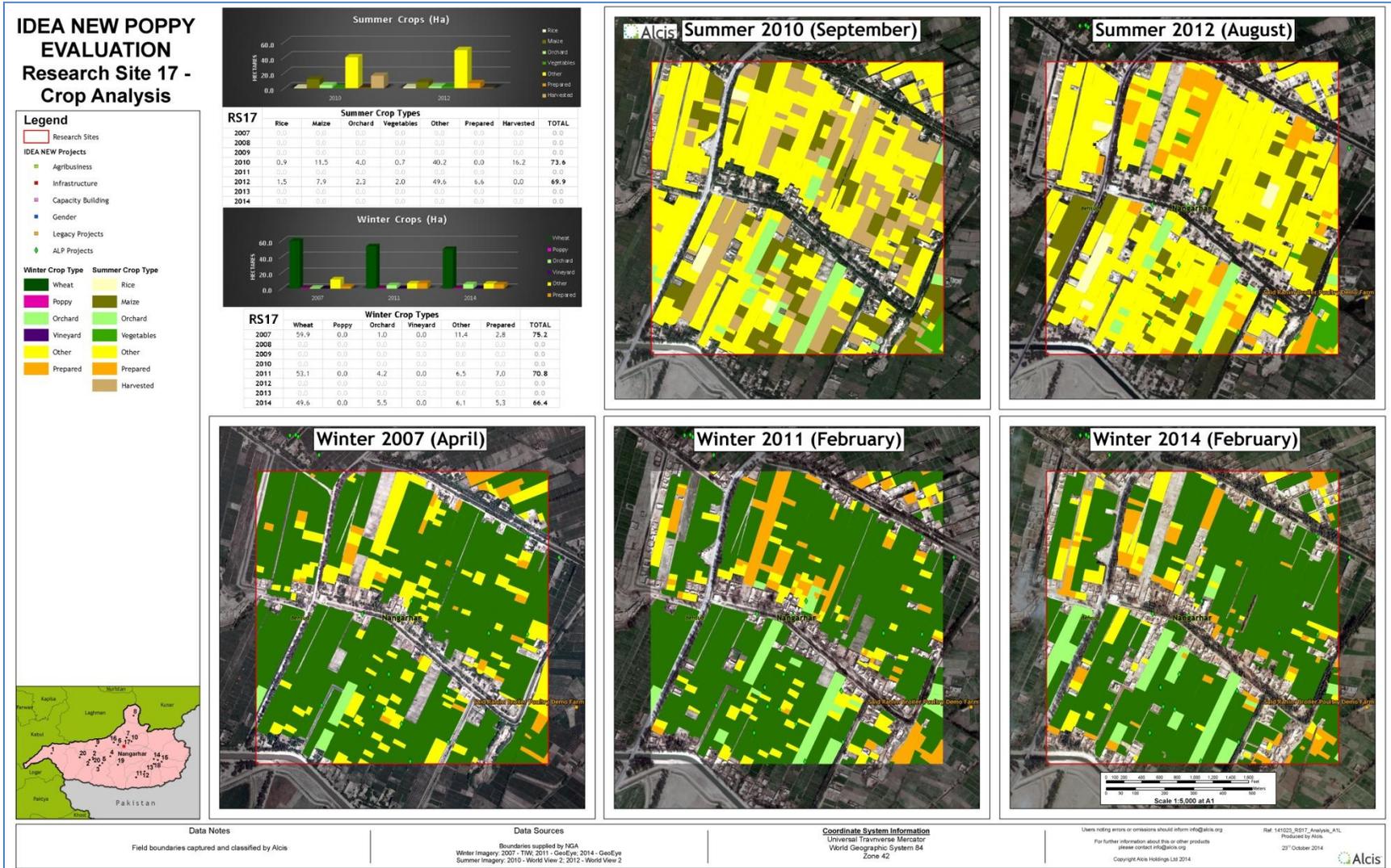


Figure 13: Limited crop diversification in the winter, but an expansion in high value horticulture during the summer in RS 17

Maize occupies less than 20 per cent of household land amongst respondents in RS 17 and yields of all these crops increased significantly following investments in the irrigation infrastructure. Moreover, crops such as tomato, torayee, eggplant, and cauliflower are no longer grown for one season of the year but are cultivated in both spring and summer in order to exploit the fluctuation in off season prices and maximize income. This was not the case before 2010. This pronounced pattern of crop diversification in both winter and summer seasons can also be seen in RS 7 and RS 10. In RS 10, rice (32,000 PR/jerib) is by far the most commonly grown crop and it occupies up to half the land cultivated during the summer months.

Perennial horticulture has also fared better in the lower lying areas. For example, imagery shows a significant uptake in the number of orchards in RS 7 and 10 without the fluctuations that can be seen in research sites in Zone 2 in the upper valleys (see Figure 13). There is some evidence of trees being cut, confirmed by the fieldwork,³¹ but it is not to the extent that can be found in the areas where households have returned to opium poppy cultivation. As opposed to the southern districts sales of fruit were reported in this zone including an individual who had received 70,000 PR/jerib for his apricot during the first year of production and another who had got 62,000 PR/jerib.

Off farm employment - working the land of other farmers - and non-farm employment also has greater traction in these lower lying areas valleys. Those interviewed in this zone are typically less reliant on the transport and trade sector, and enlisting in the ANSF when compared to the southern districts. In contrast to zone 2 there are also local employment opportunities, both off-farm and non-farm, which allows male household members to reside with the family rather than migrate in search of work. There also appears to be a greater breadth and scale to the development effort in the more accessible lower lying valleys of Nangarhar. Projects in this zone go beyond the kind of infrastructural focus found in the upper valleys required to gain physical access to these more remote areas. Respondents in each of the research sites report a large number of these kind of projects which have improved access to both physical and social infrastructure and led to significant reductions in travel times to markets, and education and health facilities. However, in the Kabul river valley there is also much greater emphasis on income generation with a large number of those interviewed reporting projects that provide agricultural inputs, such as orchards, seeds and fertilizer, as well as initiatives in poultry, fish farming, greenhouses and tailoring.

³¹ I got 180 apricot saplings from Relief International in 2008 but the quality was not good, they were dry. I received 1 shovel and 8Kg of DAP. We received one pair of secateurs for pruning for 4 farmers. The trees were bad quality. I replanted 80 trees with saplings that I bought from a private nursery for 180 PR each. I will get a yield from these trees this year. In total I got 40 seer of apricots from the 100 trees that were left. I sold only one seer for 150 PR because the local children take them all. I hope this year that I will have more fruit to sell and not just enough to eat. I will fire my pistol to scare the children away if they come to my garden. I want to build a wall to protect my trees from these children but I do not have enough money (RS 17, #8). In RS 13 a number of respondents reported receiving saplings and support for orchard development from DAI and ALP-East. It was widely reported that these trees were removed due to a water shortage that most farmers blame on a series of micro hydro projects established on the Nangarhar canal.

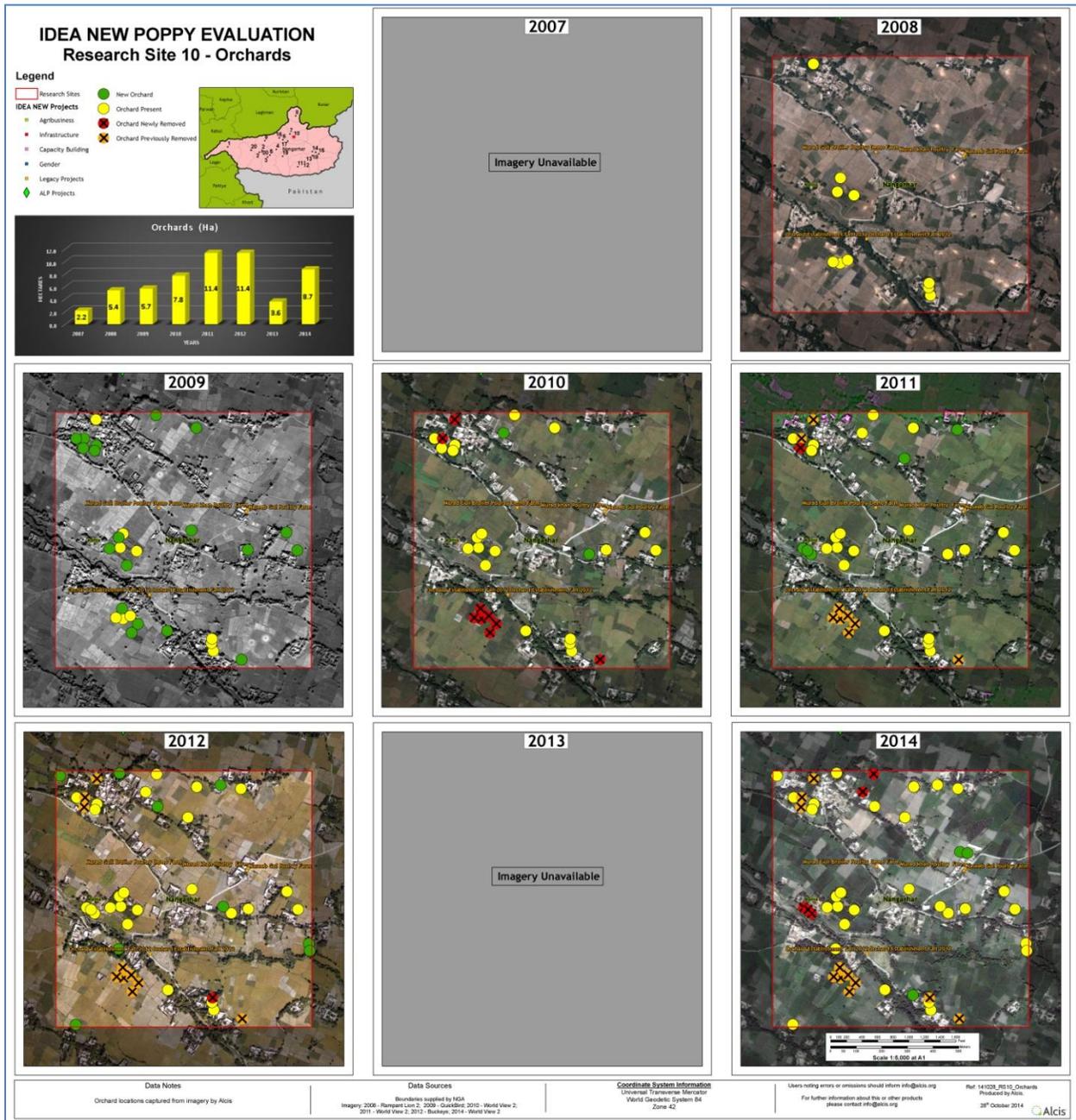


Figure 14: Orchard development in RS 10, 2007-2014

At the same time, as is the case with many projects in Afghanistan, there are also complaints about the way that the assistance is distributed. The common refrain is that the bulk of the assistance is appropriated by the local elite, their family and those within his patronage network. The tailoring projects are a case in point where the a majority of women interviewed were aware of this initiative but complained that even if they had received the training and a small amount of material,³² the malik kept the sewing machines for his own family or sold them in the bazaar.³³ Moreover, the project appeared to have limited effect on household incomes due to the cultural constraints on women working as commercial seamstresses.³⁴

This same complaint about the distribution of development assistance could be heard across the research sites with regard to a cross section of interventions, from orchards to poultry,³⁵ and there were calls for greater transparency and targeting of the poor.³⁶ Some projects were considered highly problematic and not to be repeated, for example the small scale chicken hatcheries funded by IDEA-NEW.

On the whole proximity to Jalalabad and the growing market centers along the main highway, such as Markoh and Jani Khel had improved access to a wide range of off-farm and non-farm income opportunities for those in Zone 1. These included jobs in trade, construction, and salaried employment in government offices in Jalalabad. The rural population in this area has become particularly adept at exploiting the wage differentials in Jalalabad and Kabul, which has resulted in significant labor migration to Kabul during the summer months. In fact, by abandoning opium poppy cultivation—an especially labor intensive crop—family members have been freed up to find work elsewhere. For households with a number of male members of working age, this led to a significant increase in household income, especially when combined with on-farm income from the kind of complex cropping systems that have emerged in the lower-lying areas.

³² 'All the machines went to the malik, I only got one piece of cloth' (RS 9, #F1)

³³ In RS9 it was reported that the malik had 7 sons and the training was dominated by their wives and his daughters. It is claimed that the machines were given to the women in the Maliks family and no one else received one.

³⁴ Only one of the women interviewed who had received training reported that she made clothes for others and received money in return (RS 9, #F2). With the money she purchased items for the family, such as stationary for the children. All the other women interviewed who had received training in tailoring reported making clothes for the household only. None of the male respondents reported that the women in their household were producing clothes commercially following training.

³⁵ In RS10 there were a series of complaints about the way that CARD-F was operating in the area and the malik's attempts to dominate not only who it is in the village that receives assistance but the Maliks involvement in the purchase of chickens under the scope of the project. This led to allegations of both favoritism and corruption that was becoming a point of conflict in the area at the time of fieldwork in September 2014.

³⁶ 'People request that when NGOS come to the area they should collect the mullah, other elders and they will sit and select those that need the assistance - the poor. Now only the malik and the NGO employee meet in the [malik's] guesthouse. The employee is given good food and a pillow and then the Malik receives everything and he doesn't distribute it to the people' (RS17, # 4)

However, there are signs of economic stagnation in 2014. At the time of fieldwork there were fewer wage labor opportunities in Jalalabad and evidence of falling wage labor rates. For example, in September 2014 respondents reported receiving only 350 PR per day for unskilled work where they had got 500 PR per day the year before. Those on the periphery of this zone are particularly vulnerable to a loss of off farm and non-farm income opportunities in Jalalabad and local market centers. For example in Kheyrrabad (RS9) crop diversification is constrained by the dry conditions. In the absence of opium production farmers shifted to wheat and over time have come to cultivate greater amounts of onion rather than move into a wider variety of crops that support livelihood resilience.

However, the fluctuation in onion prices and repeated incidences of disease, have left them vulnerable. In the summer almost half the land lies fallow (shown in the imagery as 'prepared') and cultivation is dominated by maize and small amounts of mung bean, peanut and cotton. The returns on these summer crops is insufficient to meet the income deficit caused by failure of the onion crop or reductions in market prices. Non-farm income opportunities offers the only respite but access is often a function of the household size and the number of male family members available to travel in search of work. Concerns over the insecurity in this area has hampered free movement and led to a reluctance to send male members of the household in search of work elsewhere. On top of this there are now fewer wage labor opportunities both in Sultunpur in Surkhrud and in Jalalabad.

A similar combination of increasing insecurity and limited on farm and non-farm income opportunities are beginning to take effect in the research sites in Shinwar and Mohmand. In RS 13 wheat still occupies over half of the agricultural land in the winter and maize occupies the same proportion of land in the summer months. RS 13 which straddles Ghani Khel bazaar, along with RS 14 are the only research sites in this zone to have returned to widespread opium poppy cultivation in 2007 (see Figure 14). There is evidence of crop diversification in both research sites since then but it remains limited. The signs of economic stress are particular acute amongst those who either lease or sharecrop their land or do not have a sufficient number of males able to find work outside the farm. Intimidation to compel those with family members in the ANSF to leave service or the area³⁷ is further increasing the economic difficulties in the area. The economic pressures are not so acute in RS 14 due to the proximity of Markoh bazaar and the prevalence of non-farm income opportunities amongst the population. While the population in both research sites have refrained from returning to opium poppy cultivation in 2014 there is a high risk of a return to opium poppy in RS13 in 2015.

³⁷ It is claimed that up to 60 per cent of those in RS 13 who were in the ANSF have now left, while 20 per cent have departed and now live in Jalalabad or with family elsewhere. A further 20 per cent of those in the ANSF from this research site are alleged not to visit the area, or only come at night when it is dark and do not leave their houses.



Figure 15: Cropping patterns in RS 14, Markoh in Shinwar

In contrast to the core of zone 1, in Behsud, Kama and lower Surkhrud,³⁸ there are already signs that the population on the periphery of this zone are looking to return to opium poppy cultivation. For example, in RS9 farmers are aware of the limits of state power³⁹ and are increasingly exposed to armed insurgents operating in the area.⁴⁰ An area bordering Khogiani with limited access to irrigation and therefore only a small proportion of agricultural land under cultivation during the summer months there is growing economic pressure to turn to opium production. There is little confidence that the current governor and the government can ensure either the physical and economic security of the population, and both male and female respondents are frank in their desire to return to opium production.⁴¹

Public goods and social protection

At the core of this lower lying area the population remains content with the government, even in the absence of opium poppy. The population in this area have been some of the primary beneficiaries of development assistance and have good access to both physical and social infrastructure. The NSP continues to operate alongside other national, bilateral and nongovernmental projects in the area. Furthermore, none of the population in these research sites live far from an asphalt road and most have access to year round irrigation. Meat and fruit are consumed regularly and there are signs of asset accumulation and growing livelihood resilience amongst those families that continue to draw on a combination of on farm, off farm and non-farm income.

In terms of the public good of security, the government typically maintains the dominant military position across much of zone 1. In RS 6, RS 7, RS 10, RS 16, and RS 17 the government's coercive capacity is such that there are no doubts that the ban on opium will continue and that the government will not allow farmers to grow. There are no complaints about the continuation of the ban and the rural population appears to accept, if not always welcome, the writ of the state.

³⁸ 'I am happy with the government . They keep security in the village. If security is good, the market will be better and life will be better' (RS 17, #3); 'Before the Taliban when everyone grew poppy the children were very busy in the field. Now they all go to school. I am happy from the wali' (RS 17, #F2).

³⁹ 'If the government continues to be this weak, security will be worse, and more people will grow poppy' (RS9, #1); 'The district governor does not come to the village and the police do not come out of their checkpoints even during the day. The government employees in the village are afraid of the Taliban. If the government situation is the same and continues to get worse each day, I will grow poppy next year' (RS9, #2).

⁴⁰ Respondents in RS 9 report that they make cash payments known locally as Komak, or 'gifts', to the Taliban in 2014. These payments do not exceed 2,000 PR for the year and were typically collected via the mullah at the local mosque. As in other parts of Nangarhar it is reported that a letter requesting contributions by the rural population is issued by Islamic Emirati complete with an official stamp. There is no indication of the amount to be paid by each household but there is understanding that the final sum is a function of what the individual household can afford - 'Khud ay was'. The mullah is charged with collecting the money and is not required to report how much each household contributed only who did not contribute at all and an explanation as to why. There are reports in other areas such as Mohmand Dara and Shinwar that the wealthy households, such as those involved in trading or own a gas station, are contacted directly by insurgents and asked for specific cash amounts, which can often be as high as 100,000 PR.

⁴¹ If the government allows the cultivation of poppy we will be happy. When we sell one seer of opium it is more money for the family (RS9, # F1).

With that said there are signs of predation and insecurity in parts of this zone. For example, many of those farmers who sell their crops directly in Jalalabad report rising transaction costs due to both the municipal and the traffic police in Jalalabad requesting inflated payments for those selling their vegetables and fruit in the bazaar.⁴²

Furthermore, resentment towards the government appears to be growing most amongst those who are feeling the effect of the economic downturn the most in this zone, the land poor and those on the periphery.⁴³ Security in RS 9, RS 13 and RS 14, RS 15 and RS 18 has taken a dramatic turn for the worse. For example, in RS 13 security has become particularly acute due to proximity to Ghani Khel and the regular attacks on the ANSF mounted by the Taliban. The deteriorating security situation is not just impacting on income earning opportunities but also access to public goods.

Health and education provision continue in these areas but the conflict between government forces and insurgents is creating an increasingly unpredictable environment which is making respondents uneasy about sending their children to school. For example, during the first round of the Presidential election a number of the schools in Shinwar and Mohmand Dara were used as polling stations. This led to the Taliban laying mines in the roads and complaints from the local population. It is claimed that during the second round the election was allowed to proceed and that the Taliban did not only not mine the roads but encouraged the rural population to vote for Ashraf Ghani in both Mohmand Dara and Shinwar.⁴⁴

Further problems arose in these same areas in September 2014. In fact on 11 September the Taliban announced that schools would be closed in Shinwar in response to the ban on motorbikes imposed by the government. The government ban followed a series of attacks on the ANSF - many of which involved assailants on motorbikes in Ghani Khel during Ramazan. In retaliation the Taliban announced the closure of schools in Shinwar, disseminating the message via the mosques and by contacting the principals of the 29 schools in the district.⁴⁵ However, on 12 September the Taliban called a meeting with teachers and principals and informed them that they had changed their position and they would allow the schools to remain open. It was said that the local Taliban commanders recognized how unpopular this position was with the local elders and the population and they did not want to lose their support in what is increasingly a frontline district in the fight with the government.

In sum, there is progress in both livelihood resilience and sustaining low levels of cultivation at the core of zone 1, but this is not uniform across the research sites. The ban on opium is beginning to further fray

⁴² 'If I want to bring [my crops] to the market the mayor department wants 10 PR per seer (7 kg) and the owner of the market also wants 10 PR per seer. If I bring [my crop] to the street in the city the traffic police wants 200 to 300 PR for the vehicle. The municipal police also wants 200-250 PR per vehicle. This is very difficult (RS 17, #4)

⁴³ All government officials are thieves. The new government should arrest them and make them prisoners in jail (RS 17, #4).

⁴⁴ This stands in stark contrast to the situation in the southern districts where insurgent groups were in a more dominant military position and the population was discouraged from voting with acts of violence in the run up to the election and on election-day itself.

⁴⁵ It is claimed that this is not unusual and that principals in other districts will be contacted by phone by local commanders.

at the edges of the Kabul river valley. These are areas where resource endowments are not as favorable and crop diversification has been hampered by a lack of irrigation. Growing insecurity is making matters worse, restricting the movement of both public and private goods and services, and furthering the image of a government that can no longer impose its will.⁴⁶ It remains to be seen whether opium poppy cultivation will return in 2015 but the likelihood would appear to be high.

Zone 2: The Poppy Growing Areas of Southern Nangarhar

Zone 2 is located in the southern districts of Nangarhar and consists of the research sites where opium poppy has returned following the collapse of the opium ban in 2010. It consists of nine research sites: RS 1, RS 2, RS 3, RS 4, RS 5, RS 11, RS 12, RS 20. While opium poppy was prohibited some crop diversification did take place, mainly during the summer months but it was often limited. Moreover, during the period in which the population were compelled to abandon opium production there was evidence of economic distress with reductions in the consumption in of meat and fruit; delays in seeking treatment for sick family members, even for serious conditions; and the sale of productive assets, such as livestock, motor vehicles (used as taxis) which impacted on the future earning capacity of households (Mansfield 2013; Mansfield 2014).⁴⁷ Now that the opium crop has returned there is continued crop diversification during the summer months, investments in licit income streams, improvements in access to health education and signs of asset accumulation.

Livelihood Diversification

The experience of the population in the research sites in the southern districts where opium poppy has returned stands in sharp contrast to those located in zone 1, in the main Kabul river valley and in close proximity to Jalalabad. It is in these southern districts areas that opium production returned in abundance in 2007, following the initial ban by the then Governor Haji Din Mohammed in 2005, and began to remerge once again in 2010 following the subsequent ban by Gul Aga Shirzai in 2008. By 2012 there was already significant levels of opium poppy cultivation in these areas, and by 2013 and 2014 the crop dominated the landscape during the winter season (See Figure 15 and 16).

These are all districts where opium poppy has been embedded in the political economy for the last three decades. Situated on the border with Pakistan these are areas where historically the relations between the state and rural communities are weak and government presence is limited. The districts where opium poppy has returned and concentrated are also areas where resource endowments and the geographic terrain are limiting factors. In particular, landholdings are small, rarely more than 5 jeribs per

⁴⁶ 'He is a mullah he is only for the Mosque not for Governor. He does not leave the palace' (RS 9, #1).

⁴⁷ For more recent accounts see Mansfield, D. (2014) From Bad they Made it Worse: The concentration of opium poppy in areas of conflict in the provinces of Helmand and Nangarhar, Report for AREU, May 2014 and Mansfield, D. (2013) All Bets are Off!: Prospects for (B)reaching Agreements and Drug control in Helmand and Nangarhar in the run up to Transition. Report for AREU, January 2013. For a more comprehensive coverage including the impact of the earlier ban in the 2004/2005 growing season and the resurgence in cultivation in 2007, see <http://www.areu.org.af/Publications.aspx?ContentId=7&ParentId=7&FirstAuthor=30>

household, and often much smaller, at only 1 to 3 jeribs. With the number of household members typically ranging from 8 to 12 people, of which almost half of the household is below 12 years of age, and less than quarter of the household are engaged in full time economic activity, circumstances dictate the need to maximize the economic returns on irrigable land, and where possible, supplement agricultural production with some kind of non-farm income.

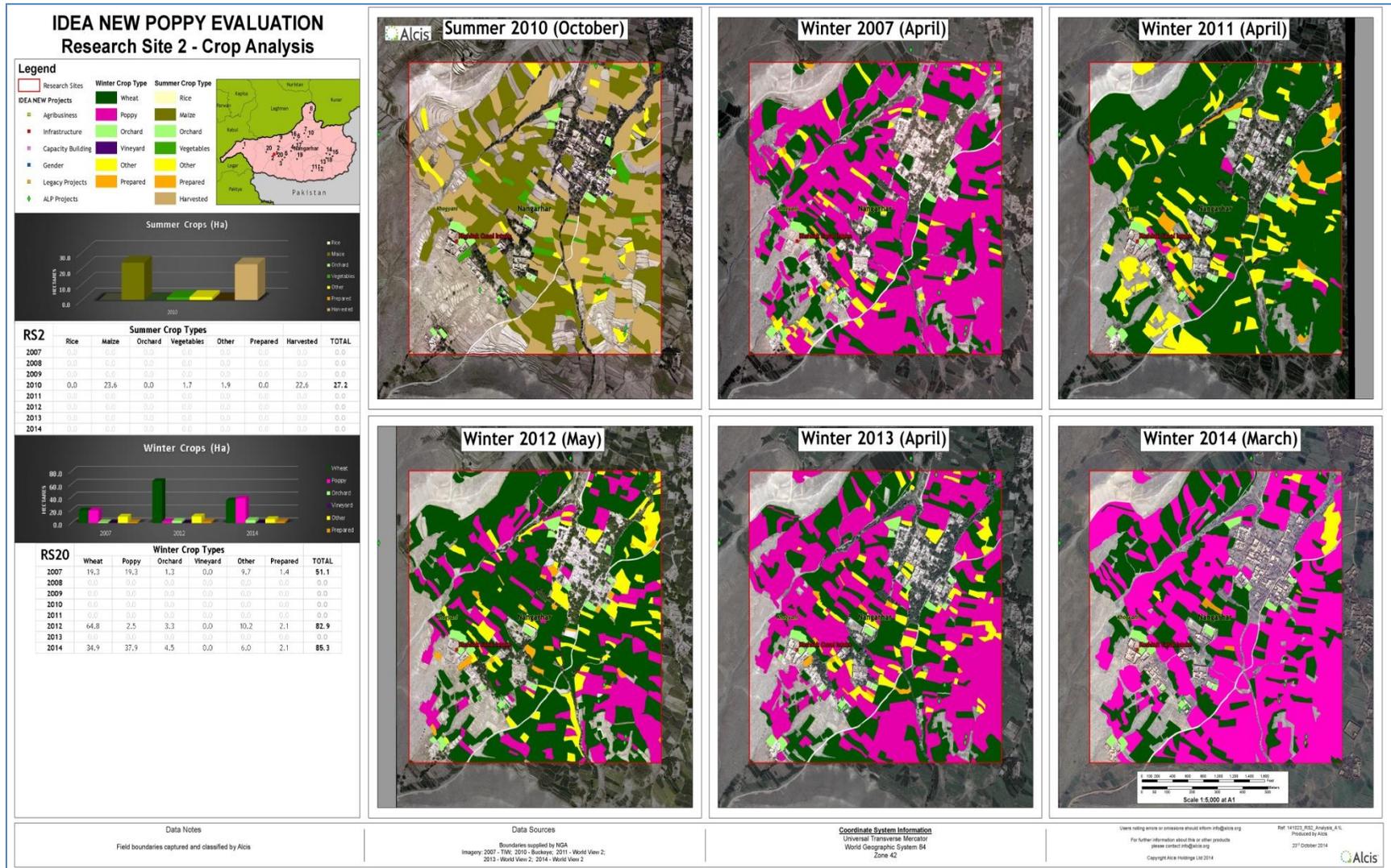


Figure 16: Cropping patterns in RS 2

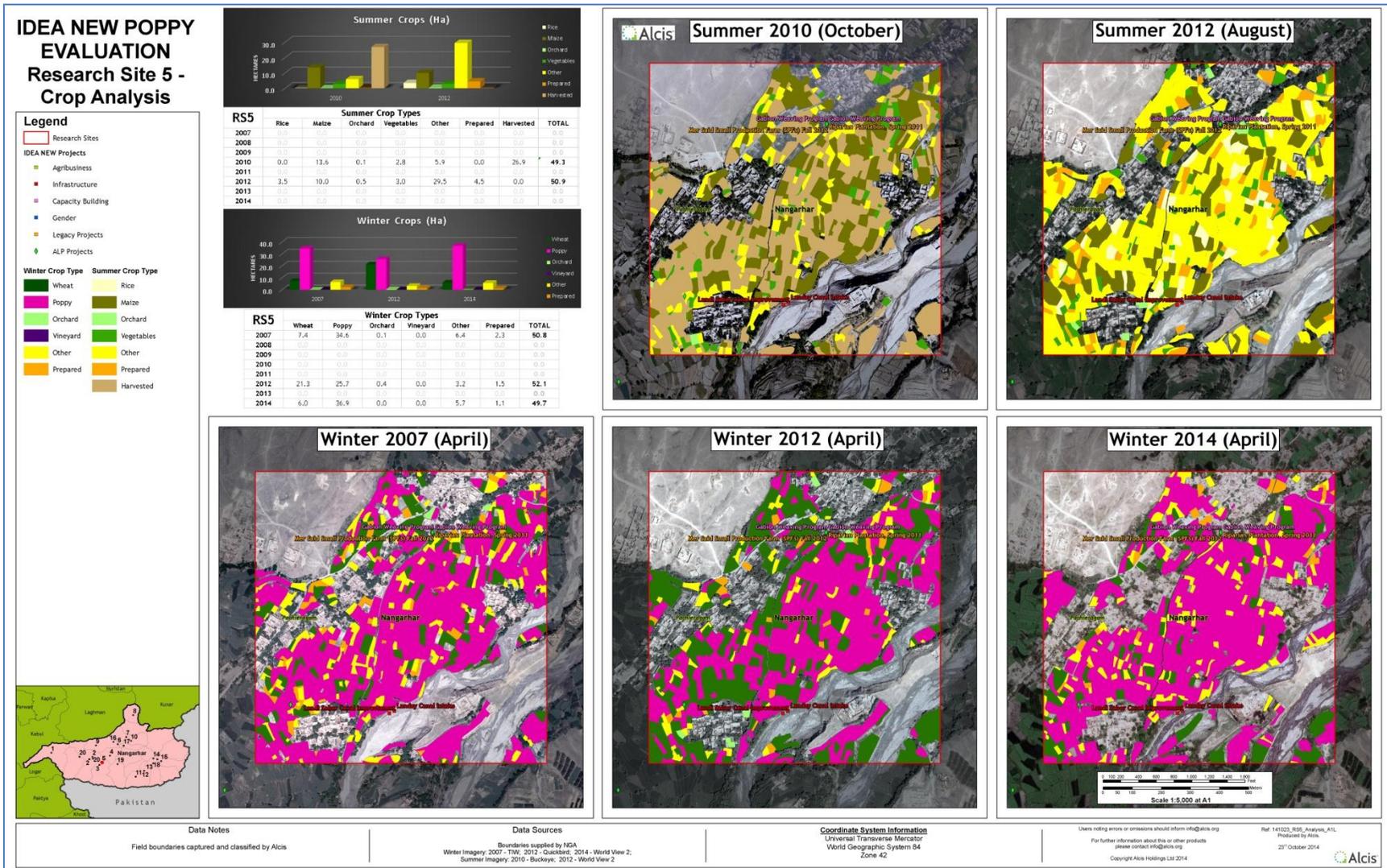


Figure 17: Cropping patterns in RS 5

Both economically and culturally there is still a preference for the household to continue farming and remain closely linked to the land, due to the direct entitlement derived from crop and livestock production, as well as the political status associated with land ownership, locally and within wider Pashtoon culture.⁴⁸ However, this presents a problem. Local markets are thin and isolated and while improvements in the road system have reduced travel times to more robust markets in Jalalabad and onwards to Kabul, farmers complain that transport costs have risen due to the higher price of diesel. Improved access to agricultural markets in Jalalabad have therefore not led to a significant increase in the cultivation of high value annual horticultural crops during the winter cropping season, as can be seen across the research sites in the southern districts (see Annex B).

RS 20 is illustrative of the cropping pattern that dominated the southern districts during the years that the government imposed a ban on opium production. During the years of the ban wheat was the dominant crop, accompanied only by a relatively small increases in the commercial production of horticultural crops, most notably onion. Yet even with the kind of improved wheat yields that farmers report due to what is often a multitude of investments in protection walls, intakes and other elements of the local irrigation system, achieving self-sufficiency in wheat production is hampered by the limited amount of agricultural land available and the large number of household members. As such, while farmers in many of these research sites report that wheat yields have risen from between 60 to 80 seer per jerib prior to the improvements in the irrigation system, to between 90 and 120 seer per jerib in 2014, a household of ten would still need to cultivate 2.6 jeribs of wheat just to meet their own domestic food requirements for bread.⁴⁹

Generally the amount of land allocated to the production of commercial annual and horticultural crops has remained limited in these southern districts, even when opium poppy was banned and more land became available. Remote sensing shows just how prevalent wheat production was between 2008 and 2010 during the winter cropping season in many of the southern research sites at the time of the opium ban (see RS2, RS 4, RS 20 in Annex B). Typically only small amounts of household land that had previously been cultivated with opium poppy were allocated to crops such as onion and tomato, while clover often occupied a maximum of half a jerib of land amongst those households who own livestock.

With the collapse of the opium ban, the wheat crop has largely been replaced by opium poppy across this zone. The few exceptions to this can be found in those areas close to the district centers where wheat cultivation continues. For example in RS 4, which is located adjacent to the district centre of Chapahar, farmers persist with wheat production along with annual horticultural crops like onion, tomato and okra. Similarly, in RS 12, which surrounds the district centre of Achin, opium poppy only occupied around 40 to 60 per cent of the land in 2014 and was hardly grown at all in the village of Pakhel which is closest to the Kahi and the district authorities.

⁴⁸ Daily wage labor is still considered a lower status job than agricultural production. However, salaried employment and trade enjoys much greater social status.

⁴⁹ This is based on a reported consumption rate of 0.5 kg of wheat per day per family member and assumed post-harvest losses of 10 per cent.

It is not just the return of opium poppy to the southern districts that is of concern but there are also signs in a number of research sites that there is an even greater amount of land dedicated to the crop in 2014 than in 2007. According to both the fieldwork and the imagery analysis this is a consequence of investments in irrigation infrastructure. Protection walls and improved intakes have prevented agricultural land from being washed away and brought new land under cultivation, and respondents report even greater amounts of new agricultural land beyond the 1km x 1km research sites. For example, farmers in RS2 claimed a new reservoir built by IDEA-NEW in the neighboring village of Tawda Chinar, had resulted in an additional 100 to 150 jeribs of agricultural land within the manteqa.⁵⁰ Similarly in RS 3, IDEA-NEW's improvements to two canal intakes were alleged to have led to an extra 50 jeribs of land under cultivation in the village. Imagery from RS 4 and RS 5 also show increased amounts of land under agriculture following IDEA-NEWs investments in protection walls and a canal intake (see Annex C). As can be seen from Figure 18, some of this new land was under opium poppy cultivation in 2014. Farmers also report higher opium yields – rising by as much as 20 per cent - as a consequence of the improvements to the irrigation system and subsequent water flows.

Reports of new or rehabilitated land were also received in other research sites. However, these increases were attributed to improvements in the irrigation system funded by other development programs, most notably the National Solidarity Program (NSP). In fact, the NSP seems to have heavily invested in irrigation improvements. For example, the new protection wall to the east side of RS 5 is reported to have been funded by NSP, while in RS 19 there were reports that the NSP was implementing an irrigation program that would impact on three villages (Badurkhel, Jamalkhel and Shaturlay) and bring a further 600 to 800 jeribs of former desert land under irrigation. It is not unreasonable to expect that given the extent of opium poppy cultivation in this part of Deh Bala that a significant proportion of this land would come under opium poppy were the project to be completed.

⁵⁰ A manteqa is cluster of several villages or settlements, often around a common natural resource.

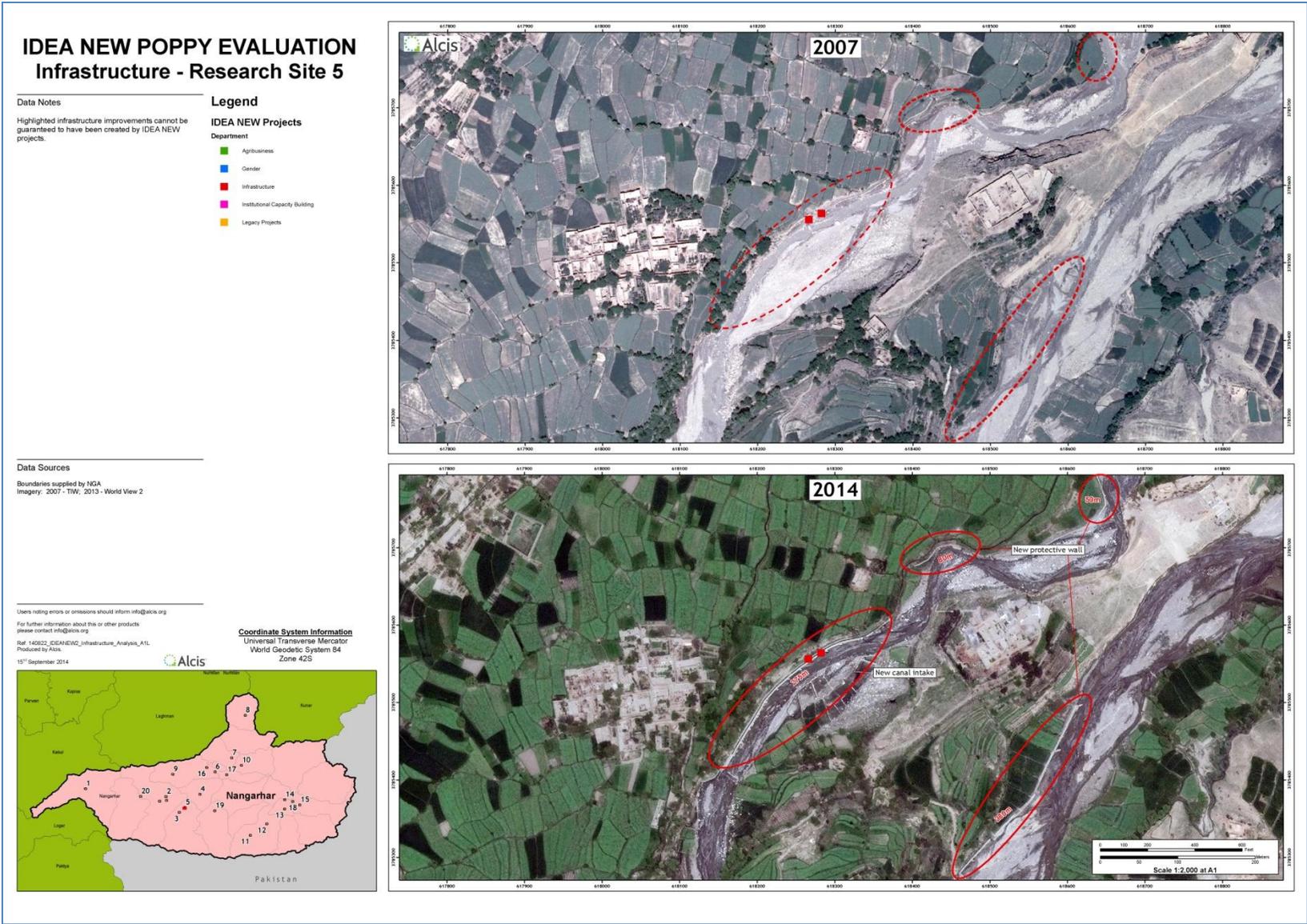


Figure 18: Expansion of land and poppy cultivation in RS 5

While improvements to the irrigation systems in some of the research sites in the southern districts has supported an increase in the amount of land dedicated to opium as well as higher yields, and does not appear to have led to increased crop diversification during the winter season, there is clear evidence that it has led to a shift in cropping patterns and an uptick in more valuable horticultural crops during the summer season. In fact, many respondents in this zone reported that they not only had more land under cultivation during the summer months, but that they were also obtaining greater yields across a wide variety of their summer crops (see Table 1). For example, maize production was not dismissed as a crop 'for the animals' as had been the case in the past, but was grown for household consumption and in some cases for sale.

With improvements in the availability of irrigation and the yields across a range of different summer crops, farmers reported moving away from maize to higher value crops such as peanut, tomato⁵¹ and cotton. Evidence of this can be seen from the imagery in a number of research sites including RS 4 and RS 19 where there has been an increase in the amount of rice cultivated (see Figure 19). Many of the crops that are now grown during the summer months in this zone are transported for sale in Jalalabad rather than sold locally at lower prices. This has led to increasing incomes from summer season crops than was the case in the past, further supporting livelihood resilience

Table 1: Increase in yields following irrigation project, RS 2

	Before Project (seer/jerib)	After Project (seer/jerib)
Wheat	50-60	80-120
Poppy	6-8	10-12
Maize	30-40	60-80
Cotton	20-25	30-40
Peanut	30-40	70

A further development during the summer growing season in this zone is the move into marijuana cultivation. With regards to this evaluation marijuana production was limited to RS 1 and RS 20. While fieldwork was not possible in RS 1 it is clear from the imagery that cultivation is extensive in the summer months. Cultivation in RS 20, located on the southern fringe of Kargha bazaar in Khogiani is more recent and less prolific. Interviews indicate the crop rarely occupies more than one third of the land grown in the summer season by those that cultivated it.⁵² The proximity to the district center led farmers to adopt a cautious approach to marijuana production, as it did towards opium production in 2014.⁵³ Farmers revealed that they sold their crop freshly cut at lower prices (50,000 - 60,000 PR per jerib) to traders from the upper valleys of Pirakhel and Zawa in Khogiani,⁵⁴ rather than the risk drying it in the sun and processing it into higher-value hashish.

⁵¹ 'In the past we only got a small crop of tomato, now we grow more land [with tomato] and get better yields' (RS 20, #10).

⁵² The exception to this is those farmers whose land holdings are one jerib or less.

⁵³ The imagery for 2014 shows opium poppy and wheat occupying around the same amount of land in RS 20, with more expansive wheat production to the north of the research site, the area closest to the district centre.

⁵⁴ It is claimed that some of these traders purchase the crop in the field, using laborers that they pay for, and then transport it back to the upper valleys where it is dried.

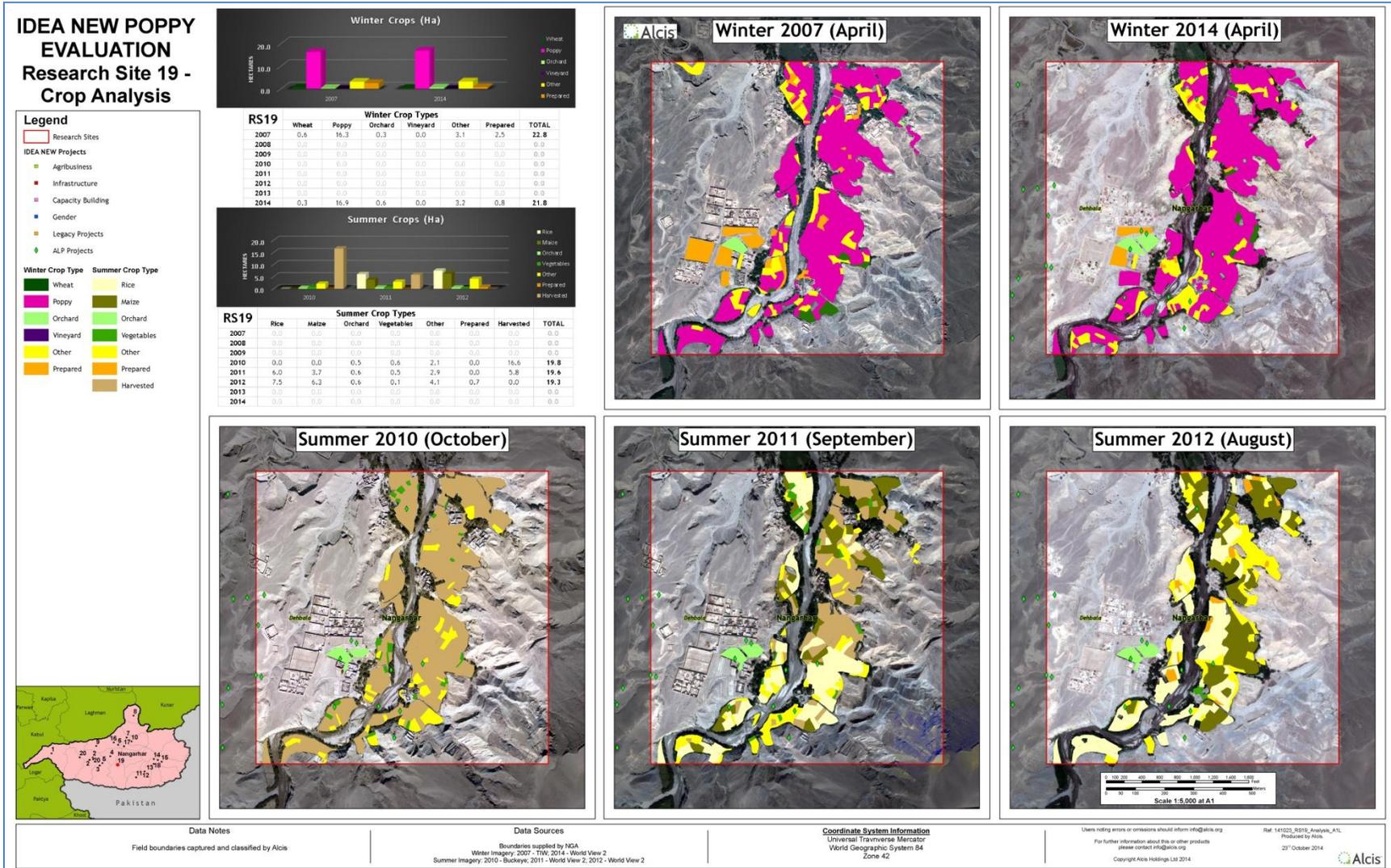


Figure 19: Cropping patterns in RS 19

With regards to diversification into perennials, the picture is more varied in the southern districts than in the lower lying areas of the Kabul river valley. There are signs of increased amounts of land being cultivated with orchards, typically apples, pomegranate, apricots and almonds in many of the research sites in this zone. However, there are also consistent reports of orchards being removed following poor yields.⁵⁵ Because both fieldwork and an initial review of the imagery showed fluctuations in the land area covered with fruit trees a focused GIS study was conducted as part of the evaluation to investigate the phenomenon.⁵⁶

The analysis for this evaluation shows that there are a number of research sites in the southern districts where there is quite a marked increase in the uptake of orchards between 2009 and 2011, when IDEA-NEW and other programs were particularly active in promoting their development. However, this imagery also shows that a number of these orchards were subsequently removed, while even more detailed imagery show some of the trees having been replaced by opium poppy in 2014 (See Figure 20 and 21). RS 1 shows the most pronounced fluctuations in the amount of land taken up by orchards, increasing from 2.2 ha in 2007 to 6.6 ha in 2010, before falling to 3.2 ha in 2014 (see Figure 22). The detailed analysis shows the same fluctuations but to a much lesser extent in RS 2, 3 and 20 (see Annex E).

Farmers' explanations for the removal of orchards centered on the quality of saplings that they claim to have been given and subsequent low yields. IDEA-NEW report that their 'saplings were certified by the Ministry of Agriculture Irrigation and Livestock (MAIL)', 'from reputable nurseries with proven adaptability to the area and were delivered with training and signed by the recipient that the trees were of good quality'.⁵⁷ However, respondents in the southern research sites argued that the saplings were not improved but local varieties and claimed that they had not yielded fruit.⁵⁸ Some respondents were angry that they had spent considerable time and effort on their orchards but even after five years the

⁵⁵ In this zone the cutting of trees was reported by farmers in RS 2 RS 3, RS 5, RS 19 and RS 20.

⁵⁶ This extra GIS was also conducted due to the disparity between the findings of this evaluation based on 300 qualitative interviews and high resolution remote sensing work, and those reported in the Orchard Program Report by IDEA NEW in 2014. This latter report offered a more positive assessment of the orchard program based on 921 quantitative interviews in Nangarhar conducted by IDEA-NEW staff (2014:1). While the Orchard Program Report (2014:1) indicates that GPS polygons (2014:1) were taken of each farm, the report does not indicate whether the sample includes orchards in the southern more insecure districts where access to IDEA-NEW staff is more problematic and where this evaluation found far greater incidence of the removal of trees.

⁵⁷ During the course of the review for this draft IDEA-NEW requested that the evaluation reflect that with regard to the orchard program. 'from 2009-2012: (i) all saplings were MAIL certified; (ii) for southern Nangarhar, all were procured in Jalalabad from reputable nurseries and proven adaptability to the area; all saplings were delivered with training and signed for by the recipient that the trees were of good quality; (iii) all farmers received training from IDEA-NEW extension agents, IDEA NEW sponsored field days, IDEA NEW also sponsored a radio program "Karkila Aw Maldari" specifically targeting farmers and providing guidance on pruning/grafting, watering, fertilization and general care of trees ; and (iv) IDEA-NEW - did not distribute chemicals- this is against USAID regulations (IDEA- NEW, comments 13 November 2014).

⁵⁸ This claim was also verified by fieldworkers in situ. Moreover, subsequent discussions with IDEA-NEW staff also suggested that there had been problems with some of the saplings distributed in Sherzad and Hesarak and that there were reports of trees having been cut (IDEA-NEW staff, personal communication, 18 September 2014).

trees were still not yielding.⁵⁹ Further complaints were heard about the input packages that were received and how these had not included many of the items farmers believed they had been promised but it is particularly unclear whether these comments actually relate to IDEA-NEW.⁶⁰

⁵⁹ 'Please take my complaint to the NGO [AREA] and ask them why my land has had no yield for 5 years. If there is no crop again this year, I will cut the trees' (RS 3, # 1); 'F*** the DAI people, they brought dry saplings' (RS 2, # 4).

⁶⁰ A number of respondents in RS 5 and RS 2 reported that they were promised saplings, fertilizer, pesticides and the equipment to spray it, training and tools. It was alleged that after the orchards were established there were no follow up visits. In RS 3 one respondent claimed that he and two other farmers were given one pump to share amongst them (RS 3, # 1). A further respondent in the same research site reported that he had received saplings but nothing else (RS3, # 12). These complaints over pesticides not being included in the package of items farmers expect or claim they were promised is illustrative of the confusion over what is supplied and by whom in many rural areas of Afghanistan. IDEA-NEW report that it is 'against USAID regulations' to distribute chemicals (IDEA-NEW, comments 13 November 2014). It is therefore difficult to understand why farmers would be under the impression that they would receive pesticides from the program, unless these promises had been made by another organization and respondents were confused as to who had provided support for their orchards .

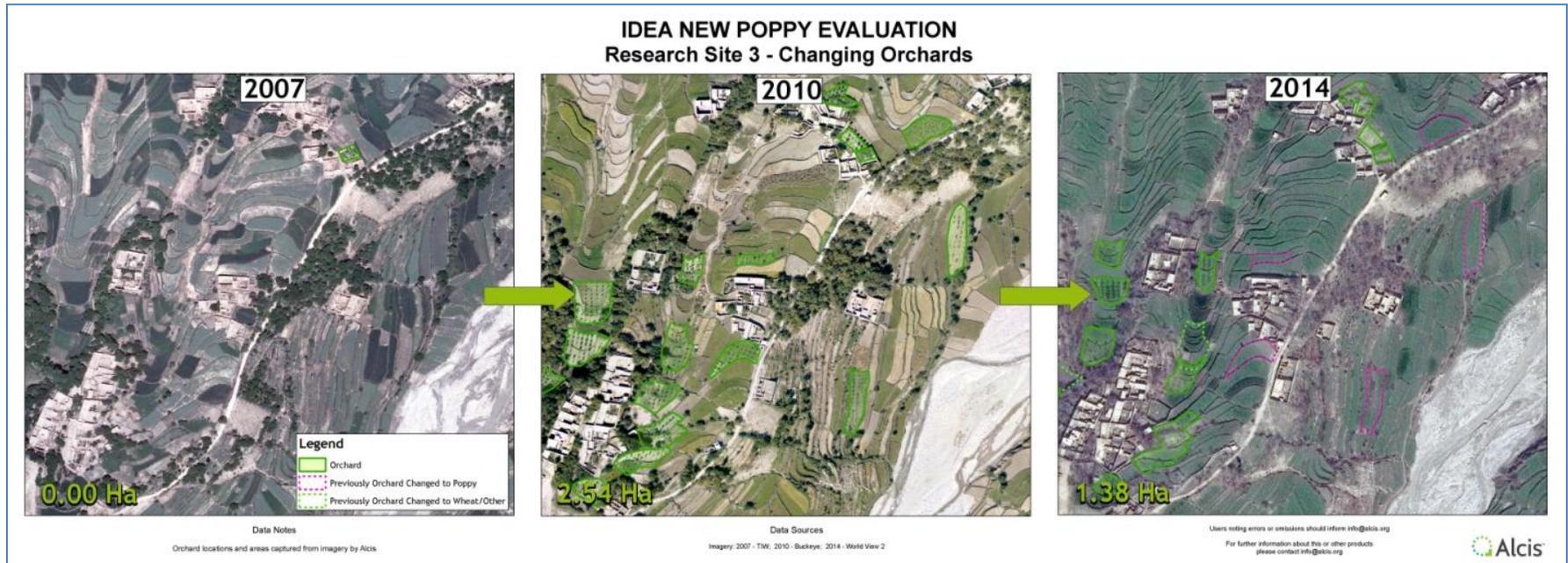


Figure 20: A zoom in on orchards in part of RS 3, showing some trees having been replaced by opium poppy between 2010 and 2014

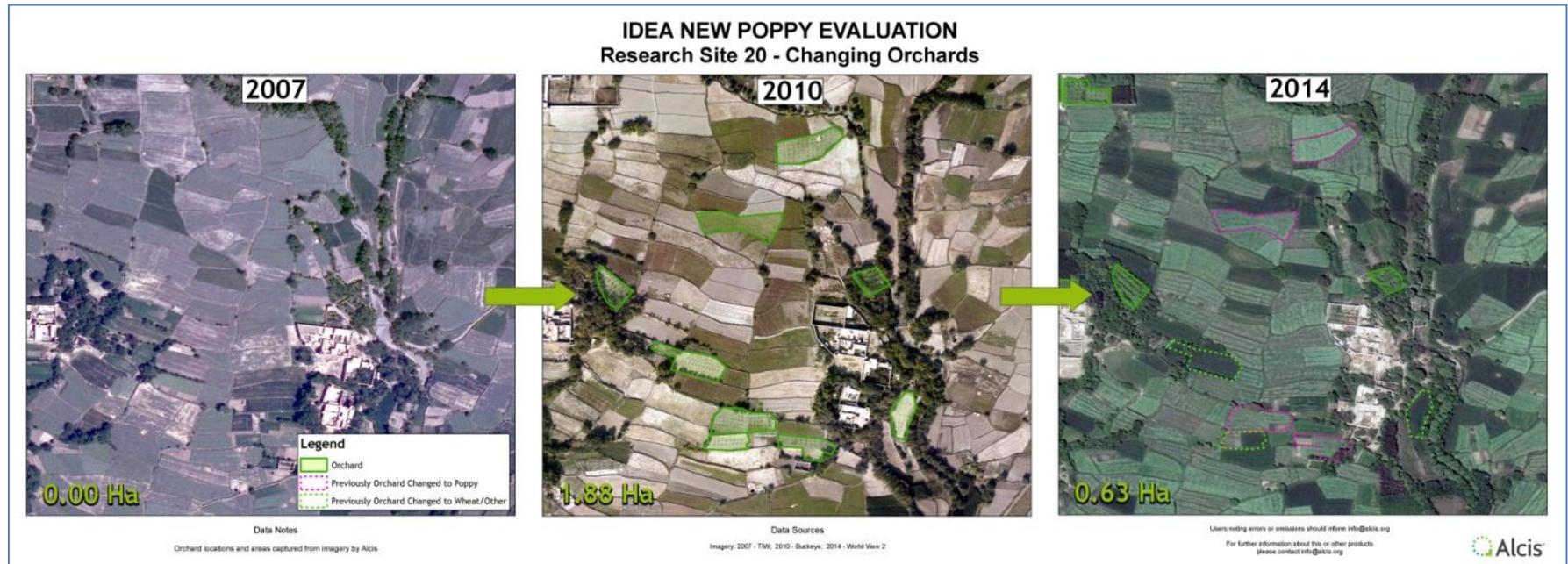


Figure 21: A zoom in on orchards in part of RS 3, showing some trees having been replaced by opium poppy between 2010 and 2014

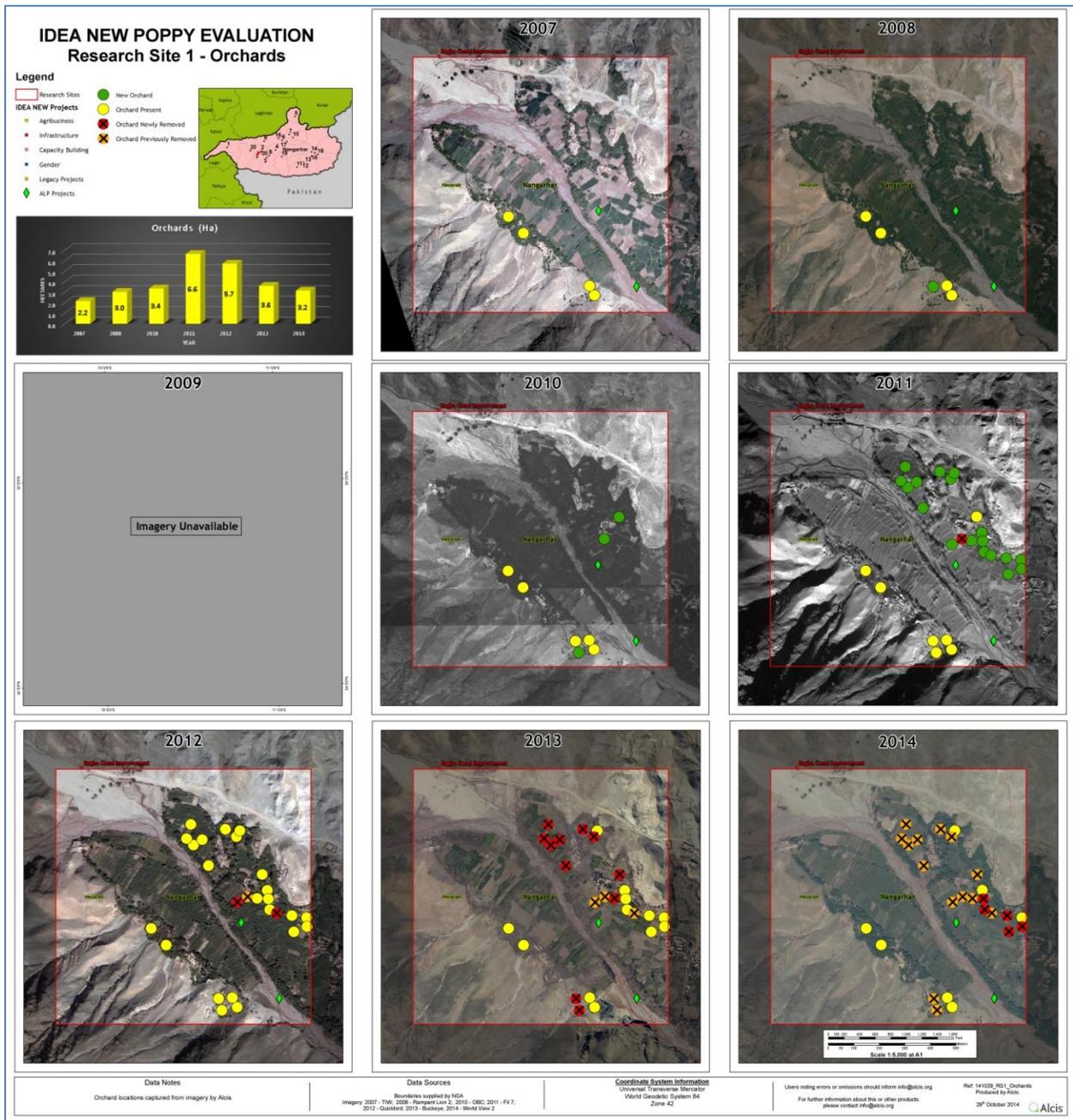


Figure 22: Amount of land dedicated to orchards in RS 1, 2007 -2014 (hectares)

A number of respondents claimed to have cut down the trees that they received from organizations like IDEA-NEW and AREA after only one year, and to have replaced them with saplings that they purchased from private suppliers in Jalalabad. It was not possible to confirm these claims using either remote sensing or through a closer examination of the orchards. Those whose trees remained reported low yields and limited crop sales. Typically the crop would be consumed by the household or given to guests as a mark of hospitality.⁶¹ There were consistent reports across the research sites that the theft of fruit from orchards by fellow villagers, and in particular children, limited the revenue that farmers earned from fruit trees and deterred further uptake. It was alleged that the construction of a perimeter wall around the orchards would reduce the losses incurred due to theft but the building costs were too high, particularly given low yields.

Diversification into non-farm income can be an important part of a strategy towards livelihoods resilience and has certainly proven to have played an important role in supporting farmers transition out of opium poppy production in Afghanistan and other opium producing countries. IDEA-NEW primarily focuses on increasing agricultural incomes, initially through the provision of improved agricultural inputs and more latterly through business development.

What little direct non-farm income employment there has been under the program has typically been cash for work created by the community infrastructure component of the program that was largely implemented prior to 2012. Such was the coverage of this element of IDEA-NEW that respondents in every research site in the southern districts where IDEA-NEW had engaged in a construction project, reported receiving a daily wage under the program. Most households claimed periods of employment of between 10 to 25 days under these engineering projects, although there were a few exceptions who reported longer. Wage labor rates varied from 180 AFs per day to 250 AFs, thereby representing a one off cash transfer of the equivalent of between \$36 and \$125 to each household involved in the community infrastructure component of IDEA-NEW.

However, the most significant and sustained impact that IDEA-NEWs infrastructure program had on non-farm employment is not found in direct employment related to cash for work but indirectly through facilitating trade and business development. There are challenges in quantifying the scale of the programs indirect effect on non-farm income but case studies do offer some insights as to the catalytic role that some infrastructure projects have had on the economies of local communities.

⁶¹ A respondent in RS 20, a local Khan, with 5 jeribs of land reported giving most of the pomegranates he grew on one jerib of land to guests when they visited his house. He reported prioritizing his pomegranate trees over the other summer crops that he cultivated when it came to irrigation, preferring to let his crop of groundnut to go dry rather than lose the pomegranates that he was so proud of.

For example, the bridge at the mouth of the Mahmand valley in upper Achin has not only changed the physical landscape of RS 11 but has been a boon to the local economy, supporting income diversification and livelihood resilience. The short term daily wage labor opportunities that the bridge initially provided⁶² when it was built in 2011 have been replaced by wage labor and trading opportunities in firewood and magnesium silicate (known locally as Shawkanay) that have only proven possible due to the bridge and the ease of access it has provided to Shadal bazaar,

Box 1: Talcum Powder and the Mahmand Bridge

The magnesium silicate business does not generate income just in RS 11 and the Mahmand valley but provides revenue across a much wider area, including to the government of Afghanistan and Pakistan. The value chain for magnesium silicate, known locally as shawkanay, begins in the hills to the north and east of RS11 where it is mined by people from the Mahmand valley. It is estimated that one miner collects around 100 seer of shawkanay in a day and sells it for 8 PR in the Mahmand valley. The shawkanay is subsequently transported across the bridge at the mouth of the Mahmand valley to Shadal bazaar where it is stored and purchased by traders for around 12 PR per seer. The shawkanay is then transported onwards to Pakistan where it is sold on the Peshawar ring road for around 6,000 to 6,500 PR per metric ton. Some of the final product is said to be transported to Karachi port and then on to Italy. While the government of Afghanistan is no longer present in the Mahmand valley it still generates a revenue stream from the production and subsequent trade in Shawkanay. Firstly, the government raises a revenue by issuing licenses to traders. These costs 50,000 PR and are issued by the Ministry of Trade following approval by the Directorate of Mines. Secondly, the government then taxes the trade, weighing the trucks transporting the shawkanay in Kahi, and charging 650 Afs per metric ton to be paid in the bank in Jalalabad. The final beneficiary of the trade is the Pakistani government which is said to charge a tax of 150 PR per metric ton on exports and 1,600 PR per metric ton when the shawkanay is sold in Pakistan. It is alleged that in the recent past the Taliban have also approached the traders of shawkanay looking for a financial contribution. It is said that the traders declined this request on the basis that there are insufficient profit margins in the business.

and onwards to the Jalalabad to Torkham road. Respondents report earning wages of 400 to 600 PR per day collecting wood from the mountains and selling it in the local bazaar in Sunzarley. Those mining magnesium silicate in the area to the north and east of the research site earned 750 to 900 PR per day. The trade in both these commodities and in opium, heading across the bridge from the lower areas up to the Pakistan border, have all created further jobs in the transport sector (see Figure 23).

In terms of building livelihood resilience to the ban on opium, most of the non-farm income that respondents report in the southern districts is not related directly to IDEA-NEW or other development programs but to opportunities in the trade and transport sectors. For example a growing number of households report having purchased a motor vehicles in the last few years, setting family members up as taxi drivers earning anything from 10,000 to 15,000 PR per month. While respondents claim the money for this investment (between 200,000 and 350,000 PR) is derived from opium production and/or the salary of a family member, they also report that this income opportunity would be much more limited were it not for the development of the road network and bridges funded by programs like IDEA-NEW.

⁶² Locally, it is reported that daily wage labor rates for work on the bridge varied from 300 Afs per day for unskilled work and 500 Afs for skilled work. In keeping with local traditions these jobs were divided amongst households according to land ownership and land size.

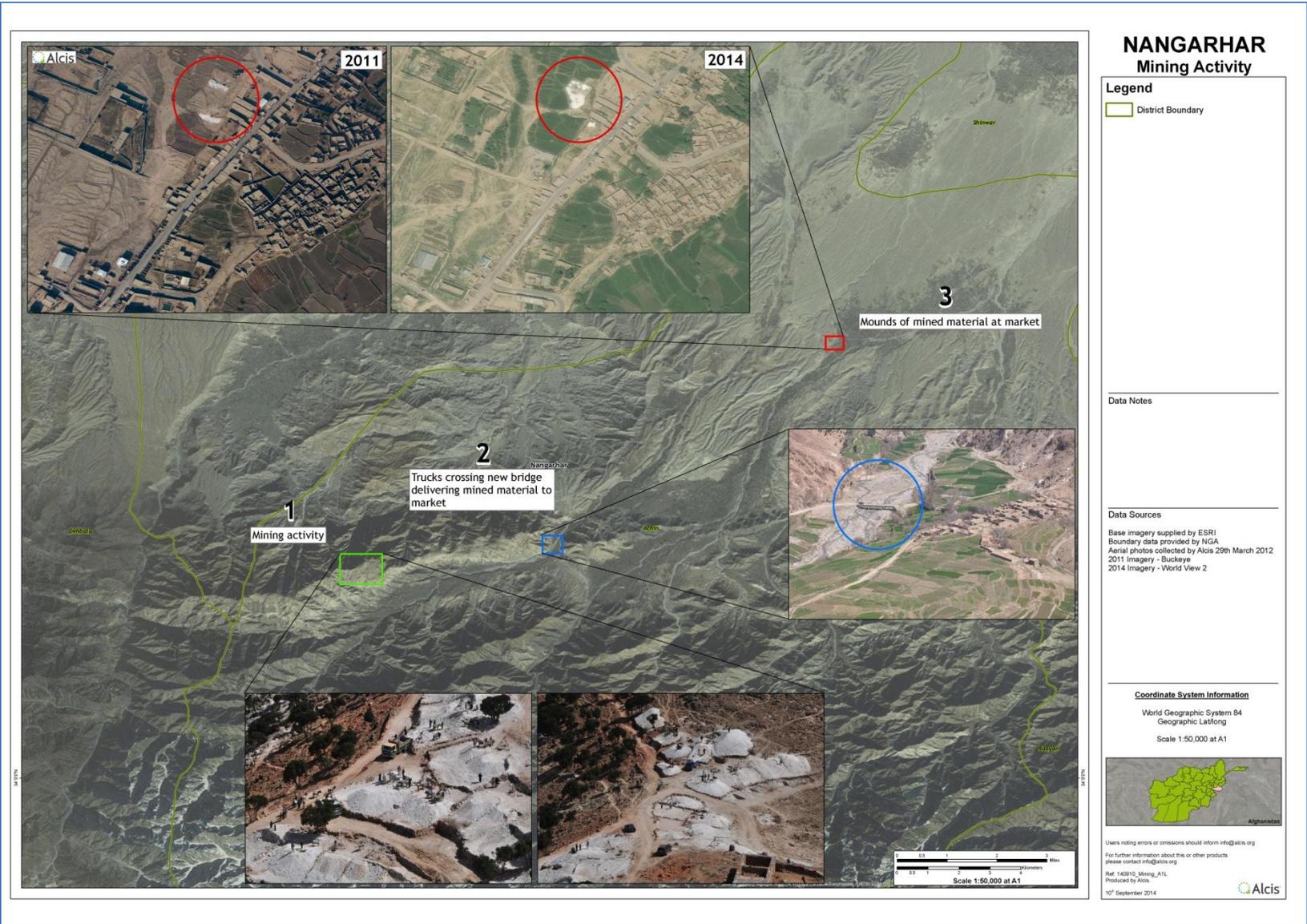


Figure 23: Mining of magnesium silicate in Mahmand valley, Achin both in and around RS 11

In terms of salaried employment most have family members in the ANSF or earn a salary from teaching in a local school. It is perhaps surprising given the strong insurgent presence in these areas that such a large proportion of households have members who work in the public sector. Yet, those working as teachers do not seem to have any problems in insurgent areas.

Those in the ANSF were not so lucky and were subject to pressure, and in some cases threats, punishment and even death, at the hands of insurgent groups. The worst cases of intimidation and violence appeared to be in Khogiani where insurgents were mounting what appeared to be a systematic campaign of intimidation and threats aimed at those households with family members in the ANSF. Those with family members in the ANSF were alleged to have been given the option of either removing their son or brother from the security forces or leaving the area entirely. Those that left the ANSF were given an amnesty as long as the family member's name was announced in the local mosque prior to their departure, and the individual reported to the mosque in their village as soon as they left the security forces. Similar reports were heard in the research sites in Achin and Shinwar. Even in Upper Surkhrud, close to RS 9 there were reports of an insurgent checkpoint, established each day at dusk, searching cars on the main road looking for members of the ANSF en route to visit their families in the upper districts of Khogiani, Sherzad, Hisarak and Pachir wa Agam.

It is likely that this campaign of concerted action against those with family members in the ANSF will have a significant economic effect in the southern districts if it gains traction. There has been a large number of households from the southern districts with family members in the ANSF. These family members have remitted much of their salaries of between 22,000 and 30,000 PR per month. The loss of this income stream will further reduce livelihood resilience and increase economic dependency on opium poppy in these areas.

Public Goods and Social Protection

Access to public goods along with social protection mechanisms are one way for households to build resilience and cushion the impact of asset depleting risks. Development investments in the southern districts bordering Pakistan have been extensive, and on top of the agricultural programs such as orchards and agricultural extension, respondents list a large number of projects implemented in the different research sites covered in this zone. These often include a combination of projects, including the construction of schools, clinics, hospitals, culverts, bridges, reservoirs, protection walls and intakes; the gravelling or asphaltting of roads; the provision of wells for drinking water; and the establishment of micro hydro programs.

Farmers in this zone recognize the improvements that these development programs have made to their welfare even if they are not fully aware of who implemented it and where the funding came from. The provision of schools and clinics are perhaps the most widely appreciated public good and respondents across the southern districts report a general improvement in their access to health and education over the period which IDEA-NEW has been implemented. It is also recognized that access to these and other goods and services had been made easier by improvements to the road network, even if transport costs have risen during this period.

Indeed, with the return of opium poppy and increasing income there are signs of growing number of respondents transporting family members to Jalalabad to take advantage of private health⁶³ and education provision. The reduction in travel times between these once remote areas has made it much easier to transport the sick to what are considered better health care providers in the private sector in Jalalabad, and many of those who are now cultivating opium opt to travel there in the event of an 'emergency'. Similarly increased incomes, improved roads and a change in aspirations have changed the way that an increasing number of respondents in the southern districts access education. Private courses in English and computing have become more commonplace and cost around 300 PR per month. A growing number of those interviewed also report sending their sons to private universities in Jalalabad (3000 PR per month) funded by the income earned from opium production and/or non-farm income they derive from trade or public sector employment.

It is important to note that the provision of both public education and health continues despite the presence of insurgent groups within the southern districts of Nangarhar. In fact there were reports in a number of districts that the Taliban had established an education commission and was seeking to improve education provision in the areas where they have influence. For example in RS 11 it was claimed that at the request of the population the head of the education commission had urged both teachers and students to improve their attendance and their efforts at school and that this had yielded results. Clinics and hospitals also remain open in the southern districts.

While the provision of public goods such as health and education continue in the southern districts, state provision in the security sector is limited. Respondents typically claim that ANSF presence is restricted to the district centers and the main arterial roads, and even there they are subject to frequent violent attacks. The establishment of the Afghan Local Police (ALP) as a substitute for ANSF presence in rural areas is viewed with disdain and has done little to improve the rural population's perception of the state.⁶⁴

The state's failure to provide for the physical security of the rural population is seen to have multiple and conflicting effects on livelihood resilience. Primarily it has eroded confidence in the government's ability to deliver further development assistance and improve the quality of life of the rural population.⁶⁵ Governor Ludin is perceived as weak and ineffective⁶⁶ and the government is seen as having other

⁶³ A farmer in RS 11 reported taking his son to a private doctor in Jalalabad the day before being interviewed. He claimed to have paid 400 PR for the lease of the car one way. The doctor charged 400 PR for the visit. It was said that laboratory tests were 900 PR each and that two to three of these were required (RS11 #12)

⁶⁴ 'The wali and his staff just sit in his office. They have a good salary and money. They hire the arbaki who are very bad people. The arbaki push the people, they smoke hashish' (RS 5, #7).

⁶⁵ 'We don't have trust in the government or its employees as it has not brought security for the people' (RS 3, # 15).

⁶⁶ 'There is no idea about the government, the new Governor can't make relations with local people and people don't have a clear idea about him' (RS4, # 14); '[Gul Aga Sherzai] is not a good man but he did a lot of good work in Nangarhar. The new Governor is asleep, we never see him' (RS 4, #2).

priorities, particularly at the time of fieldwork when the second round of the election was taking place.⁶⁷ This has furthered the perception amongst farmers of a disconnect between the government and the rural population and encouraged an attitude of self sufficiency amongst farmers which will tend to favor a relatively high value crop like opium.⁶⁸

Most importantly the weak position of the government, and the inability of the ANSF to impose its will on the rural population is seen as instrumental in the return of opium poppy to these areas.⁶⁹ The failure to mount an effective eradication campaign, particularly in those research sites adjacent to the district centers of Chapahar, Achin and Khogiani, is seen as indicative of just how fragile the states hold on territory in the southern districts has become -⁷⁰ although in a few cases the government's inability to act is interpreted as benevolence.⁷¹

Insurgent presence is not seen as a problem in its own right. It is only when insurgent groups fight amongst themselves or with government forces that it impacts on farmers and their capacity to earn a living. In fact, the presence of insurgents is seen to have provided the conditions in which opium production can resume, has increased livelihood resilience and is welcomed by those interviewed in this zone.⁷²

Moreover, reports of predation by insurgent groups are rare compared to complaints about corruption, theft and the selling of public goods by both government officials⁷³ and members of the local elite who acted as their interlocutors when development assistance was more readily available. Payments to insurgent groups do occur but amongst farmers these are largely small contributions of cash or opium on the basis of 'khud ay was' - as much as they can afford. In some research sites payments rarely exceeded 500 PR, or 0.5 seer of opium. In others payments ranged between 1,000 and 2,000 PR. Those involved in trading commodities paid more. For example a businessmen transporting marble from

⁶⁷ 'The district and provincial authorities don't say anything about poppy this year; they are busy with the election' (RS 2, # 3). 'The governor and the district employees are not interested in poor people. It is only during the election that they ask about the poor people' (RS 20, #5).

⁶⁸ 'The provincial authorities didn't do anything for us, but we also don't need them' (RS 13, #13).

⁶⁹ 'This government is weak, the government is divided. If security is damaged I will always grow poppy' (RS 20, # 5); 'If this weak government remains there will be more poppy and the life of the farmer will be better' (RS 2, #12); 'There is no security! The government cannot bring security. They can't ban poppy. I will grow poppy as there is no work' (RS 20; #6).

⁷⁰ 'The eradication campaign is dead in Kahi' (RS12, #5); 'They destroyed only a small plot for the picture' (RS12, #5); 'An elder "bought" land from government [to destroy the poppy] just to take a picture' (RS12, #9).

⁷¹ 'The government is good as we have cultivated poppy near the district centre and they have not destroyed it' (RS 20 #1); 'We are happy with the government as we have poppy but we also have government projects, we have the Taliban here but [the government] do not bomb the area' (RS12, #19).

⁷² 'The government is weak, security is not good. The Taliban are king of the village. There is less land and people cultivate poppy. I will also grow poppy next year' (RS 19, # 7).

⁷³ 'The provincial authorities and the district authorities don't come to the village they don't bring anything. They stole both the fertilizer and the improved seed' (RS2, #14); 'The governor and all the government employees are corrupt. Everything they do is for themselves not for the people' (RS4, #3).

Hisarak, reported paying 5,000 PR per year to the Taliban, but reported earning 6,000 PR per month from the trade.

Where insurgent presence could have the greatest impact on livelihoods in the southern districts is on the income earned by those in the ANSF. As discussed above, the pressure to leave the ANSF has intensified in many of the southern districts, reflecting the insurgents' consolidation of political power. There are reports across the research sites in this zone that those in the ANSF cannot return to their villages without fear of violence and that there is a campaign of night letters and messages in the mosques to persuade people to leave. In balance there are greater annual revenues to be earned from having household members in the ANSF than opium poppy cultivation and many families prefer to persist with both - and are currently succeeding in doing so. Improved opium yields of up to 12 seer (1.2 kg) per jerib and relatively high farmgate prices of up to 9,000 PR per seer (1.2 kg) proved a welcome addition to household income in 2014, particularly given the small landholdings in this area.

Since 2011, when the opium ban in these areas collapsed, livelihood resilience has improved and there are signs of asset accumulation and investments in licit income streams. Food consumption has recovered with the return of opium production and households report eating meat and fruit every week or fifteen days compared to once a month or even longer during the years that poppy was banned. In further contrast to the years in which opium was prohibited and when households compensated for the significant loss of income they experienced by selling household goods, livestock and luxuries, as well as delaying marriage - all to make up for their significant drop in income - respondents purchased carpets (12,000 to 15,000 PR each), gold rings (18,000 to 30,000 PR), cars (170,000 to 300,000 PR), motorbikes (42,000 PR to 60,000 PR), dairy cows (70,000 to 77,000 PR) extended their houses or built new ones (200,000 PR to 500,000 PR), and arranged for the marriage of their brothers and sons (200,000 PR to 300,000 PR). Fieldwork reveals that the use of solar panels⁷⁴ to generate electricity for the household have also become widespread across this zone; a function of increased opium production and non-farm income opportunities.

In sum, development programs such as IDEA-NEW have supported livelihood resilience in the southern districts of Nangarhar. The development investments made by programs like IDEA-NEW in these districts have been transformative but have not been sufficient to generate the incomes required for households to meet their basic needs in the absence of opium poppy. The focus on construction has improved access to social infrastructure, such as education and health, and facilitated the movement of people and goods to markets in district centers and Jalalabad; it has increased the amount of agricultural land and yields, but it has not led to the kind of diversification into high value horticultural crops and non-farm income that can be seen in the lower lying districts in the Kabul river valley.

Instead, in the years that opium was banned wheat dominated the landscape even in the areas close to the district centers. The production of high value annual and perennial horticultural crops has increased,

⁷⁴ The solar panels cost between 7,000 and 8,000 each, a battery between 6,000 and 10,000 PR. There are then a variety of other items required such as switches and wires, bring the total cost to around 20,000 to 25,000 PR.

but we do not see the amount of land dedicated to these crops or the complex cropping patterns that can be seen in the lower lying areas. Nor do we see the non-farm income opportunities - the local employment, the movement of labor to Jalalabad and Kabul, and the proliferation of local trading opportunities that are required to support transition out of opium production.

3.4 Conclusion

IDEA-NEW is just one rural development program amongst many in the province of Nangarhar. It has been implemented alongside a range of different bilateral, national and nongovernmental programs, all of which vary in scope, function and objectives. In its initial year IDEA-NEW developed a strategy for engaging both directly and indirectly with communities in the more remote and insecure areas where opium poppy was concentrated. However, increasing levels of violence, including the killing of IDEA-NEW staff, in the southern districts of Nangarhar led to the curtailment of project activity in the very districts in which opium poppy was beginning to reappear. At around the same time USAID/Afghanistan changed the goal of IDEA-NEW, removing the explicit emphasis on reducing opium poppy cultivation and focusing its objectives exclusively on expanding the legal economy.

Although IDEA-NEW has had to adapt to both changes in the security environment and the demands of USAID/Afghanistan, it is possible to see how, along with other development programs implemented in the province, the program contributed to improving livelihood resilience in the face of the opium ban that was imposed in 2008. The effect has been most pronounced in the low lying well-irrigated areas of the Kabul river valley. These are areas where the state has a history of direct rule and where drug crop cultivation has not historically been at the forefront of the livelihood portfolios of the rural population. There are often other existing economic opportunities that farmers can draw upon in these areas, and in the context of a significant international effort, their privileged position—a function of location, history, resource endowments and the close bond between local and sub national elites in these area—increased public and private sector investment has resulted in welfare gains for the rural population despite their abandoning opium production.

This is also an area where IDEA-NEW was particularly active, engaging in a wide range of development projects aimed at improving productive infrastructure, as well as directly increasing and diversifying rural incomes. The depth and scope of these program activities were instrumental in minimizing the short term negative impact of the ban on opium production, supporting households' transition out of opium poppy cultivation, and reducing the risk of rural resistance to the government's counternarcotics efforts. However, without the wide range of other development investments that were taking place at the time, including initiatives in security and governance it is unlikely that IDEA-NEW would have had the same effect.

Livelihood resilience to the ban on opium is less apparent in the areas on the periphery of the Kabul river valley where lack of irrigation and now insecurity constrain crop and income diversification. These are areas where development investments have been insufficient to support livelihood resilience, to

mitigate the impact of the opium ban on the rural population, and to quell what appears to be a growing resistance to the provincial and central government. In the absence of opium poppy, low value low risk crops like wheat and maize have dominated the landscape, imposing significant economic losses over an extend period of time for those families without a non-farm income. Much greater attention needs to be given to increasing the population's access to off-farm and non-farm income opportunities in these areas.

Finally, livelihood resilience to the ban is negligible in the southern districts of Nangarhar where opium poppy is now concentrated. The scale of the task in this area is daunting. Small landholdings, large family sizes, as well as distance to agricultural and labor markets all militated against sustaining the ban on opium production. The program's focus on infrastructure in this area, and its lack of investment in income generating activities, did not adequately support farmers in better managing the shock they experienced when the ban was imposed. Now there is a resurgence in opium production in this area there is also evidence of greater amounts of land dedicated to the crop and higher yields, largely due to the improvements that programs like IDEA-NEW made to irrigation.

There is a need to be realistic about what can be achieved by a single program or even a variety of programs operating in this kind of insecure and challenging terrain, particularly when they are not coordinated and are not required to consider how their programs impact on opium poppy cultivation, including to mitigate the risk that some interventions might lead to further cultivation in the future.

Ultimately, it appears that IDEA-NEW was spread too thin on the ground, spending various amounts of money in each of the 22 districts within the province. Investments in the districts most vulnerable to opium poppy cultivation have been limited given the scale and complexity of the task. For example, the district in which the greatest amount of money has been spent is Achin, where US\$ 1.2 million was spent between 2009 and 2014. Over this same period the opium produced in this single district, even accounting for the low levels of production between 2009 and 2011, was worth an estimated US \$ 40.2 million (see Table 2). The value of the opium crop in Nangarhar over this same period was an estimated US\$ 276 million and IDEA-NEW's expenditure in the districts was US\$ 10.8 million (see Table 3).

While it is a crude comparison to compare the value of investments by one program in a district, or a province with the value of the opium crop -and it is not to suggest that the level of development investment needs to be the equivalent to yield results - it does highlight the challenges for a program like IDEA-NEW and how expectations need to be held in check. It also indicates how important it is that programs like IDEA-NEW work with the wide range of other projects being implemented in Nangarhar, including USAID's other rural development programs, as part of a coordinated effort in order to maximize development and counternarcotics effects.

The disconnect between the pace of reductions in opium poppy caused by the imposition of an outright ban, and the scale and nature of the development effort in these southern districts is apparent. Ultimately, the ban on opium poppy cultivation in Nangarhar inflicted an immediate and dramatic loss in the welfare of the vast majority of the rural population in the southern districts. In the absence of

opium poppy, households were compelled to pursue activities that undermine their future earning capacity—such as selling long-term productive assets—or expose family members to greater hazards. The prospects of even sizable development investments offering respite from the impact of an opium ban are severely limited by the location, terrain, and limited resources (most notably water) of these areas.

The political terrain in these areas is also hostile to the imposition of drug crop bans. The highly contested nature of political leadership in these areas means that local elites risk their political position where they are seen to support a ban on opium poppy cultivation for more than a single season, even more so if the elites are seen to be benefitting from the patronage of sub-national, national or international actors. In these circumstances the rural elite faces immediate opprobrium from the local population; disaffection can soon become violent and more widespread when the state can no longer maintain the appearance of order. The fact that an opium ban is presented as an international priority—something imposed from outside—offers elites the political space with which to distance themselves from a ban, and renege on their commitments when political survival demands it.

The wider and changing political environment and economy makes maintaining a ban all the more challenging in these areas given how susceptible the population is to exogenous shocks, particularly after a ban has been imposed. Other economic shocks such as rising food prices have had a significant effect on the population, as have natural disasters such as drought or crop failure. Elections have further disrupted the political coalitions that supported the imposition of a ban, prompting the formation of new alliances as political rivals within the local and sub-national elite look to gain support from a disaffected population. This all points to the fact that opium bans in these more remote southern districts on the border with Pakistan are doomed to fail not because of the impact a ban might have on farm-gate prices, or due to corruption and the insurgency, but because the bargains on which these bans are built are inherently unstable, constrained by state-societal relations, local configurations of power, the resource endowments of the population, and the sheer number of disparate and competing institutions involved.

Moreover, in these areas bans on opium poppy cultivation have proven counterproductive. Bans have fuelled instability precisely because they expose the rural population to significant economic shocks; they have destabilized the political order due to the fluid and fragile nature of local leadership and the perceived failure of the local elite to deliver improvements in welfare and state patronage; and finally such bans have damaged the bond between state and remote rural populations, fuelling violence and rural rebellion. The harmful impact is precisely because the ban presents an image of a state and a local leadership that does not care about the welfare of the population but prioritizes its own interests and those of foreign benefactors. Evidence strongly suggests that in this kind of terrain—where the state does not have a history of presence or at least strong relations with local elites, where there is a history of resistance against the government, and where there is very high economic dependency on opium poppy cultivation—an opium ban should not be considered. Realistically, in this environment the kind of rural assistance undertaken by IDEA-NEW can only be expected to have at best a limited effect on levels of opium poppy cultivation.

Table 2: Value of opium crop in Achin, 2009 -2014					
Year	Hectares	Average yield (kg/ha)	Annual Production (kg)	Average Price (US\$)	Total value (US\$)
2009	14	36.2	507	90	45,612
2010	10	51.1	511	130	66,430
2011	254	40.7	10,338	290	2,997,962
2012	580	38.6	22,388	291	6,514,908
2013	2,224	45.1	100,302	171	17,151,710
2014	3,004	39.6	118,958	113	13,442,299
					40,218,922

Table 3: Value of Opium crop in Nangarhar, 2009 -2014					
Year	Hectares	Average yield (kg/ha)	Annual Production	Average Price (US\$)	Total value (US\$)
2009	294	36.2	10,642.8	90	957,852
2010	719	51.1	36,740.9	130	4,776,317
2011	2,700	40.7	109,890.0	290	31,868,100
2012	3,151	38.6	121,628.6	291	35,393,923
2013	15,719	45.1	708,926.9	171	121,226,500
2014	18,227	39.6	721,789.2	113	81,562,180
					275,784,871

4. CONCLUSION

In June 2012 the Office of the Inspector General's Country Office in Afghanistan conducted an audit to 'determine whether USAID/Afghanistan's IDEA-NEW program was meetings its goal to dissuade Afghans from growing poppies by increasing access to licit, commercially viable, alternative sources of income'⁷⁵. The audit raised concerns over the contribution IDEA-NEW made to the goal of poppy reduction drawing on three lines of argument.

The first line of argument was the physical location of project activities and the fact that, according to the OIG, IDEA-NEW was not operating in accordance to the cooperative agreement that underpinned the program, and that 'program activities were not always carried out ' in areas where poppies are (or are likely to be) cultivated'. As evidence of the program not targeting poppy prone areas, the audit then went on to cite the fact that 'four of the fifteen provinces in which the program was implemented were poppy-free from 2007 through 2009, when the program started'⁷⁶.

The second line of argument by OIG builds on the first and relates to program impact and the worsening cultivation figures in the provinces in which IDEA- NEW is implemented. The audit noted that 'two IDEA-NEW provinces lost their poppy-free status, and that five provinces increased opium cultivation between 2010 and 2011',⁷⁷ implying that an appropriate geographic focus would have perhaps countered this trend.

Finally, the third line of argument was the claim by the OIG that USAID had instructed IDEA-NEW to 'focus only on expanding the licit economy' and deleted two intermediate goals from the Program's Performance Plan that dealt with the provision of assistance to rural communities that voluntarily eradicated opium poppy or those who have experienced opium eradication.⁷⁸ OIG argued that 'by dropping these intermediate results, the mission not only shifted focus but also deprived itself of information needed to make sound programming decisions' and without these 'was unable to provide evidence of the programs contribution [to reducing poppy]'.⁷⁹

Given these findings, the audit recommended that USAID/Afghanistan (1) assess the focus and location of project activities as necessary, to maximize the program's contribution to dissuading Afghan from growing poppies, and 2) define and use intermediate results, performance indicators, and targets toward the underlying objective'.⁸⁰

USAID /Afghanistan did not agree with these findings or the audit's primary recommendations. It disputed the OIG's claim that IDEA-NEW was not primarily focused in areas that were prone to high

⁷⁵ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012. p.2.

⁷⁶ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁷⁷ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁷⁸ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁷⁹ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁸⁰ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 7.

poppy growth and argued that while the 'primary program objective' was rephrased to expand the licit economy... the underlying objective of [the program] remains the same - to dissuade Afghans from growing poppy seeds'.⁸¹ USAID/Afghanistan's response to the OIG went further, drawing on UNODC's data on poppy cultivation to argue that IDEA-NEW had made a positive contribution to reducing poppy in many of the provinces in which it was operating, including Nangarhar, which at the time of the audit in 2012 was cultivating less than 3,000 hectares of opium poppy. USAID/Afghanistan argued that the program's suspension of activities in Khogiani and Sherzad 'result[ed] in a significant resurgence in poppy production'.⁸²

While the disagreement between OIG and USAID/Afghanistan on the role that IDEA-NEW plays in reducing opium poppy cultivation appears to be primarily about the physical location of program activities and a debate over whether or not the program is suitably centered on opium producing areas, the crux of the discussion seems to be more an issue of the timing and duration of program activities. The OIG appears to suggest that it is incumbent on IDEA-NEW to focus its activities in areas where opium is currently grown or is increasing. USAID/Afghanistan justifies the geographic focus of IDEA-NEW on the basis that opium poppy was once grown in the areas in which the program is currently being implemented and that the program has played its role in reducing levels of cultivation and without it the situation would be worse.

From an agronomic perspective opium can be produced almost anywhere in Afghanistan. When this mobility is combined with the challenges associated with replacing the deep-seated, multifunctional role that opium plays in the rural economy - particularly when it is recognized just how dependent some households are on the crop for their livelihoods - it is difficult to imagine how a rural development program with a finite time frame, budget and geographic coverage, could be so flexible and simply 'follow the poppy' as the OIG implies. When the deteriorating security situation in many poppy growing areas is also taken into consideration, along with the potential perverse incentives associated with diverting development assistance away from non poppy growing areas to poppy growing areas, it is perhaps understandable that USAID/Afghanistan responded to the OIG's audit as it did. There is also scope for program activities, particularly the kind of business support that IDEA-NEW has focused its efforts on since 2012, to have development impact on areas and populations in poppy growing areas beyond immediate project locations, if designed to do so.

At the same time, USAID/Afghanistan's argument that it has contributed to reduced levels of opium poppy cultivation has become increasingly problematic with the resurgent opium production that has been seen in most of the IDEA-NEW provinces since 2011.⁸³ In particular, USAID/Afghanistan's reference to Nangarhar as an exemplar for the effectiveness of IDEA-NEW in 'improving farm systems as an

⁸¹ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 25.

⁸² OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 26

⁸³ Between 2011 and 2013 there were only five poppy free provinces (Nuristan, Kunduz, Jawzjan, Samangan and Sari Pul) amongst the 15 provinces covered by IDEA-NEW, and nine provinces had seen an increase in cultivation (Kunar, Laghman, Nangarhar, Badakhshan, Badghis, Herat, Takhar, Balkh, and Faryab). See UNODC/MCN Poppy Survey 2013, p. 98-103.

alternative to opium poppy⁸⁴ is particularly questionable in light of the dramatic rise in opium poppy cultivation between 2011 and 2014, rising from 2,700 hectares to 18,227 hectares, and, given that based on fieldwork for this study, further increases are expected in 2015.

Significant increases in cultivation in the southern districts of Nangarhar where there have been large investments, not just by IDEA-NEW, but by a range of different development actors, including the PRT, raises questions over the efficacy of the development effort to date and its contribution to reducing opium poppy cultivation. This report has shown how some development interventions, in particular irrigation, have led not only to increased levels of opium poppy cultivation but also to higher yields. This points to the more fundamental issue that the OIG touches on when referring to USAID/Afghanistan's exclusive focus on the 'licit economy'⁸⁵ and the fact that the mission was 'unable to provide evidence of the program's contribution [to reducing poppy]';⁸⁶ the absence of a clear change-model that informs the logic of IDEA-NEW and identifies how improvements in licit livelihoods actually manifest in reducing opium poppy, and in particular how program activities will actually change farmer decisions and support a transition out of opium poppy cultivation.

While the initial IDEA-NEW Annual Activity Plan offered some initial thoughts as to how it would address the causes of opium poppy cultivation in the different kind of economic and political terrain that it was working, these were not developed any further. For example, in April 2009 IDEA-NEW's Activity Plan highlighted the program's role in working 'in and around those districts with poppy or prone to grow poppy'⁸⁷ and offered a number of strategic entry points for engaging with communities that were more dependent on opium production due to their particular socio-economic conditions.⁸⁸ At this point in the program's life IDEA-NEW even argued that it would 'aid' US PRT's in the programming of grants 'in ways that help provide incentives for poppy free economic activity, or conversely build in deterrents to planting poppy'.⁸⁹

Subsequent activity plans for IDEA-NEW could have developed a more robust strategy for addressing the causes of opium poppy cultivation and better articulated the change model that inform program priorities and activities. However, this did not happen, and even by October 2010, prior to OIG's claim

⁸⁴ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 26.

⁸⁵ The Government Accountability Office also claimed that between 2002 and 2005 'USAID awarded most of its new agricultural funds to alternative development programs to (1) increase agricultural productivity, (2) accelerate economic growth and (3) eliminate illicit drug cultivation' but in 2009 the US 'shifted the focus of its agricultural strategy in Afghanistan from counternarcotics to counterinsurgency efforts'. See GAO 'Afghanistan Development' Enhancements to Performance Management and Evaluation Efforts Could Improve USAID's Agricultural Programs' GAO-10-368, July 2010, page 7-11.

⁸⁶ OIG, Audit of USAID/Afghanistan's IDEA-NEW Program, Audit Report No F-306-12-004-P, June 29, 2012p. 5.

⁸⁷ IDEA-NEW Annual Activity Plans Year 1, April 2009, page 2.

⁸⁸ For example, IDEA-NEW's programmatic approach included a rationale for community constructed infrastructure as a way of gaining access to 'marginal and fringe areas where poppy is likely to be grown' and stressed the importance of 'promot[ing] non-farm employment opportunities' in 'vulnerable and poppy prone areas' that 'frequently do not have the agricultural resources to sustain their current populations' IDEA-NEW Annual Activity Plans Year 1, April 2009, page 2.

⁸⁹ IDEA-NEW Annual Activity Plans Year 1, April 2009, page 31.

that USAID changed the program's goal to focus exclusively on expanding the licit economy , there was already less emphasis on addressing the causes of opium poppy in the IDEA-NEW bi annual activity plan.⁹⁰ By October 2012 the issue was barely discussed at all.⁹¹

The shift in emphasis in the program is also reflected in the monitoring reports and the impact analysis undertaken by IDEA-NEW during implementation. Most of these products refer to opium poppy briefly, often only in reference to the overall objective of the program,⁹² and the analysis they contain does not differentiate between the divergent economic and political terrain that exists within provinces and the quite different histories of opium poppy cultivation that can be found.⁹³ The Final Endline Household Survey Report of May 2014 does not cover any of the districts in Nangarhar in which opium poppy has become increasingly concentrated over the life time of the program, including districts like Achin and Chapahar where IDEA-NEW made significant investments,⁹⁴ leaving the program unsighted as to what effect it has had in the geographic areas where cultivation and insurgency were most prevalent.

⁹⁰ See IDEA-NEW Activity Plan No.3., Resubmission date October 29 2010. This plan makes a small number of references to communities that are 'susceptible to insurgency or poppy' (pages 11, 18, 19, 59), the program's intermediate result of 'Increase public and private assistance to voluntary opium poppy eradication community' (p 53 & 59), and sets out some assumptions as how project activities will impact on those cultivating opium poppy (page 74, 76,77 85).

⁹¹ A word search of the document reveals that the word 'poppy' is mentioned only once on page 7. IDEA-NEW, Activity Plan for Program Expansion, August 2012, page 7. 'Alternative development' is discussed but it is largely a restatement of the importance of rural economic growth and building licit value chains rather than how this work will impact on those locations and groups that have a history of opium poppy cultivation and may be vulnerable to returning to cultivation. The extensive sections on the different value chains that IDEA-NEW focuses on - grapes, orchards, vegetables, poultry, and wheat and oilseed, silk, honey and karakul - make no reference as to how the development of these value chains will impact on those areas and households who continue to grow opium poppy or risk returning to it (page 19- 67). The discussion on proposed infrastructural projects does not consider their potential impact on opium production, including how the risks that improved irrigation might encourage further opium poppy cultivation might be mitigated (page 68) and the M&E plan (page 69-77) does not offer a strategy for testing the overall hypothesis of the program, or USAID's wider effort in Afghanistan, that 'agricultural programs contribute to both stabilization and counternarcotics policy goals through the promotion of a growing and licit agriculture sector in Afghanistan' (page 2).

⁹² For example see the review of the poultry and orchard programs, both reports refer to IDEA-NEW as a program either 'attempting to provide alternatives to poppy cultivation' (IDEA-NEW, Orchard Program Report, 2014, page 7) or designed to provide viable economic alternatives to the opium poppy crop ' (IDEA-NEW Poultry Program Independent Assessment, September 2014, page 6), neither look to address this goal in their evaluative work.

⁹³ It is unclear if many of the surveys are based on data collection in some of the more insecure and poppy prone areas that the original activity plan for IDEA-NEW referred to. Many of the surveys only refer to the provinces in which data was collected and do not refer to the specific districts or areas within the provinces making it difficult to judge whether the data is truly representative of all of the areas in which IDEA-NEW operated.

⁹⁴ While the report does make reference to opium poppy, the data on yield and prices is problematic and does not seem to have been checked against other sources. In Nangarhar fieldwork for the survey was conducted in Dahre Noor, Deh Bala, Ghani Khel (Shinwar), Kama and Surkhrud (IDEA-NEW, Endline Household Survey Report, May 2014 page 109-109). In 2013 UNODC reported that none of these districts cultivated opium poppy (UNODC Poppy Survey 2013, [page 101] while a total of 15,719 hectares were grown in the province as a whole, including 2,224 ha in Achin and 1,452 ha in Chapahar where US\$ 1.2 million and US\$ 723,000 was spent by IDEA-NEW, respectively, over the course of the program.

Perhaps of greatest concern is the fact that none of the monitoring and evaluation mechanism's adopted by the IDEA-NEW program, including the questionnaire for monitoring infrastructural projects, assess how different project activities might impact on opium poppy cultivation. Nor do they include the identification of mitigation measures where there is a risk that project inputs might encourage further cultivation or facilitate the transport of opiates, such as in the case of irrigation,⁹⁵ the provision of agricultural inputs such as fertilizer,⁹⁶ or interventions such as broiler farms, greenhouses, and increased wheat yields,⁹⁷ that might support agricultural diversification amongst relatively resource-wealthy households, but would impact on the land poor who are often the most dependent on opium poppy cultivation for their livelihood.

At best the program seems to have assumed that an expansion in the licit economy will automatically reduce opium poppy cultivation, at worst it may have ignored the issue altogether. In its latest activity plan of March 2014,⁹⁸ IDEA-NEW has not looked to justify or prioritize its investments in value chains on the basis of the impact that they could have on more marginal, insecure or 'poppy prone' areas to 'contribute to the US government's stabilization and counternarcotics policy goals'.⁹⁹ Nor has there been an attempt to assess the impact that support for micro, small and medium businesses are having on the population and local economies of these areas - where many of these enterprises are purchasing agricultural produce or providing agricultural inputs.

The OIG's report of both the change in goal and the deletion of the intermediate results indicates that USAID/Afghanistan were working on the same assumption as IDEA-NEW and the perception that opium poppy was no longer a priority. Moreover, the author's conversations in the PRT in Jalalabad in 2010 and 2011 with USAID staff who had oversight responsibilities for the program in the eastern region, highlights the lack of a clear understanding of the role that economic growth and rural development can play in supporting the transition out of opium poppy cultivation and the likelihood that opium poppy would return to the southern districts of Nangarhar. In fact, one Cognizant Technical Officer (CTO)

⁹⁵ The IDEA-NEW 'Questionnaire for field monitoring report for CCI projects' includes a check list on whether the project contributes to USAID indicators on 'hectares under improved irrigation' and 'construction of irrigation infrastructure' and even includes environmental mitigation measures. It does not include any risk assessment with regard to the potential for infrastructure to be used to produce or transport opium and the identification of possible mitigation measures.

⁹⁶ For example, the IDEA-NEW Agriculture Projects Monitoring Report includes sections on Women's participation, beneficiary statements and environmental monitoring but no assessment is required as to the impact on opium poppy cultivation.

⁹⁷ A review of various field monitoring reports and impact surveys for sectors such as poultry, kitchen gardens, orchard development, cash for work, as well as more areas based reviews such as for Mazar or for the eastern region, and cross cutting themes such as gender and communications (radio broadcast for agriculture and livestock) indicates that the opium poppy reduction goal of the program is not discussed. The only monitoring report that does mention opium poppy is the 'field report for off season vegetable green houses', dated May 23, 2012. This cites one of the beneficiaries whose husband was a drugs user and who cultivated opium poppy in the past.

⁹⁸ IDEA-NEW, Activity Plan#5 March 1 2014-- February 28, 2015 (revised May 2, 2014).

⁹⁹ IDEA-NEW, Activity Plan#5 March 1 2014-- February 28, 2015 (revised May 2, 2014). page 5.

referred to the fact that there was little reason for IDEA-NEW given that opium poppy was no longer cultivated in the province of Nangarhar.

Even now USAID/Afghanistan's understanding appears limited to a model of 'alternative development' that is focused on replacing the income from opium poppy in the advent of a successful law enforcement effort to ban opium poppy,¹⁰⁰ rather than seeing rural development in poppy prone areas as a more dynamic process designed to build livelihood resilience and improve the overall welfare of the different population groups within a given geographic area. So far analysis remains rooted in a comparison of returns to different crops,¹⁰¹ and fails to offer an assessment of how the combination of different interventions targeted in the same geographic location will impact on different populations groups, their household assets, and their decision to cultivate opium poppy.¹⁰²

It is apparent from this evaluation that sustained reductions in cultivation are possible in those areas where there is better security and governance has and where rural communities have the necessary support to diversifying their livelihoods and access public goods and social protection mechanisms. This evaluation also shows that building resilience to a ban on opium production in areas where the political and economic conditions are less favorable and a much harder venture requires a longer term, coordinated effort that moves beyond providing infrastructural support designed to expand the legal economy. In fact the results of this evaluation show that such a limited response will not only fail to prevent a resurgence in opium poppy cultivation, it can also lead to development investments being used to cultivate greater amounts of higher yielding opium poppy in the future. Future development programming needs to consider this point carefully and regardless of the budget line drawn upon - alternative development, agriculture or other rural development funding - state how a program (i) will impact on different population groups within rural communities (ii) address the causes of opium poppy cultivation across different population groups and communities; and finally (iii) mitigate the risk that an intervention will encourage further opium poppy cultivation.

¹⁰⁰ For example the draft annex on Poppy Cultivation and USAID Alternative Development to USAID/Afghanistan's Agricultural Sector Assistance Strategy refers to the more instrumentalist approach to rural development in poppy growing areas where '{t}he purpose of AD is to foster economic growth and thereby mitigate adverse economic impacts on the local population from changing to licit crops, and thus reduce resistance to more direct poppy control measures and increase the chances of their sustainability' (page 26). A further statement indicates that and 'AD's role is to make poppy suppression more humane and politically acceptable by reducing the negative impact of suppression efforts on household incomes' (page 28).

¹⁰¹ The draft annex on Poppy Cultivation and USAID Alternative Development to USAID/Afghanistan's Agricultural Sector Assistance Strategy offers provides an economic analysis of poppy cultivation relative to other crops (page 18-24).

¹⁰² For a critique of the challenges associated with crop by crop comparisons see William Byrd and David Mansfield, Afghanistan's Opium Economy: An Agriculture, Livelihoods and Governance Perspective. A Report Prepared for the World Bank Afghanistan Agriculture Sector Review (revised version 23 June 2014), p 117-130.

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Annex B

IDEA NEW Poppy Evaluation

Research Site

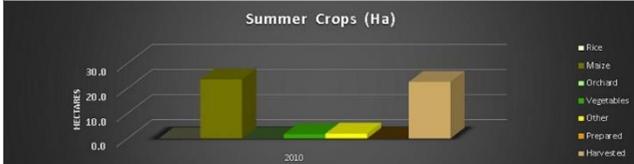
Crop Analysis

IDEA NEW POPPY EVALUATION

Research Site 2 - Crop Analysis

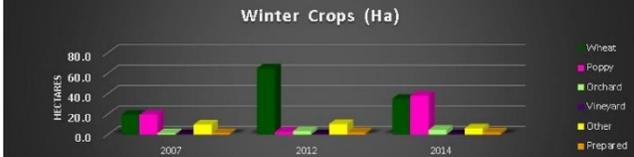
Legend

- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



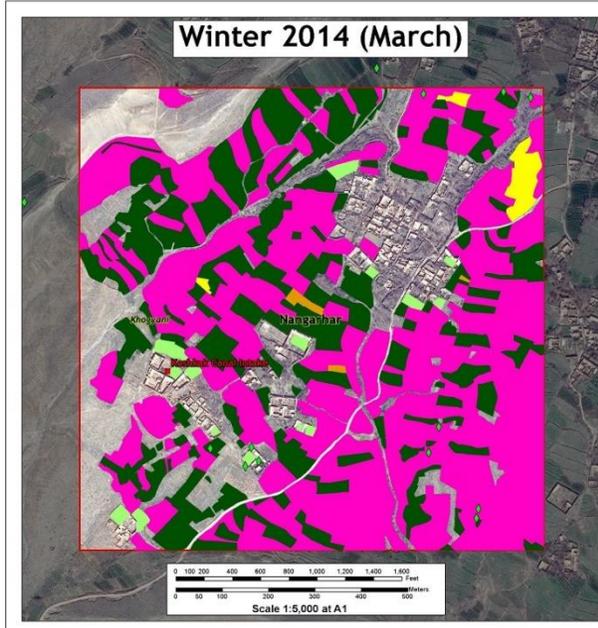
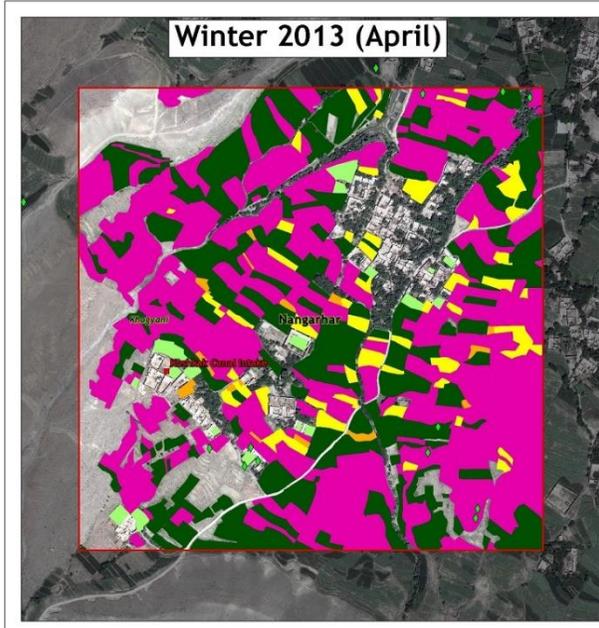
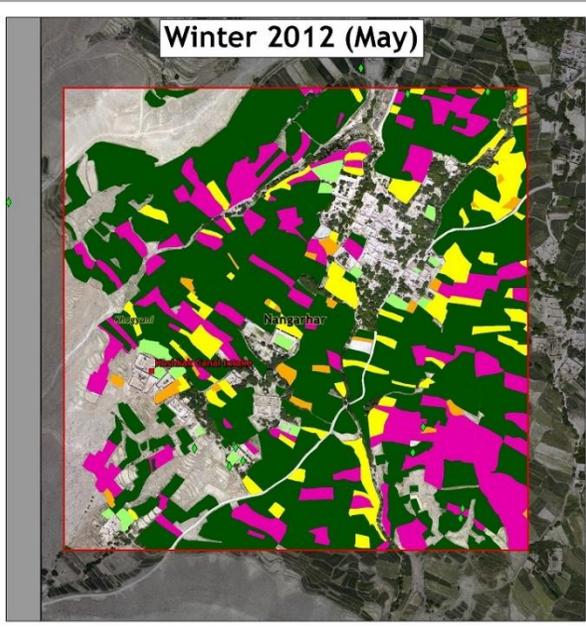
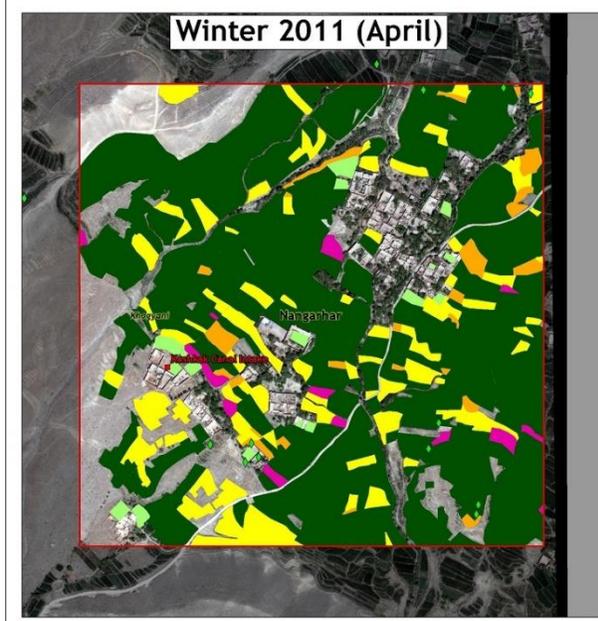
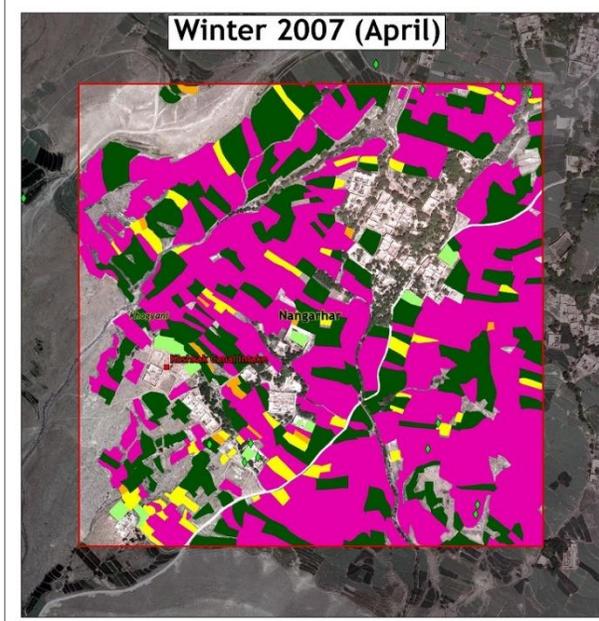
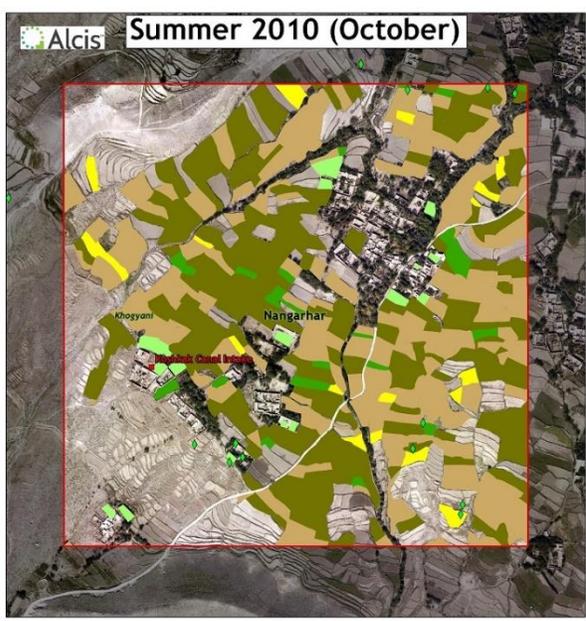
RS2 Summer Crop Types

	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	23.6	0.0	1.7	1.9	0.0	22.6	27.2
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS20 Winter Crop Types

	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	19.3	19.3	1.3	0.0	9.7	1.4	51.1
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	64.8	2.5	3.3	0.0	10.2	2.1	82.9
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	34.9	37.9	4.5	0.0	6.0	2.1	85.3



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Imagery: 2007 - TiM, 2010 - Buckeye, 2011 - World View 2,
 2013 - World View 2, 2014 - World View 2

Coordinate System Information

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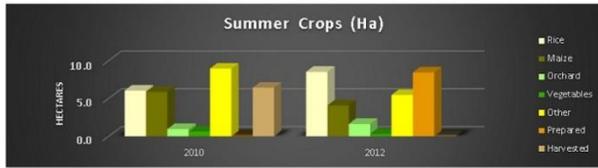
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Research Sites

IDEA NEW Projects

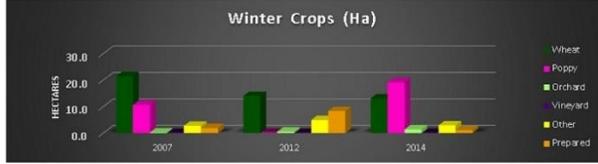
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type	Summer Crop Type
Wheat	Rice
Poppy	Maize
Orchard	Orchard
Vineyard	Vegetables
Other	Other
Prepared	Prepared
	Harvested



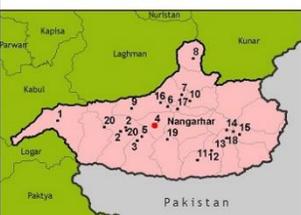
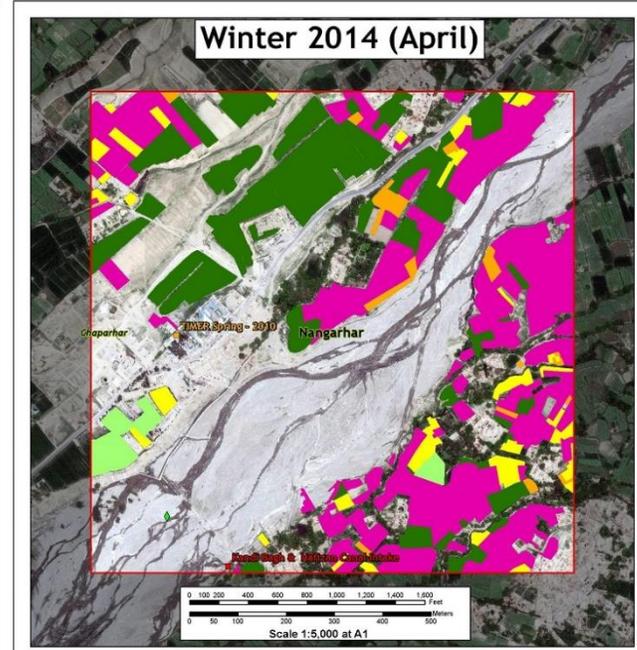
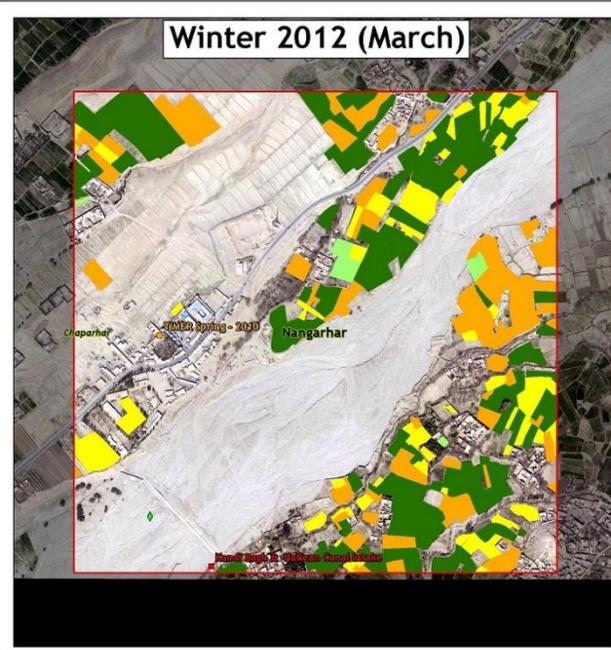
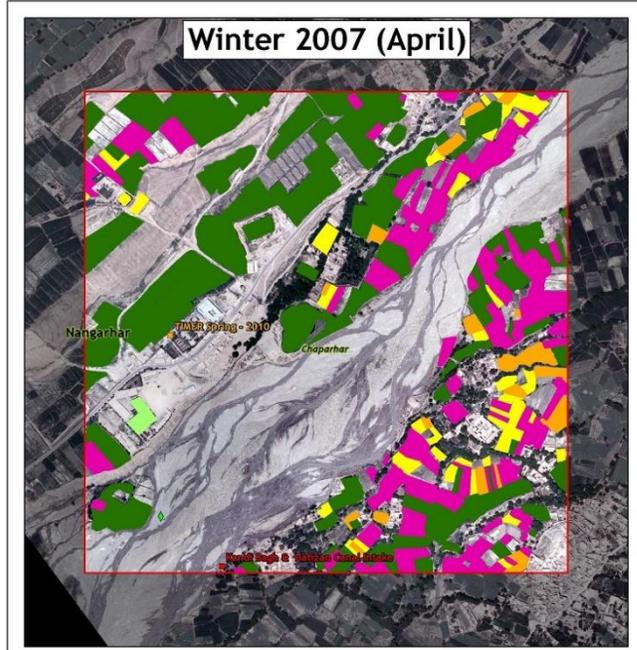
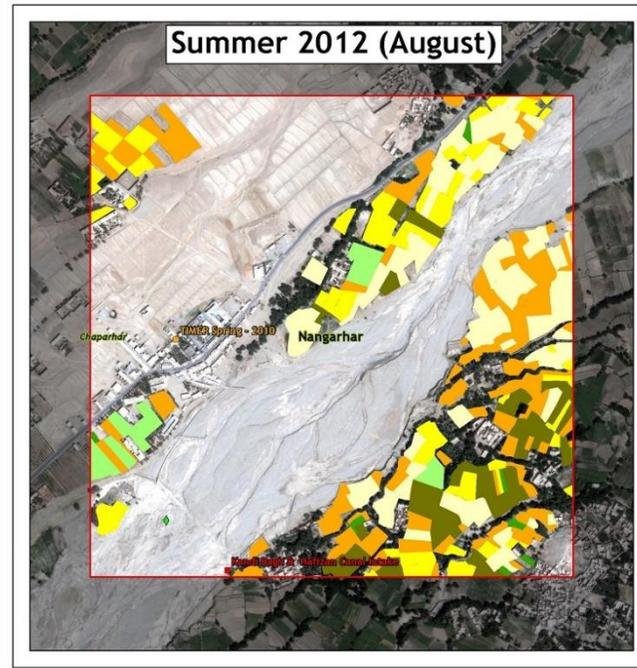
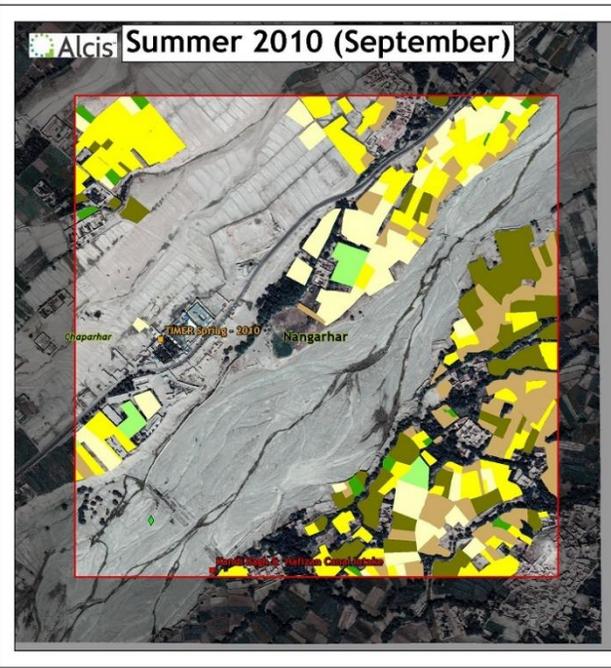
RS4 Summer Crop Types

	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	6.1	5.9	1.0	0.6	9.0	0.0	6.4	28.9
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	8.5	4.1	1.6	0.3	5.5	8.4	0.0	28.4
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS4 Winter Crop Types

	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	21.5	10.6	0.3	0.0	2.8	1.9	37.1
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	14.0	0.0	0.6	0.0	4.9	8.3	27.8
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	13.1	19.2	1.4	0.0	2.9	1.1	37.7



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - T1W, 2012 - Buckeye, 2014 - World View 2;
 Summer Imagery: 2010 - World View 2, 2012 - World View 2

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Research Site 5 - Crop Analysis

Legend

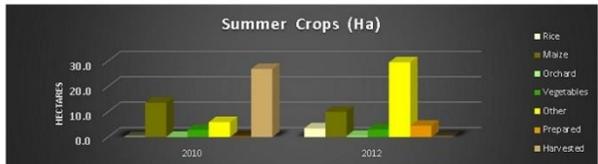
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IDEA NEW Projects

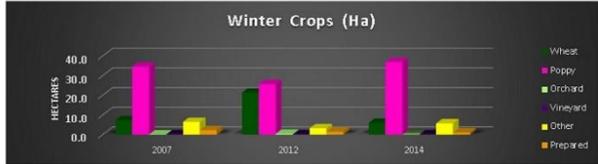
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- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type Summer Crop Type

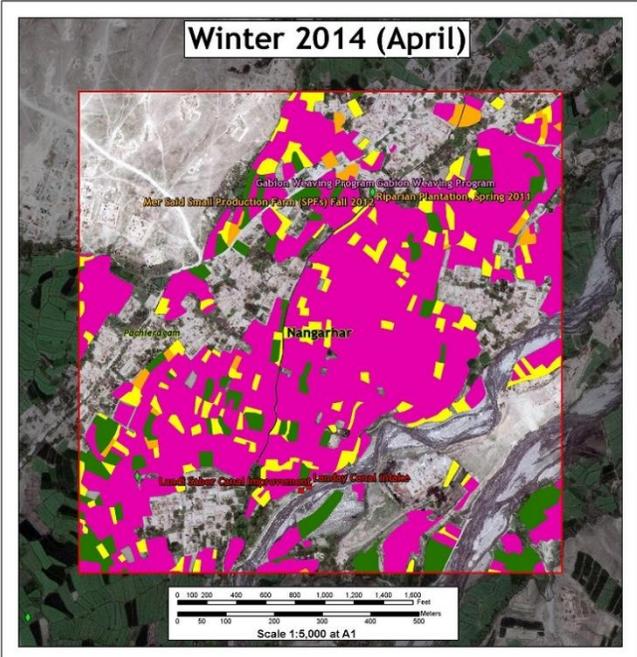
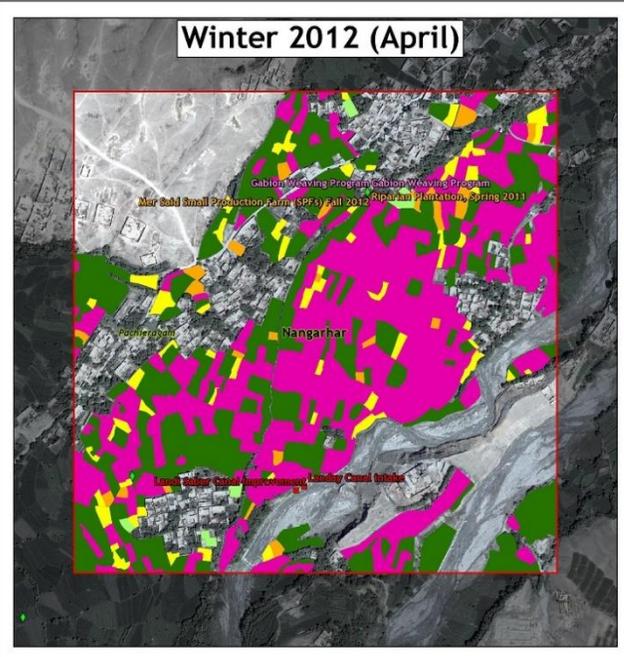
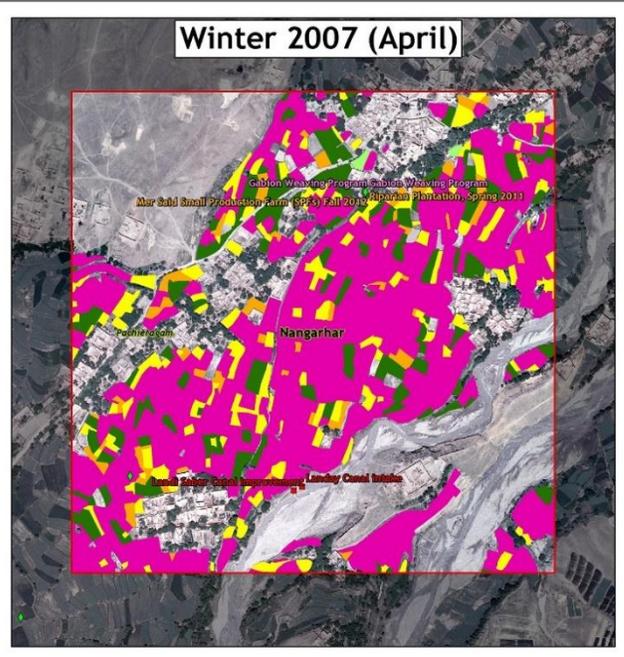
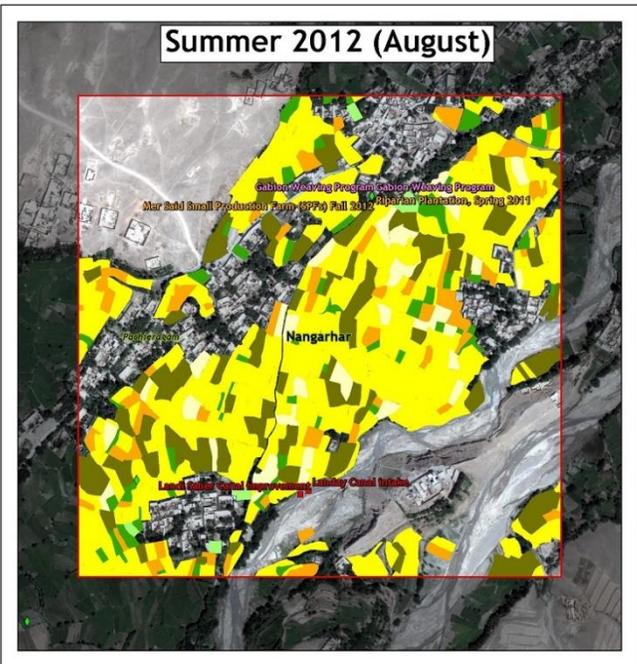
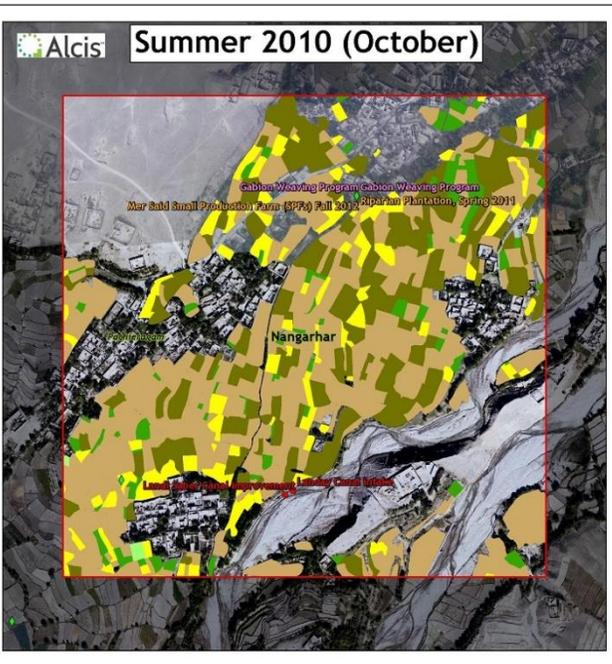
- Wheat Rice
- Poppy Maize
- Orchard Orchard
- Vineyard Vegetables
- Other Other
- Prepared Prepared
- Harvested Harvested



RS5	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	13.6	0.1	2.8	5.9	0.0	26.9	49.3
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	3.5	10.0	0.5	3.0	29.5	4.5	0.0	50.9
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS5	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	7.4	34.6	0.1	0.0	6.4	2.3	50.8
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	21.3	25.7	0.4	0.0	3.2	1.5	52.1
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	6.0	36.9	0.0	0.0	5.7	1.1	49.7



Data Notes
Field boundaries captured and classified by Alcis

Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - TNV; 2012 - Quickbird; 2014 - WorldView 2;
Summer Imagery: 2010 - Buckeye; 2012 - WorldView 2

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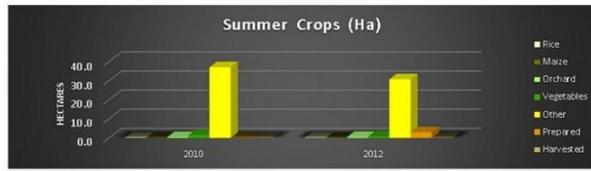


IDEA NEW POPPY EVALUATION

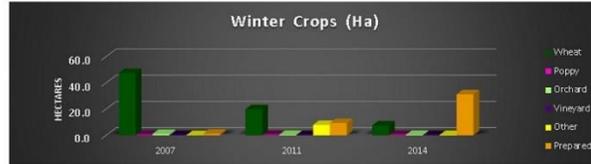
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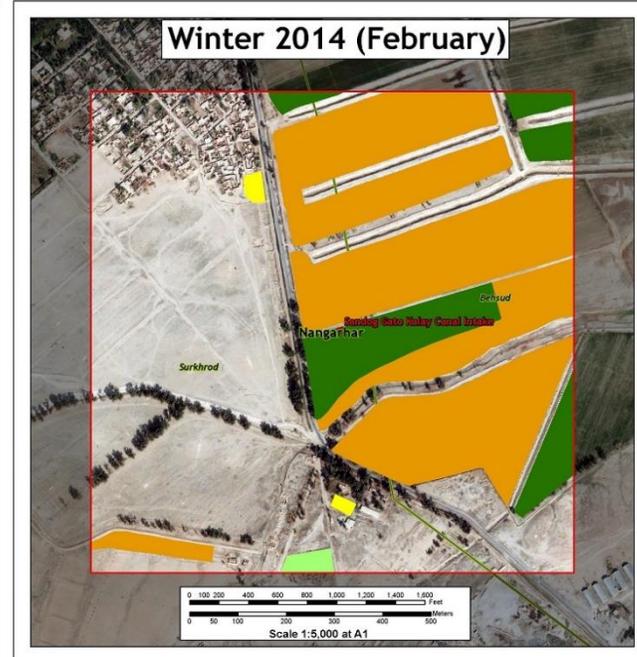
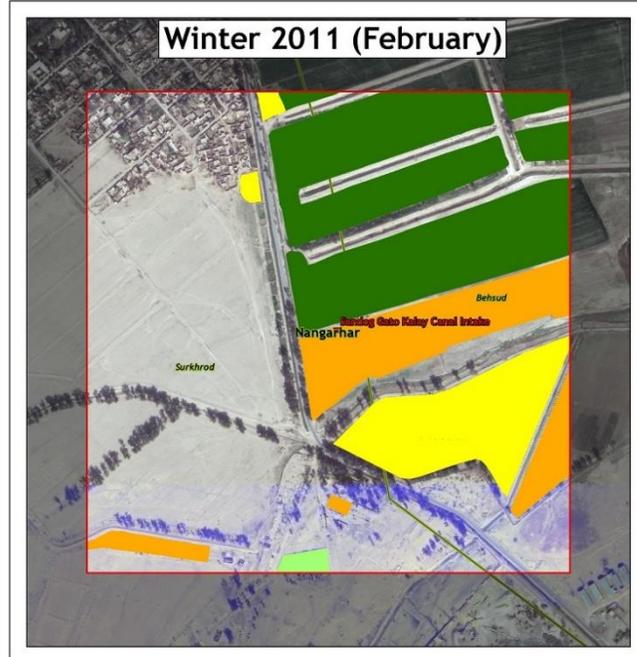
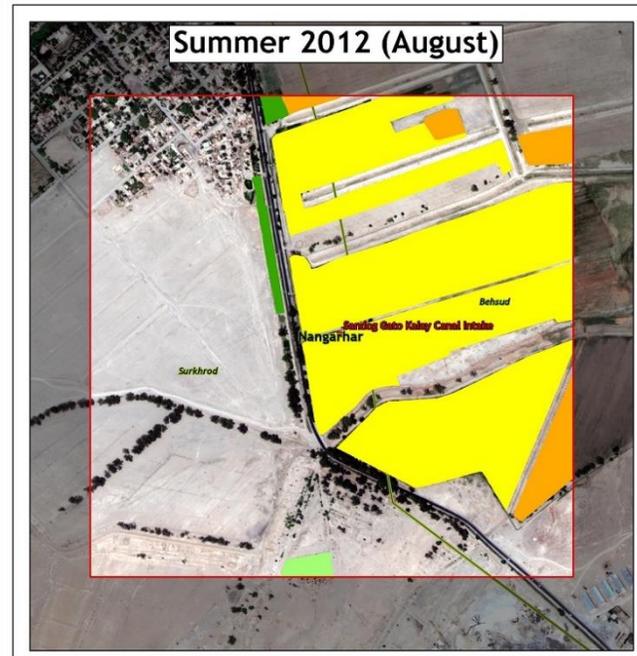
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS6	Summer Crop Types							TOTAL
	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.4	1.4	37.0	0.0	0.0	38.9
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.4	0.8	30.7	2.9	0.0	34.9
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS6	Winter Crop Types							TOTAL
	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	Harvested	
2007	47.5	0.0	1.1	0.0	0.1	1.3	0.0	50.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	20.0	0.0	0.4	0.0	7.9	9.4	0.0	37.7
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	7.6	0.0	0.4	0.0	0.4	31.3	0.0	39.6



Data Notes
Field boundaries captured and classified by Alcis

Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - THW, 2011 - GeoEye, 2014 - GeoEye;
Summer Imagery: 2010 - World View 2, 2012 - World View 2

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
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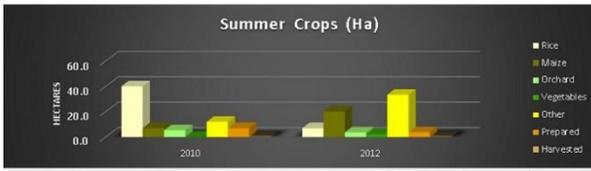


IDEA NEW POPPY EVALUATION Research Site 7 - Crop Analysis

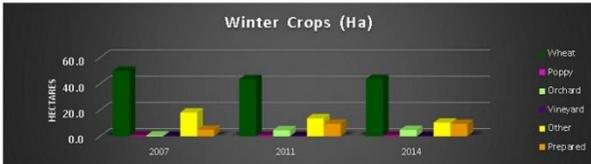
Legend

- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects

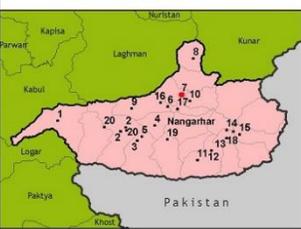
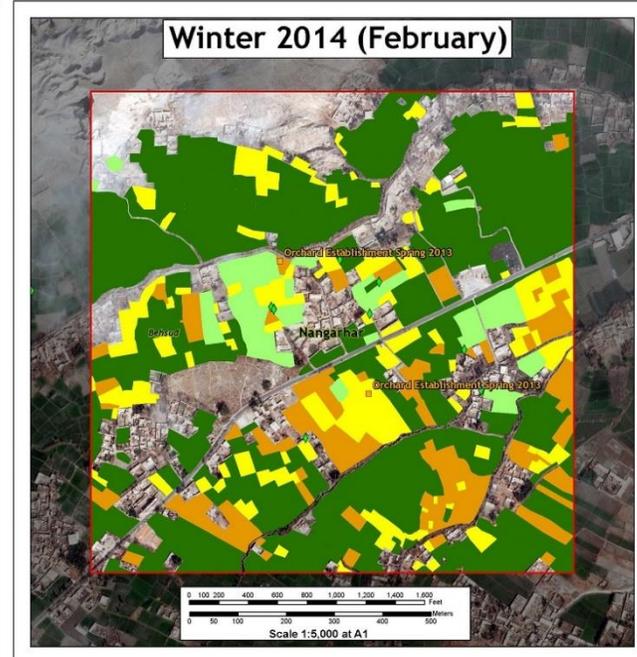
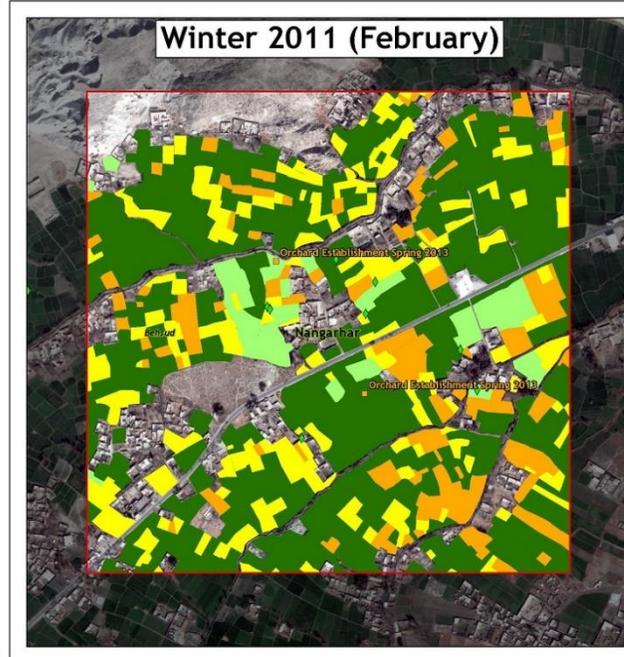
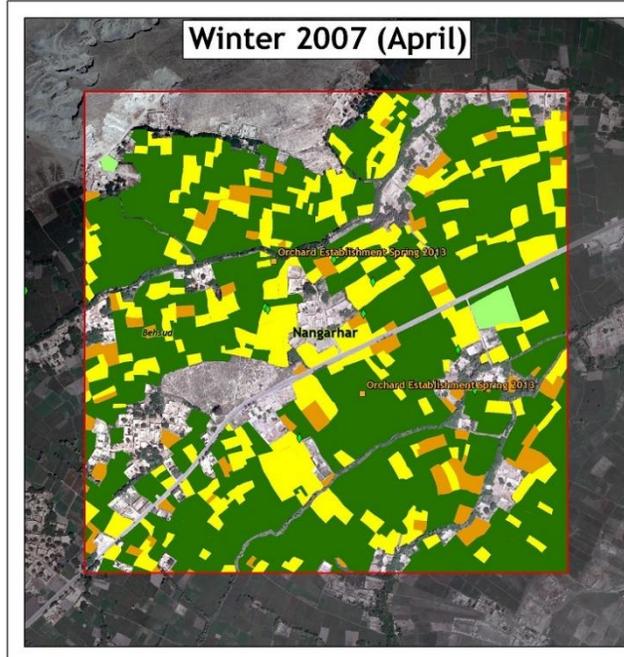
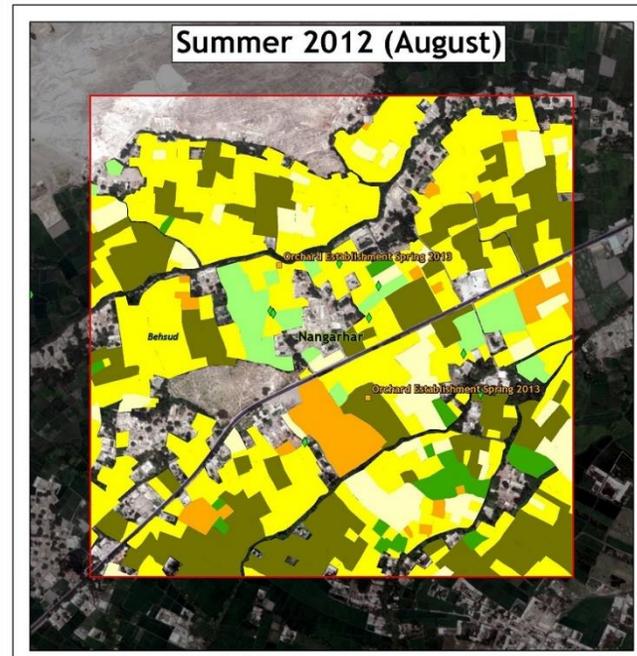
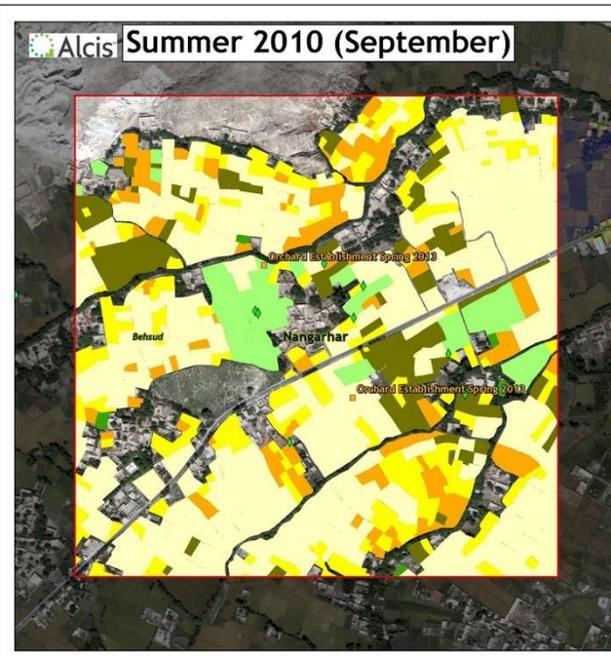
Winter Crop Type	Summer Crop Type
Wheat	Rice
Poppy	Maize
Orchard	Orchard
Vineyard	Vegetables
Other	Other
Prepared	Prepared
	Harvested



RS7	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	40.1	7.1	5.4	0.3	12.1	7.2	0.0	72.1
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	7.1	20.0	3.7	2.2	33.4	3.9	0.0	70.4
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS7	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	49.9	0.0	0.7	0.0	18.1	5.0	73.7
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	43.5	0.0	4.6	0.0	13.7	9.5	71.3
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	43.6	0.0	4.8	0.0	10.3	9.5	68.3



Data Notes
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Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - TFW, 2011 - GeoEye, 2014 - GeoEye;
Summer Imagery: 2010 - World View 2, 2012 - World View 2

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42

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IDEA NEW POPPY EVALUATION

Research Site 8 - Crop Analysis

Legend

Research Sites

IDEA NEW Projects

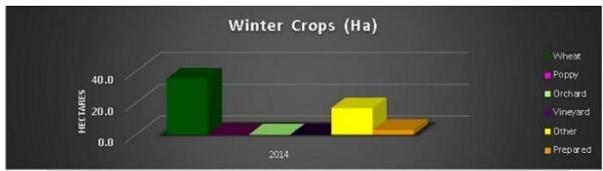
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type

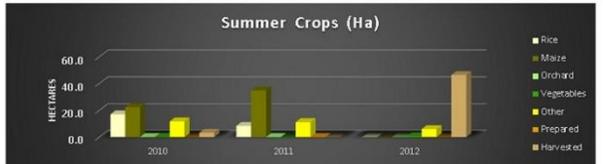
- Wheat
- Poppy
- Orchard
- Vineyard
- Other
- Prepared

Summer Crop Type

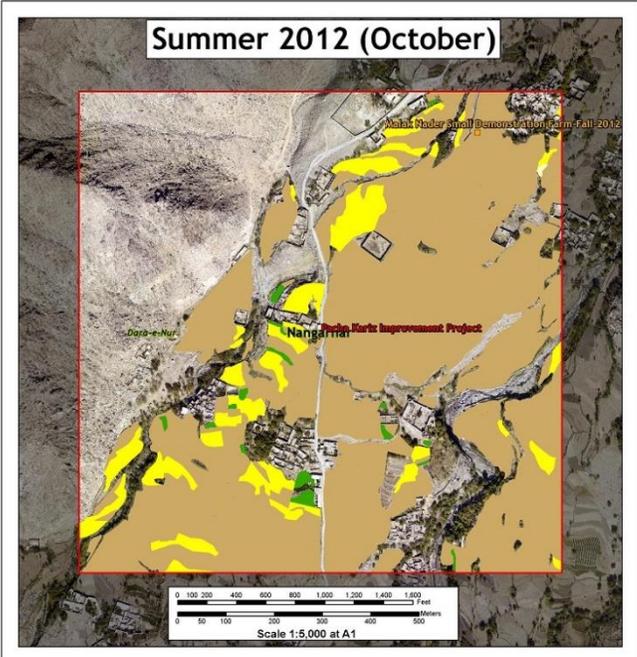
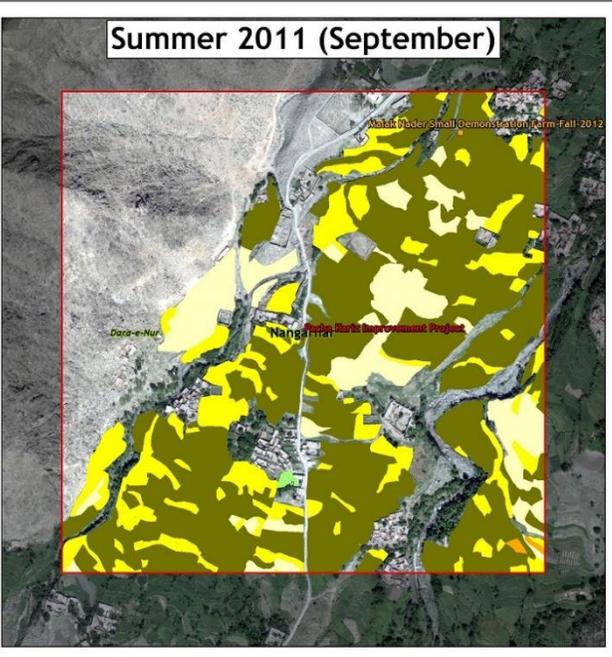
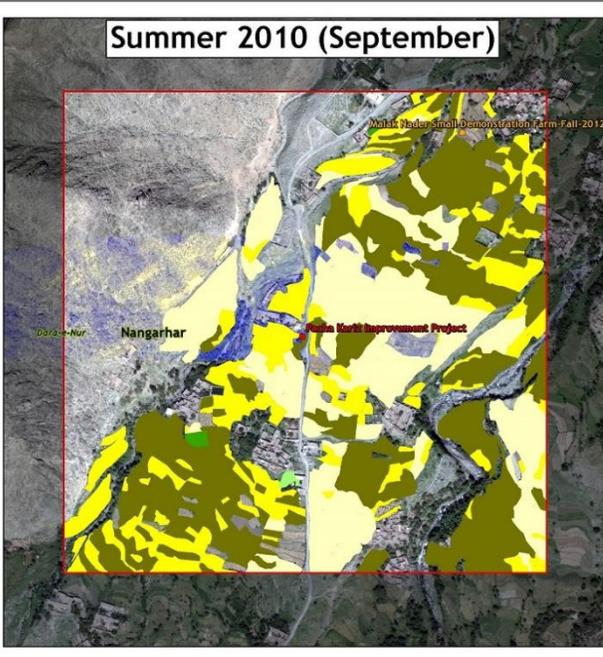
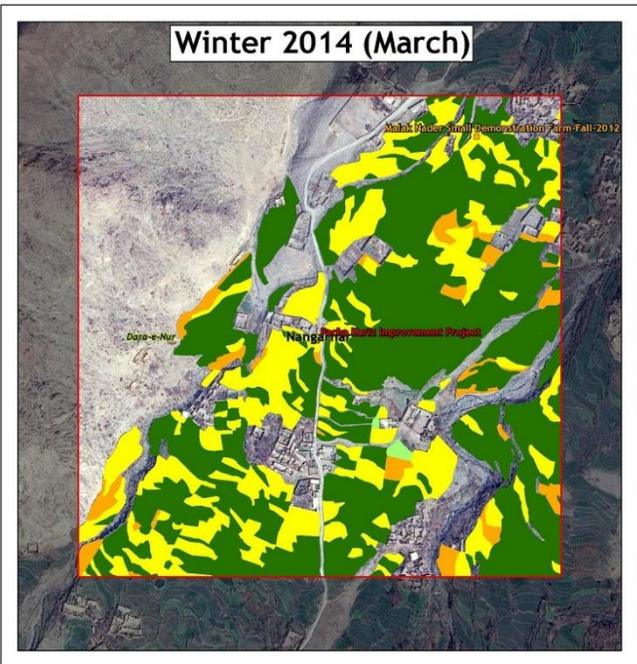
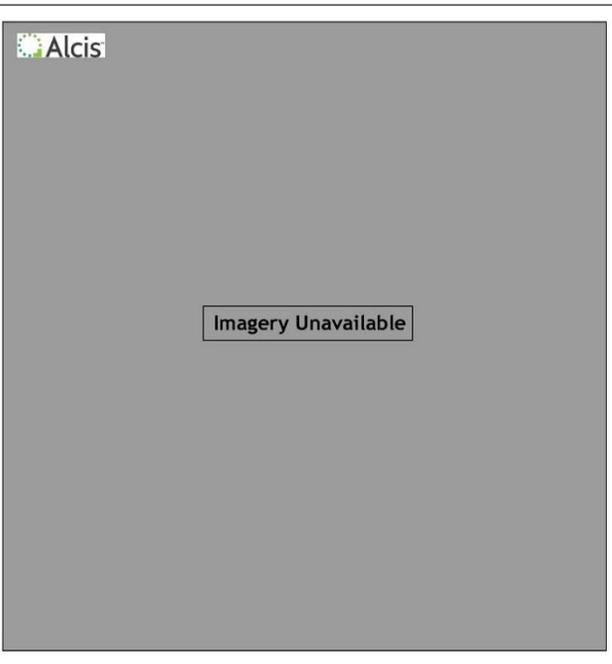
- Rice
- Maize
- Orchard
- Vegetables
- Other
- Prepared
- Harvested



	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	35.4	0.0	0.2	0.0	16.7	3.0	55.3



	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	17.0	22.5	0.1	0.2	11.7	0.0	3.3	54.8
2011	8.4	35.0	0.1	0.0	11.2	0.1	0.0	54.8
2012	0.1	0.0	0.0	0.6	6.0	0.0	46.4	53.1
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Data Notes

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Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2014 - World View 2
 Summer Imagery: 2010 - World View 2, 2011 - World View 2, 2012 - World View 2

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IDEA NEW POPPY EVALUATION

Research Site 9 - Crop Analysis

Legend

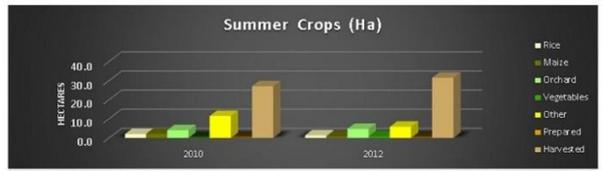
Research Sites

IDEA NEW Projects

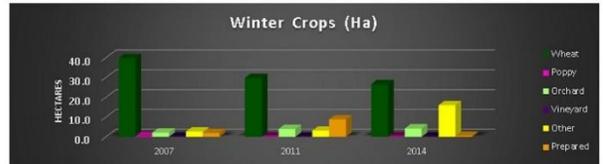
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type Summer Crop Type

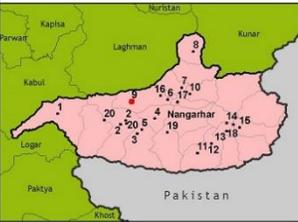
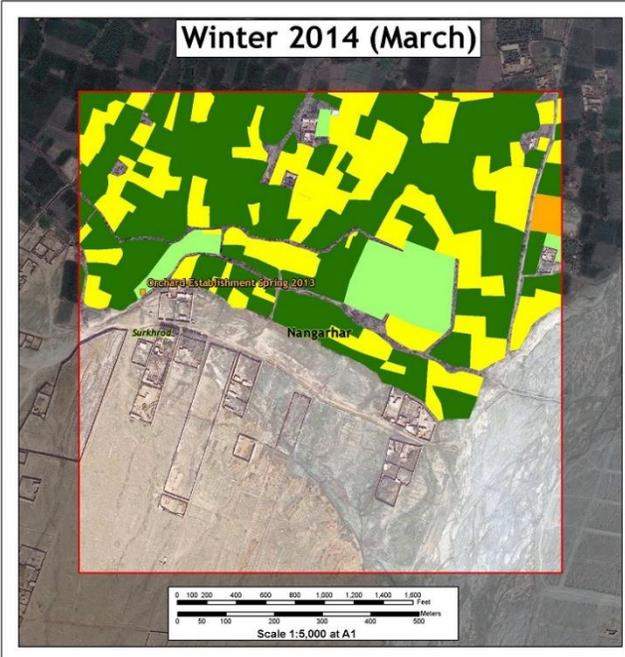
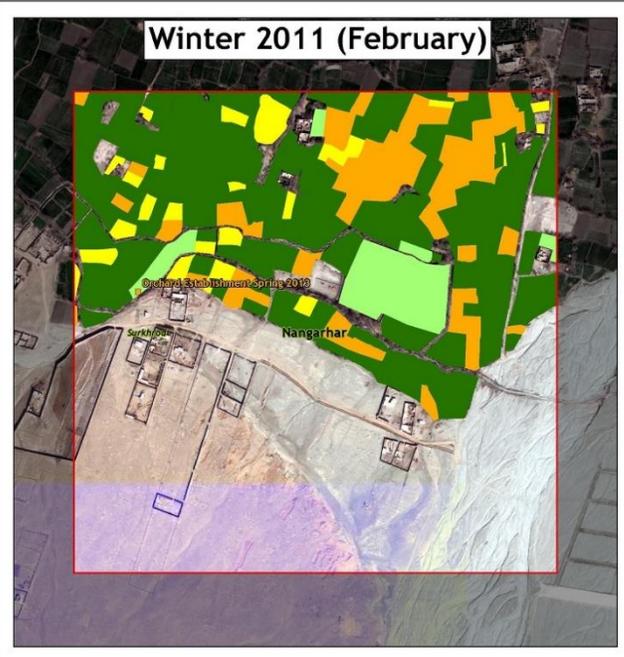
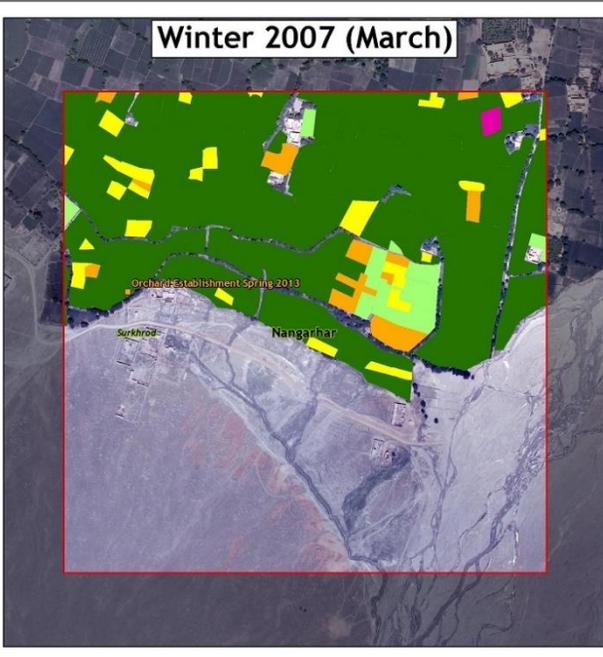
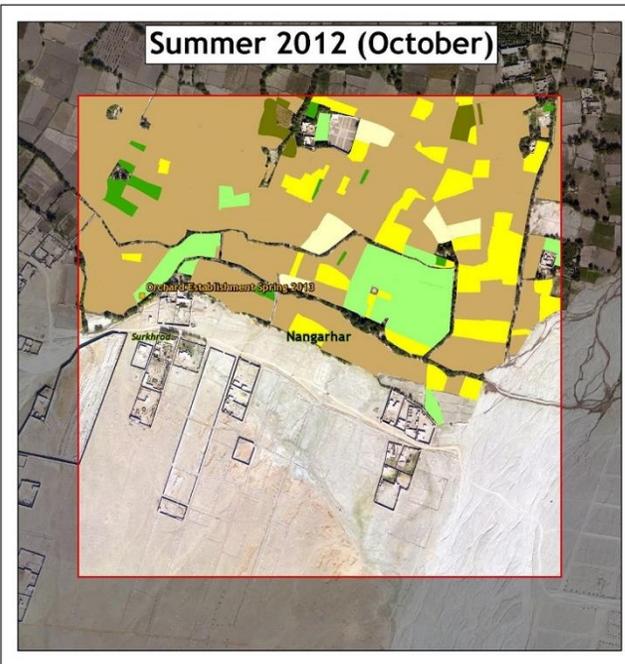
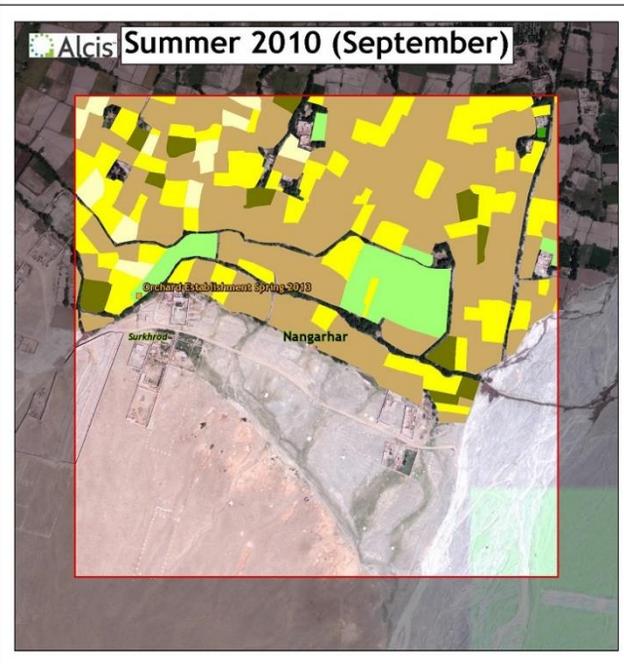
- Wheat
- Poppy
- Orchard
- Vineyard
- Other
- Prepared
- Harvested
- Rice
- Maize
- Orchard
- Vegetables
- Other
- Prepared
- Harvested



RS9	Summer Crop Types							TOTAL
	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	2.0	2.1	4.0	0.0	11.5	0.0	27.1	46.8
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	1.4	0.8	4.7	0.8	5.9	0.0	31.5	45.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS9	Winter Crop Types							TOTAL
	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	Harvested	
2007	39.7	0.2	2.1	0.0	2.6	1.9	46.6	
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2011	29.7	0.0	4.0	0.0	3.1	8.8	45.6	
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2014	26.6	0.0	4.2	0.0	15.9	0.5	47.2	



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TiW; 2011 - GeoEye; 2014 - World View 2
 Summer Imagery: 2010 - World View 2; 2012 - Buckeye

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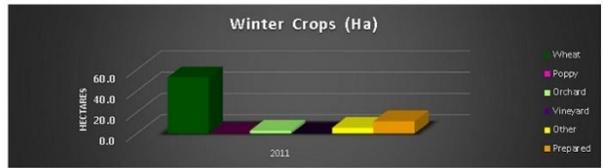


IDEA NEW POPPY EVALUATION

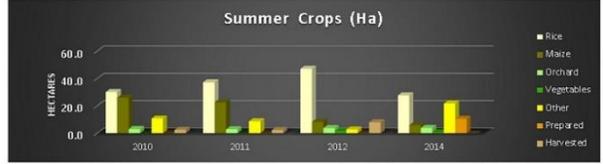
Research Site 10 - Crop Analysis

Legend

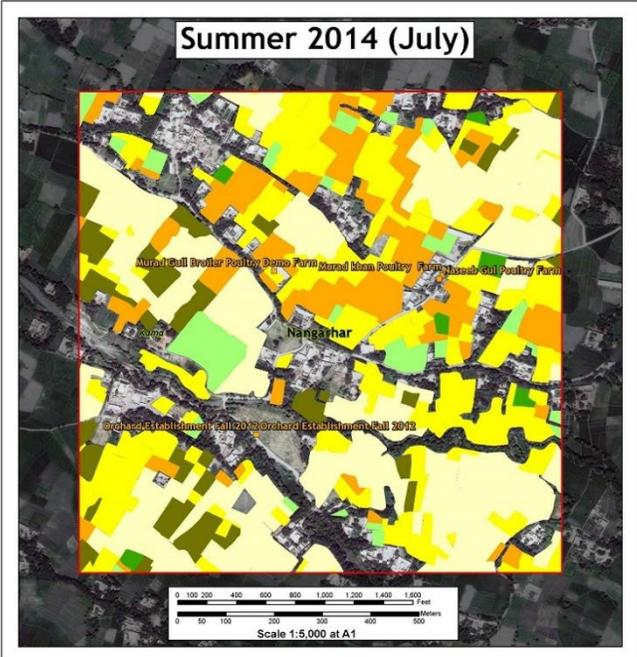
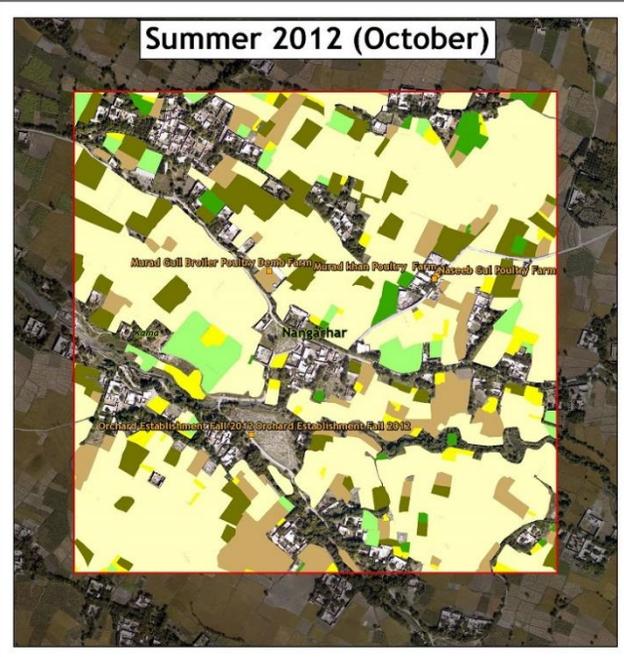
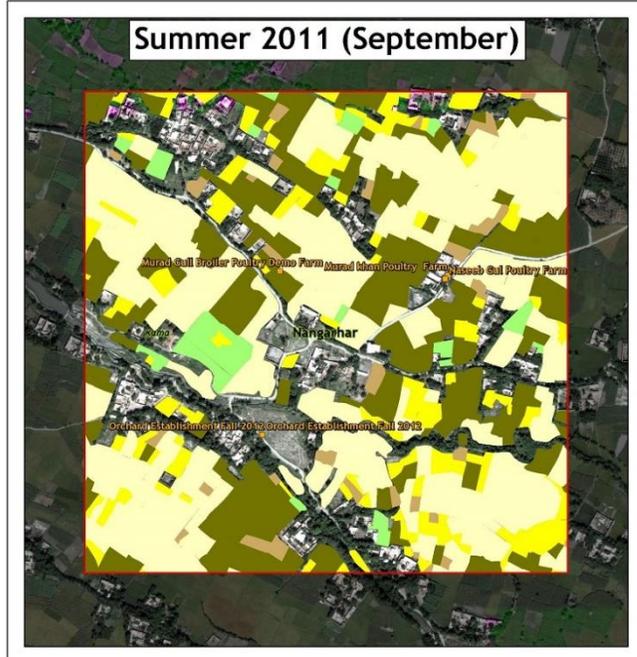
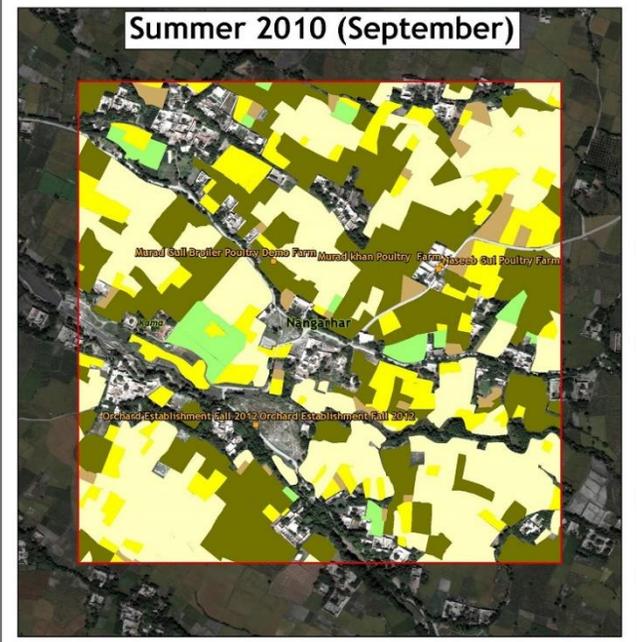
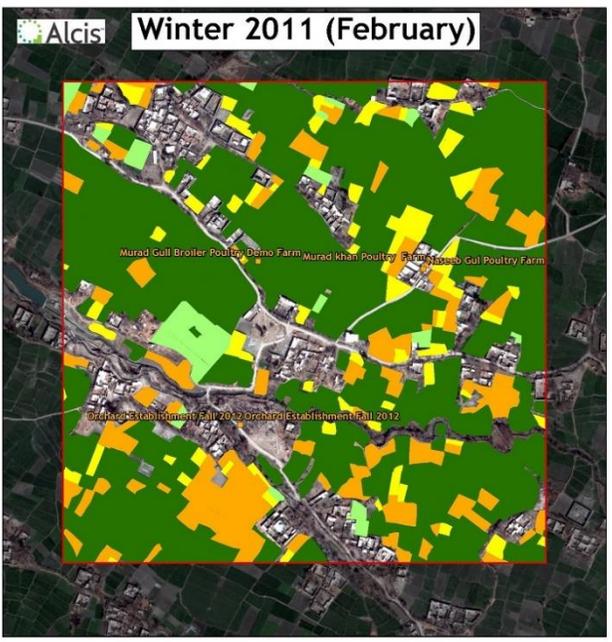
- Research Sites
- IDEA NEW Projects
 - Agribusness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS10	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	53.0	0.0	2.7	0.0	5.4	11.6	72.7
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS10	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	30.2	26.0	3.0	0.0	10.8	0.0	2.5	72.5
2011	37.2	22.5	2.9	0.0	8.8	0.0	2.4	73.7
2012	47.2	8.2	3.8	1.6	2.8	0.0	8.0	71.5
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	27.7	5.9	3.9	0.8	21.7	10.6	0.0	70.5



Data Notes
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Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - TiV
Summer Imagery: 2010 - World View 2; 2011 - World View 2; 2012 - Buckeye; 2014 - World View 2

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IDEA NEW POPPY EVALUATION

Research Site 11 - Crop Analysis

Legend

Research Sites

IDEA NEW Projects

- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type

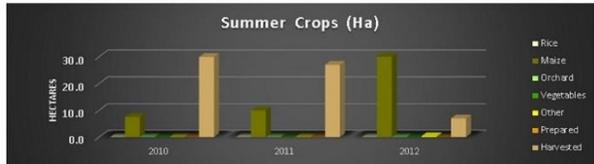
- Wheat
- Poppy
- Orchard
- Vineyard
- Other
- Prepared

Summer Crop Type

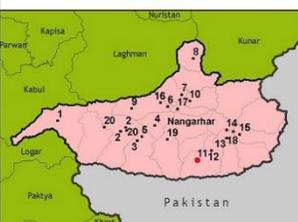
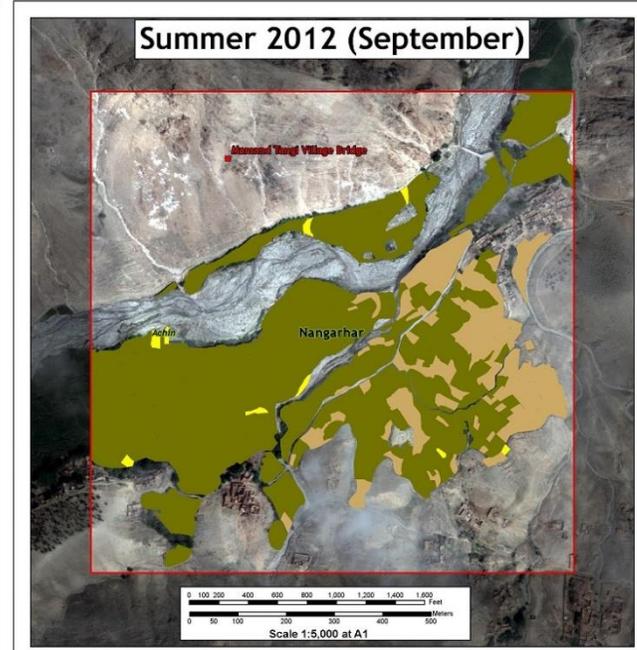
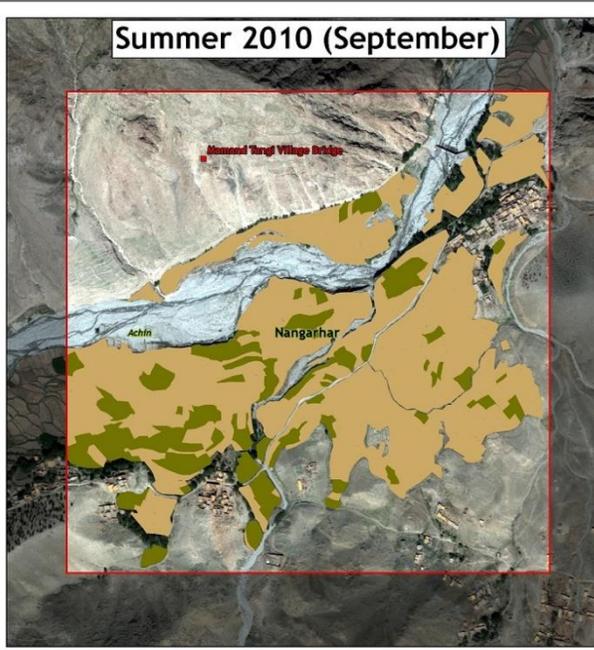
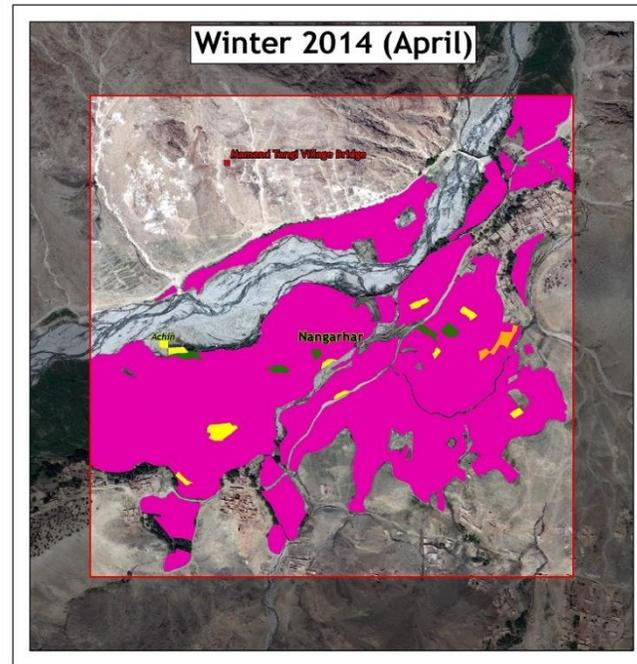
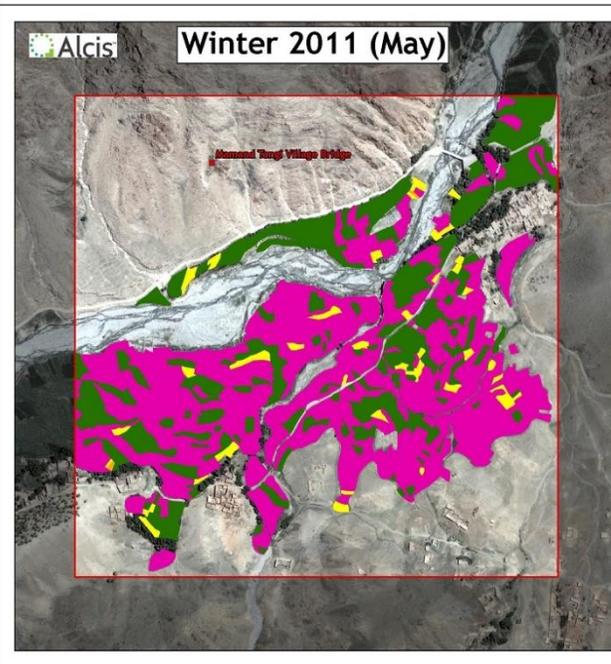
- Rice
- Maize
- Orchard
- Vegetables
- Other
- Prepared
- Harvested



	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	12.5	0.0	0.0	1.5	0.0	37.6
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.3	35.8	0.0	0.0	0.5	0.1	36.8



	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	7.5	0.0	0.0	0.0	0.0	29.9	37.5
2011	0.0	10.0	0.0	0.0	0.0	0.0	27.0	37.5
2012	0.0	30.0	0.0	0.0	0.3	0.0	7.0	37.3
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Data Notes

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Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TNW, 2014 - World View 2
 Summer Imagery: 2010 - World View 2, 2011 - Quickbird, 2012 - World View 2

Coordinate System Information

Universal Transverse Mercator
 World Geographic System 84
 Zone 42

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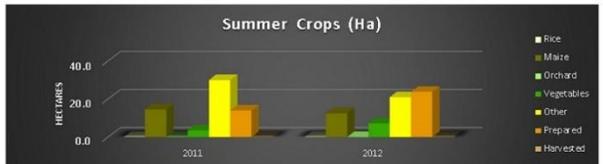


IDEA NEW POPPY EVALUATION

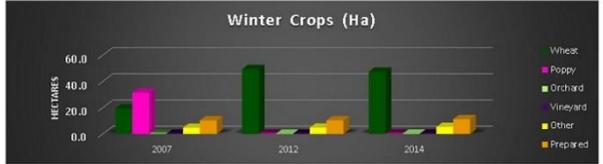
Research Site 13 - Crop Analysis

Legend

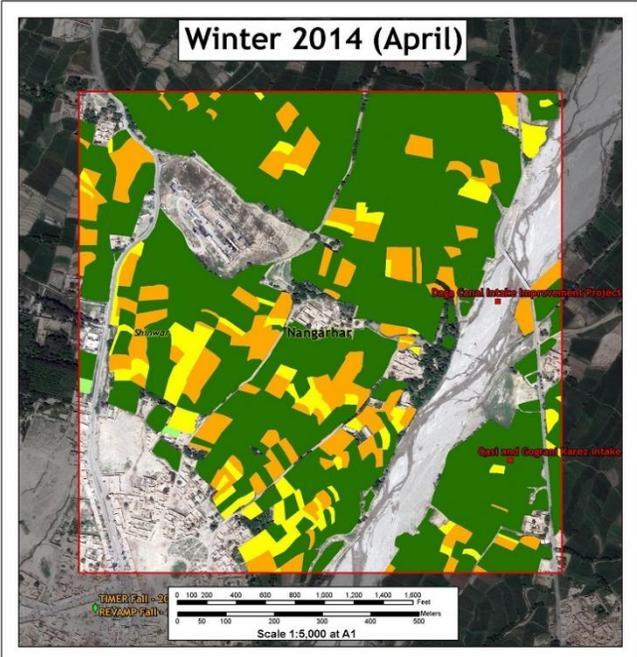
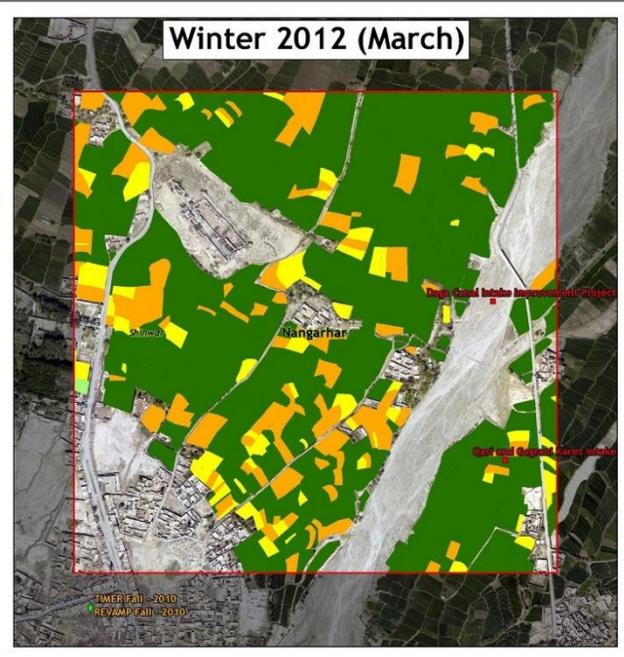
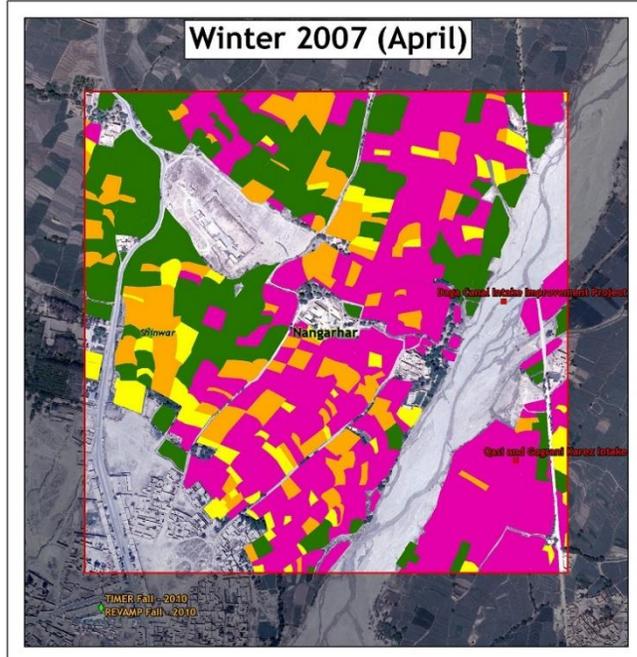
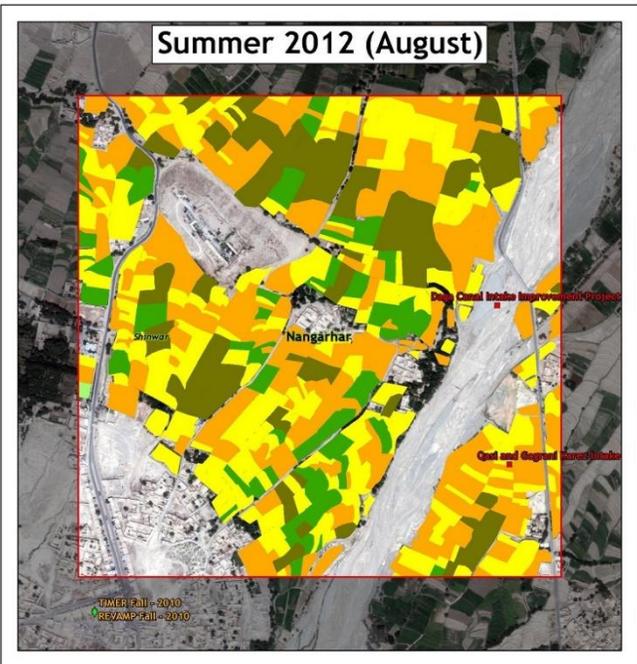
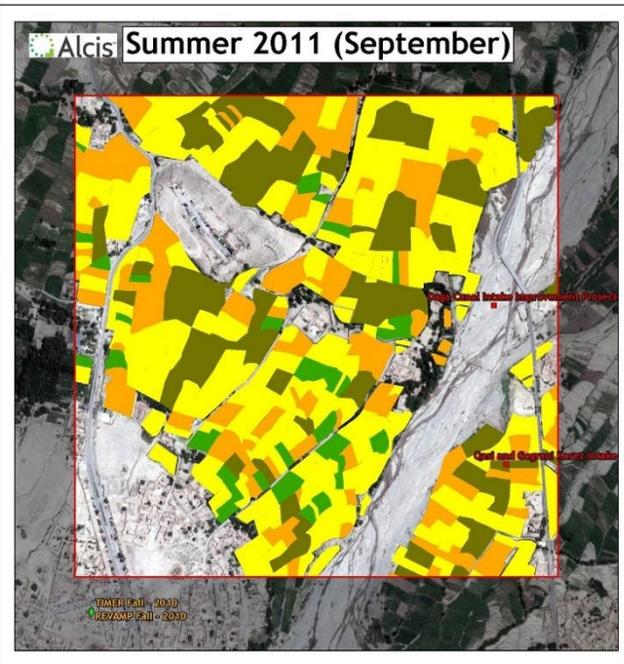
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS13	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	14.5	0.0	3.5	30.1	14.0	0.0	62.1
2012	0.0	12.5	0.1	7.2	21.0	23.8	0.0	64.6
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS13	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	19.4	31.6	0.0	0.0	4.6	10.3	65.9
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	49.4	0.0	0.1	0.0	4.7	10.3	64.6
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	47.4	0.0	0.1	0.0	5.3	11.2	64.0



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TiW; 2012 - Buckeye; 2014 - World View 2
 Summer Imagery: 2011 - World View 2; 2012 - World View 2

Coordinate System Information

Universal Transverse Mercator
 World Geographic System 84
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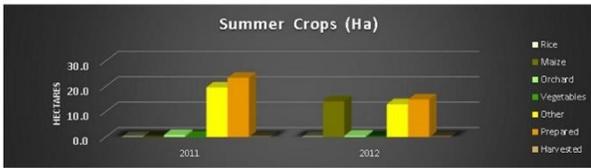


IDEA NEW POPPY EVALUATION

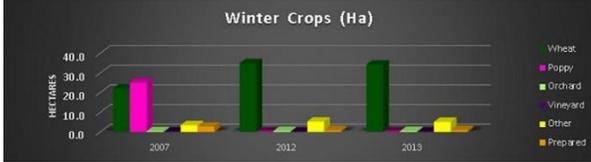
Research Site 14 - Crop Analysis

Legend

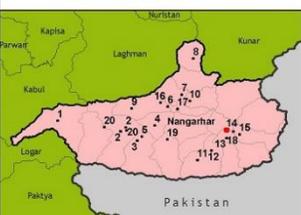
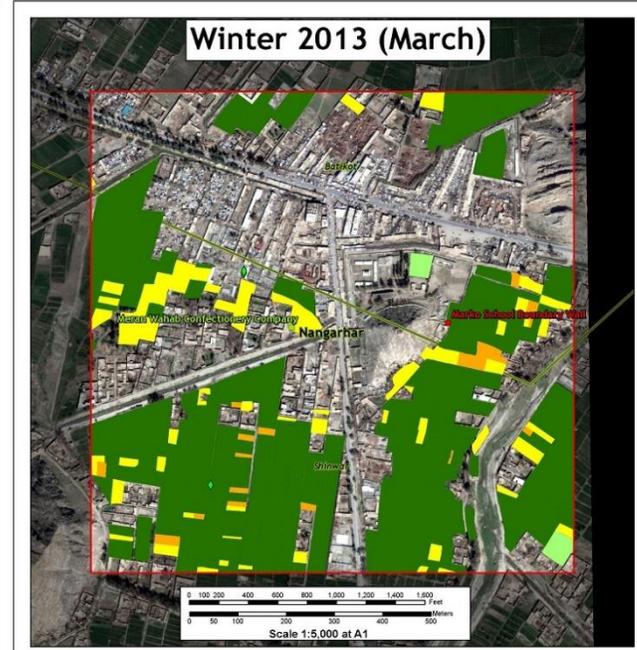
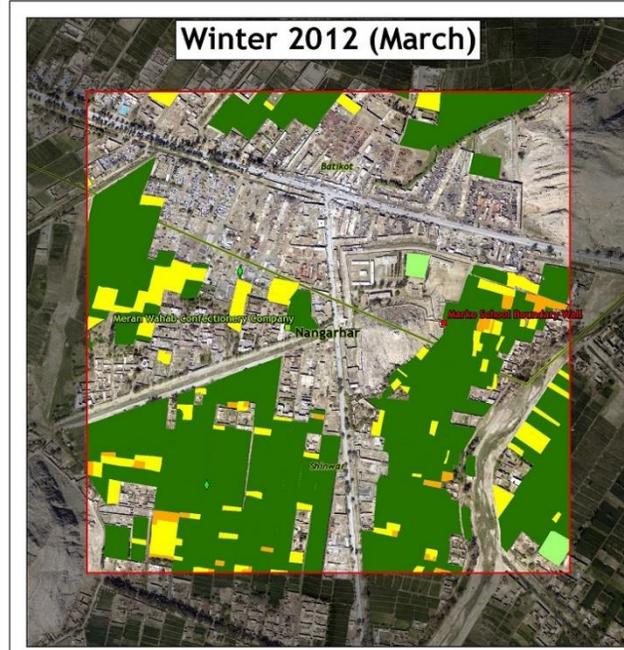
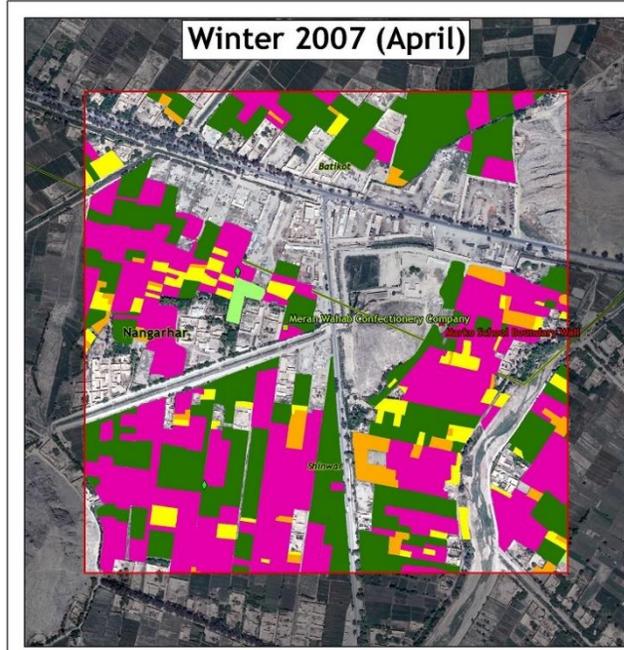
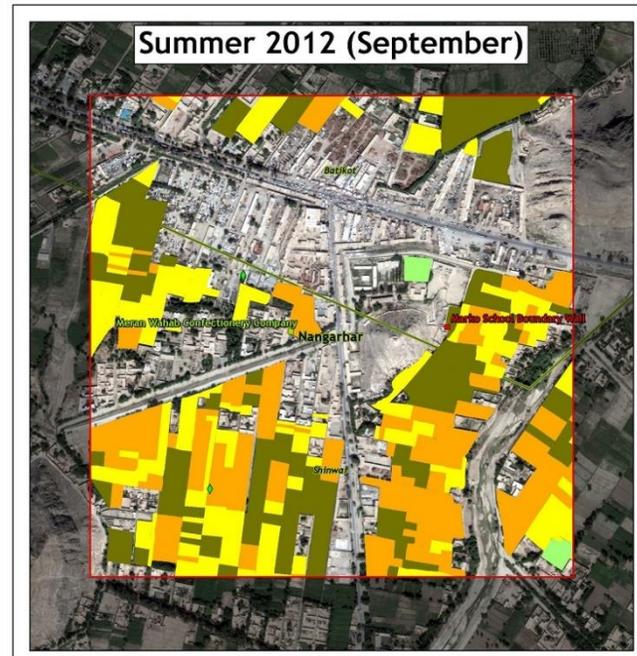
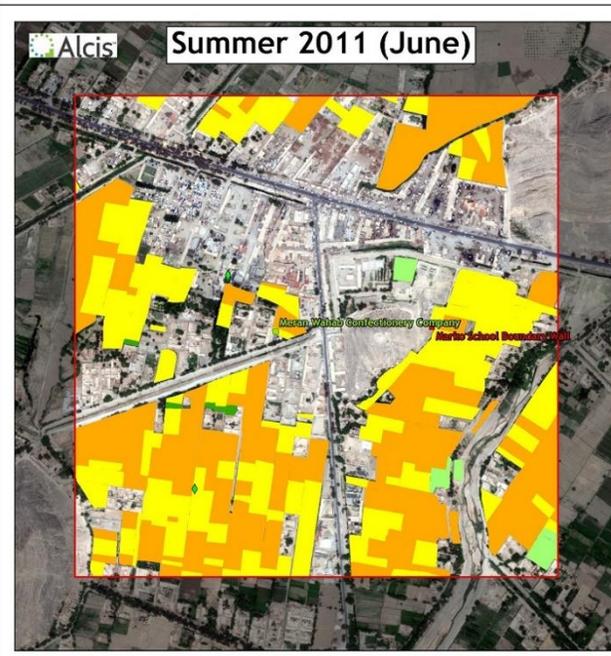
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS14	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.8	0.2	19.6	23.4	0.0	44.0
2012	0.0	14.2	0.5	0.0	13.0	14.8	0.0	42.5
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS14	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	22.2	25.0	0.4	0.0	3.4	2.7	53.7
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	35.0	0.0	0.5	0.0	5.3	0.9	41.6
2013	34.2	0.0	0.5	0.0	5.1	0.9	40.8
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Data Notes
Field boundaries captured and classified by Alcis

Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - TIW; 2012 - Buckeye; 2013 - World View 2
Summer Imagery: 2011 - World View 2; 2012 - World View 2

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42

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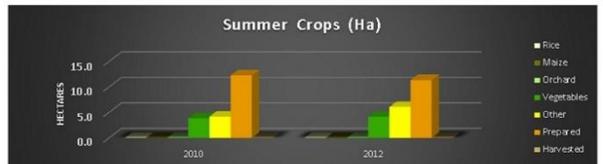


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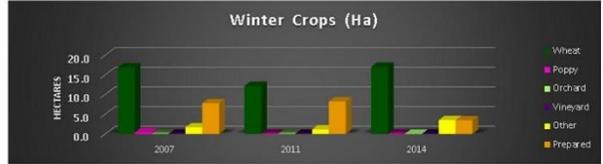
Research Site 16 - Crop Analysis

Legend

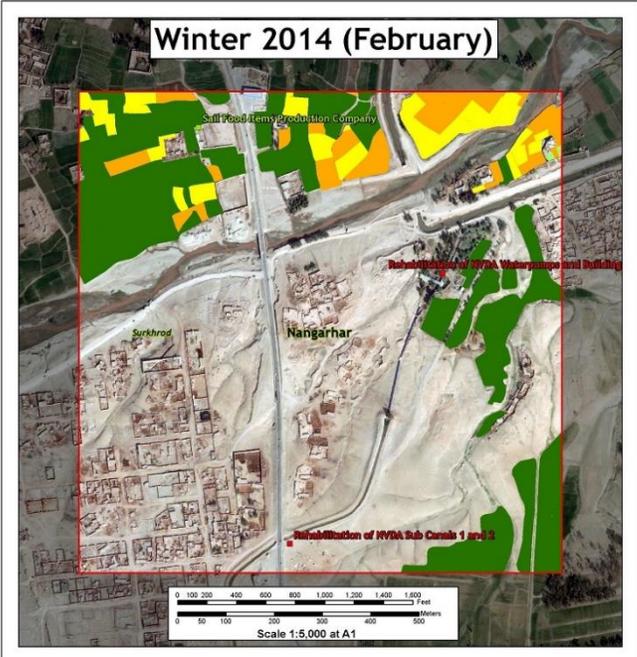
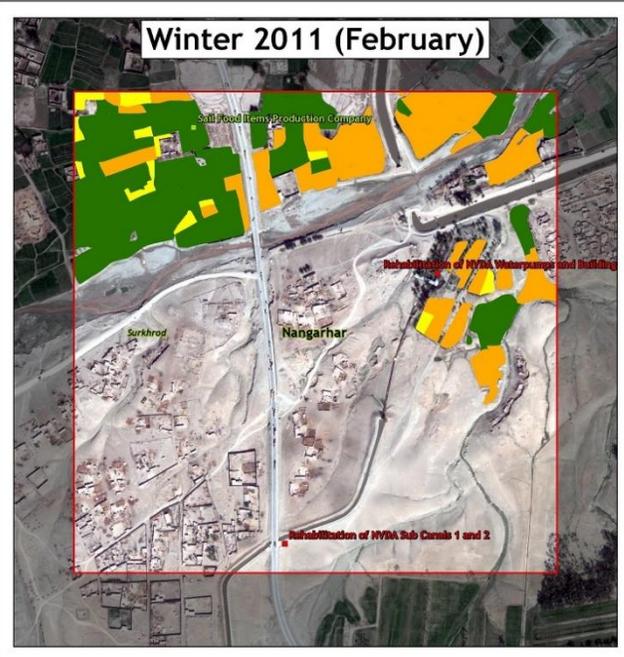
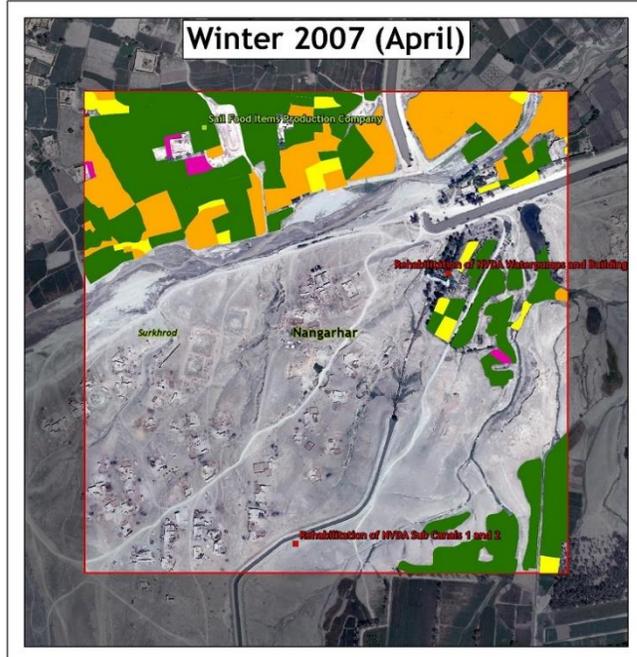
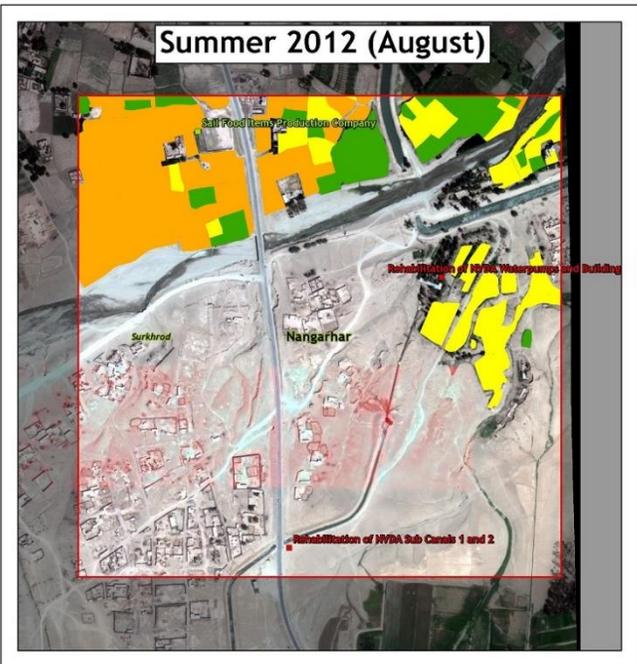
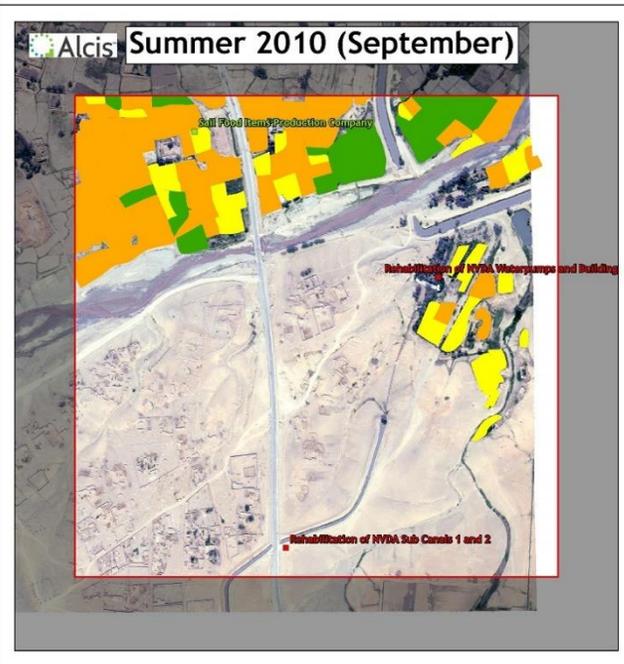
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	3.9	4.2	12.3	0.0	20.3
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	4.1	6.1	11.4	0.0	21.6
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	16.9	0.3	0.0	0.0	1.7	7.8	26.7
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	12.2	0.0	0.0	0.0	1.1	8.3	21.6
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	17.1	0.0	0.0	0.0	3.5	3.4	24.1



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TiW; 2012 - Buckeye; 2014 - World View 2
 Summer Imagery: 2011 - World View 2; 2012 - World View 2

Coordinate System Information

Universal Transverse Mercator
 World Geographic System 84
 Zone 42

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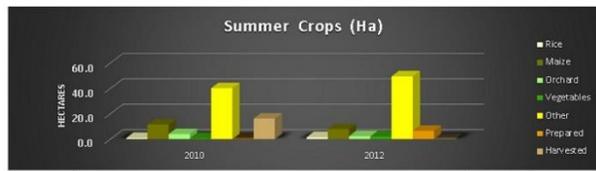


IDEA NEW POPPY EVALUATION

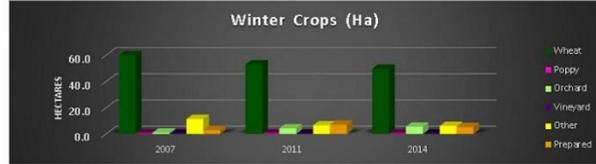
Research Site 17 - Crop Analysis

Legend

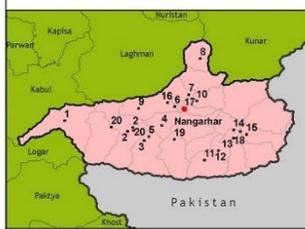
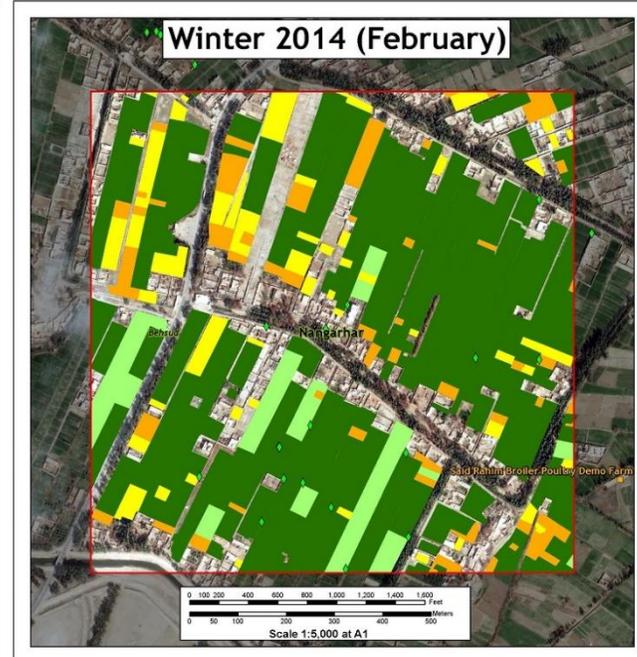
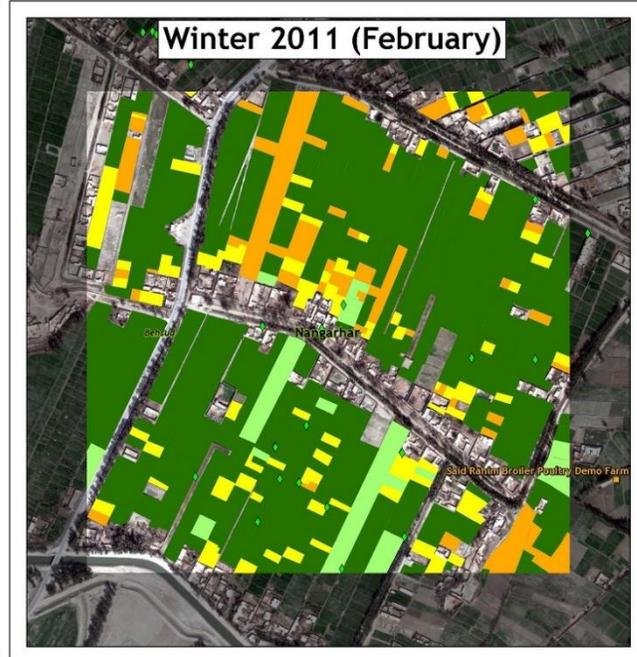
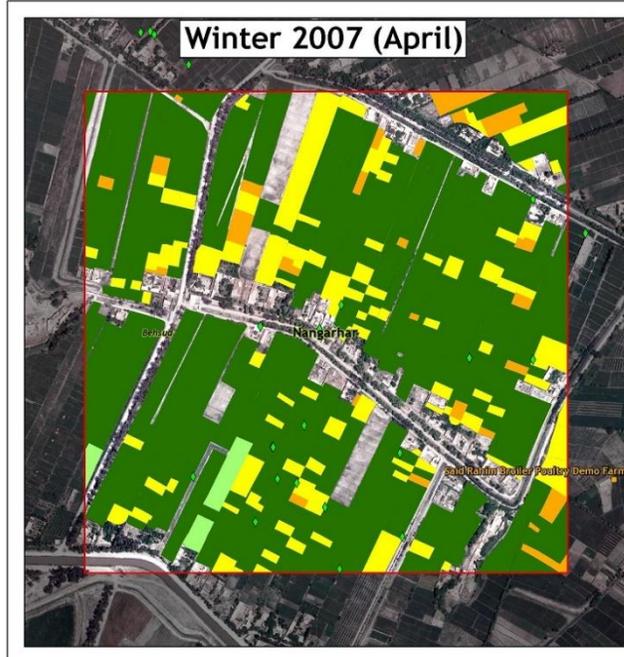
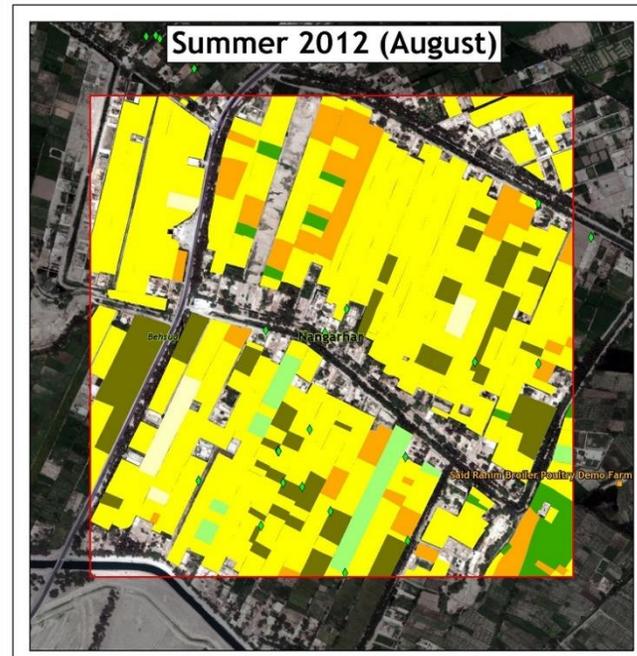
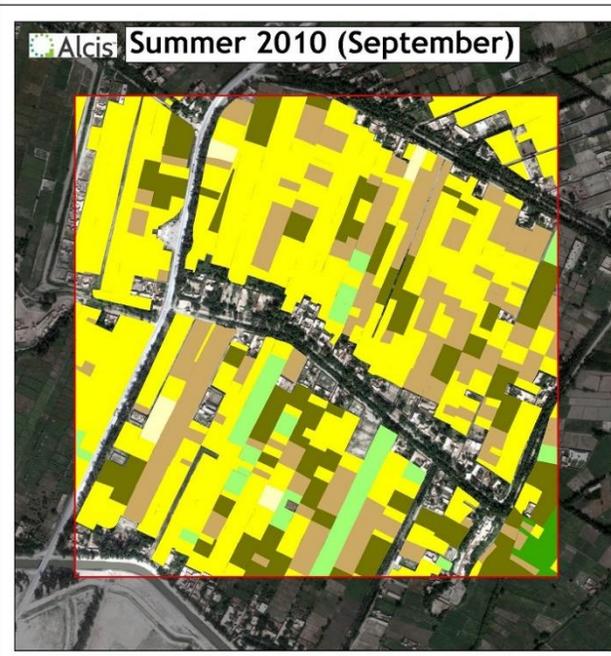
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
 - Harvested
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS17	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.9	11.5	4.0	0.7	40.2	0.0	16.2	73.6
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	1.5	7.9	2.3	2.0	49.6	6.6	0.0	69.9
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS17	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	59.9	0.0	1.0	0.0	11.4	2.8	75.2
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	53.1	0.0	4.2	0.0	6.5	7.0	70.8
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	49.6	0.0	5.5	0.0	6.1	5.3	66.4



Data Notes
Field boundaries captured and classified by Alcis

Data Sources
Boundaries supplied by NGA
Winter Imagery: 2007 - TiW; 2011 - GeoEye; 2014 - GeoEye
Summer Imagery: 2010 - World View 2; 2012 - World View 2

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42

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IDEA NEW POPPY EVALUATION

Research Site 19 - Crop Analysis

Legend

Research Sites

IDEA NEW Projects

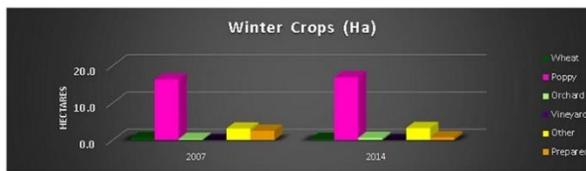
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ALP Projects

Winter Crop Type

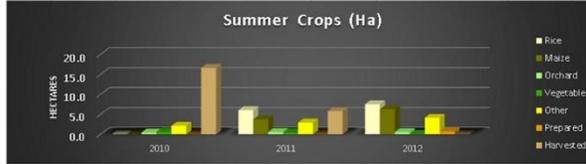
- Wheat
- Poppy
- Orchard
- Vineyard
- Other
- Prepared
- Harvested

Summer Crop Type

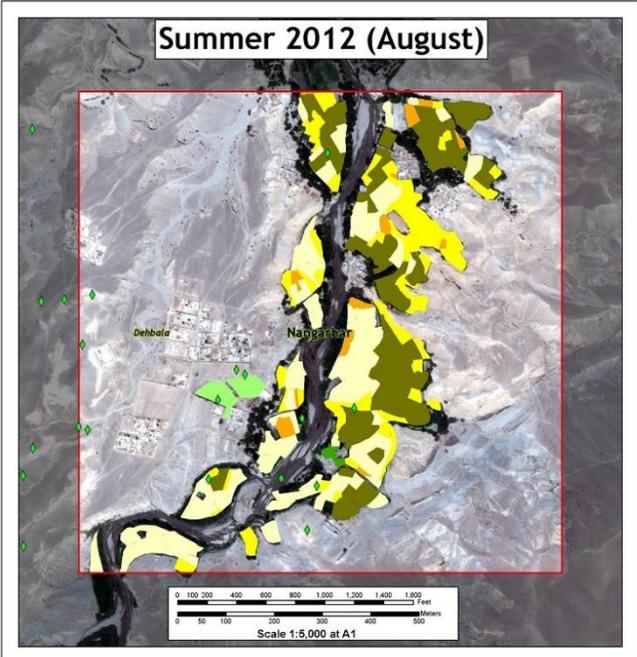
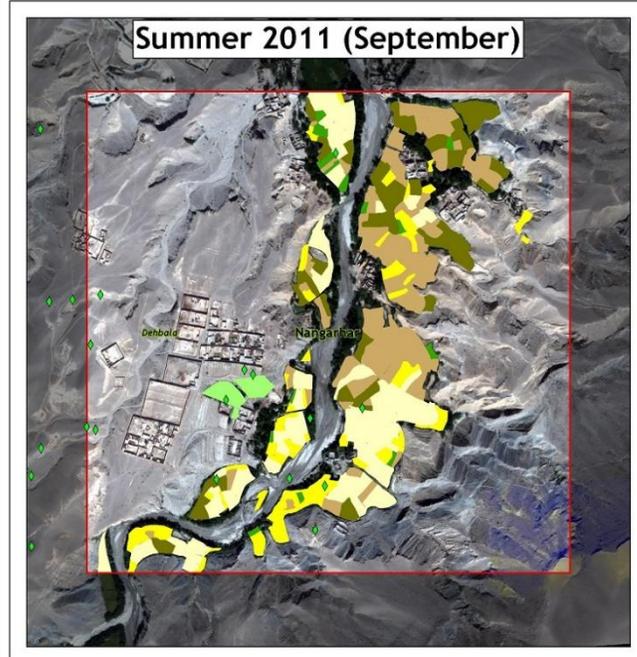
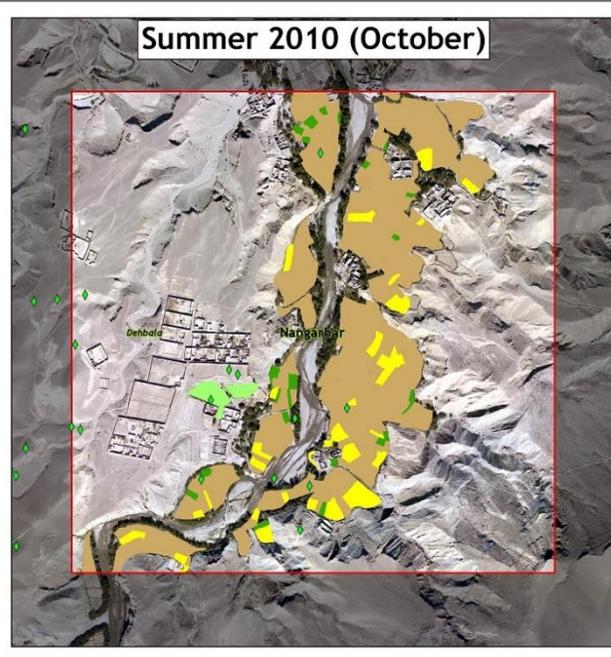
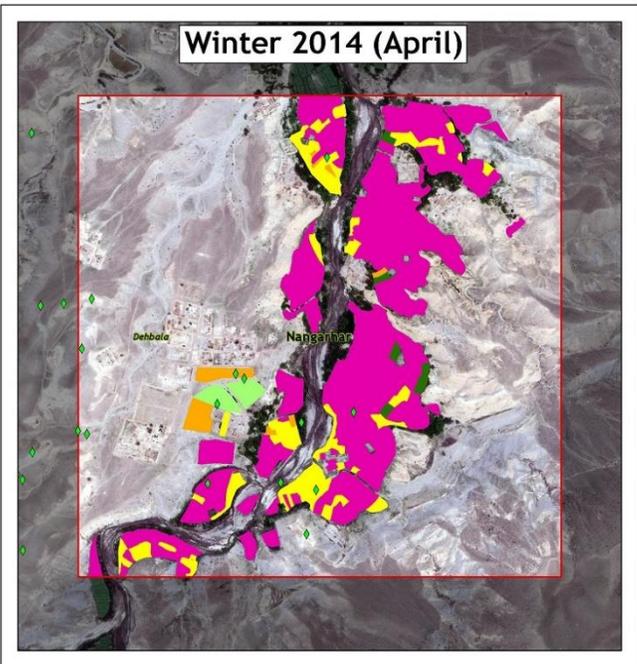
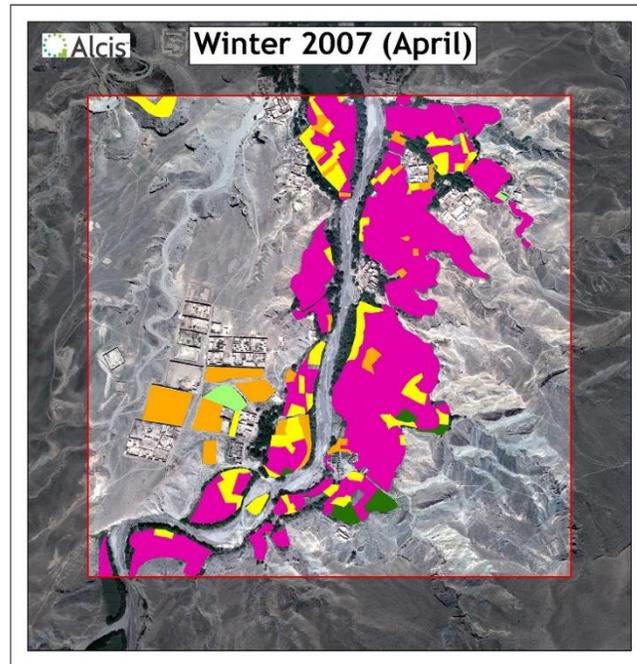
- Rice
- Maize
- Orchard
- Vegetables
- Other
- Prepared
- Harvested



RS19	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	0.6	16.3	0.3	0.0	0.0	2.5	22.8
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.3	16.9	0.6	0.0	3.2	0.8	21.8



RS19	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.5	0.6	2.1	0.0	16.6	19.8
2011	6.0	3.7	0.6	0.5	2.9	0.0	5.8	19.6
2012	7.5	6.3	0.6	0.1	4.1	0.7	0.0	19.3
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TMV; 2014 - World View 2
 Summer Imagery: 2010 - Buckeye; 2011 - World View 2; 2012 - World View 2

Coordinate System Information

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 World Geographic System 84
 Zone 42

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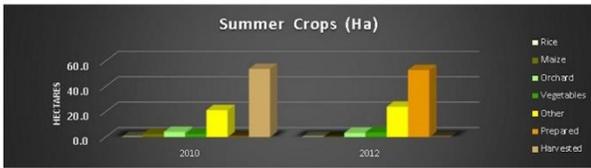


IDEA NEW POPPY EVALUATION

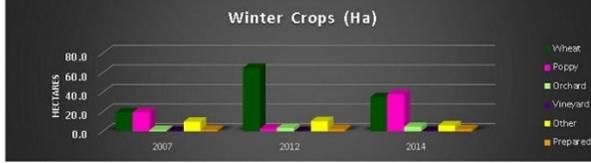
Research Site 20 - Crop Analysis

Legend

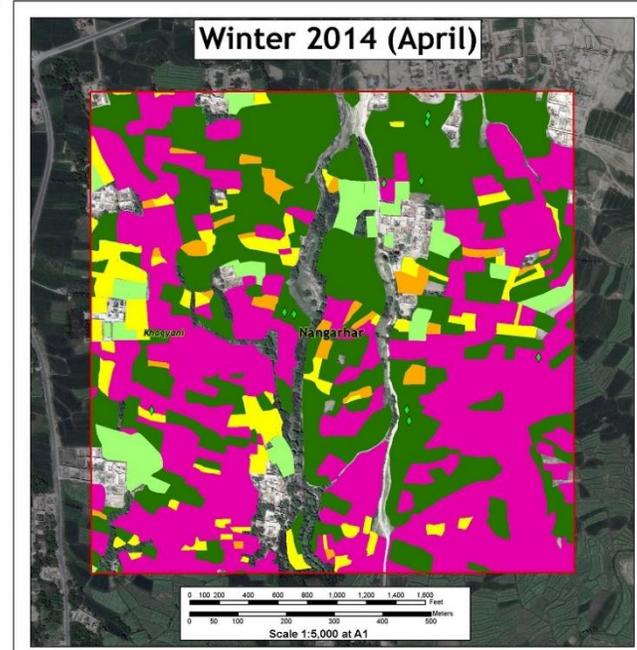
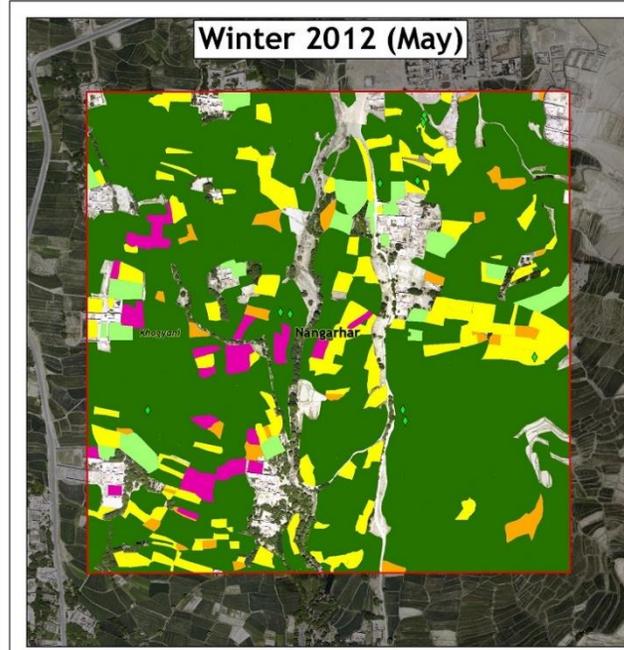
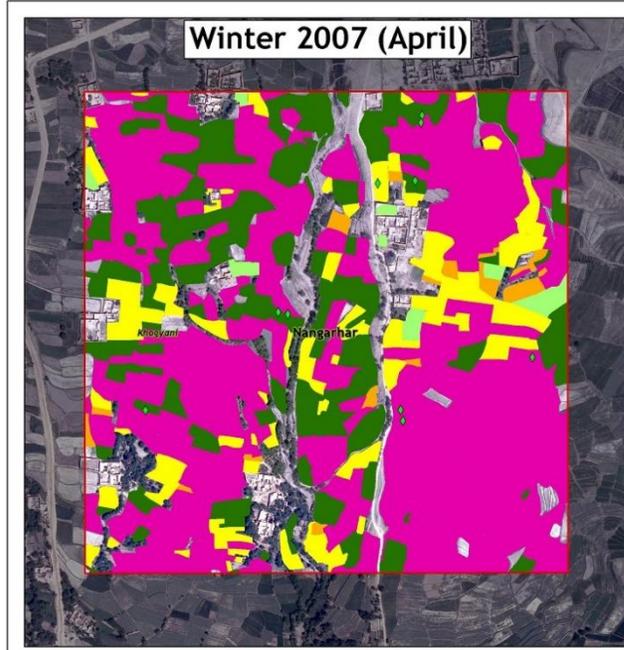
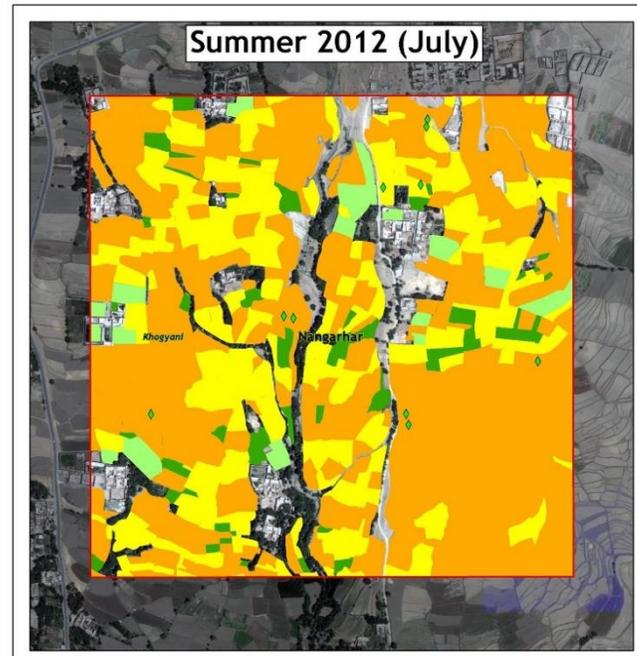
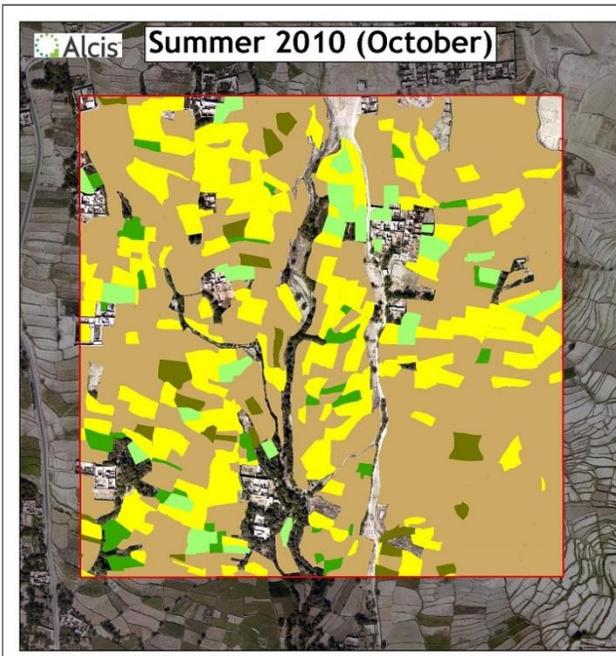
- Research Sites
- IDEA NEW Projects
 - Agribusiness
 - Infrastructure
 - Capacity Building
 - Gender
 - Legacy Projects
 - ALP Projects
- Winter Crop Type
 - Wheat
 - Poppy
 - Orchard
 - Vineyard
 - Other
 - Prepared
- Summer Crop Type
 - Rice
 - Maize
 - Orchard
 - Vegetables
 - Other
 - Prepared
 - Harvested



RS20	Rice	Maize	Orchard	Vegetables	Other	Prepared	Harvested	TOTAL
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	2.5	4.1	2.5	21.2	0.0	53.8	84.1
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	3.3	3.8	23.9	52.9	0.0	83.8
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



RS20	Wheat	Poppy	Orchard	Vineyard	Other	Prepared	TOTAL
2007	19.3	19.3	1.3	0.0	9.7	1.4	51.1
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	64.8	2.5	3.3	0.0	10.2	2.1	82.9
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	34.9	37.9	4.5	0.0	6.0	2.1	85.3



Data Notes

Field boundaries captured and classified by Alcis

Data Sources

Boundaries supplied by NGA
 Winter Imagery: 2007 - TIW; 2012 - Buckeye; 2014 - World View 2
 Summer Imagery: 2010 - Buckeye; 2012 - World View 2

Coordinate System Information

Universal Transverse Mercator
 World Geographic System 84
 Zone 42

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Ref: 141023_RS20_Analysis_A11

Produced by Alcis

23rd October 2014



Annex C

IDEA NEW Poppy Evaluation

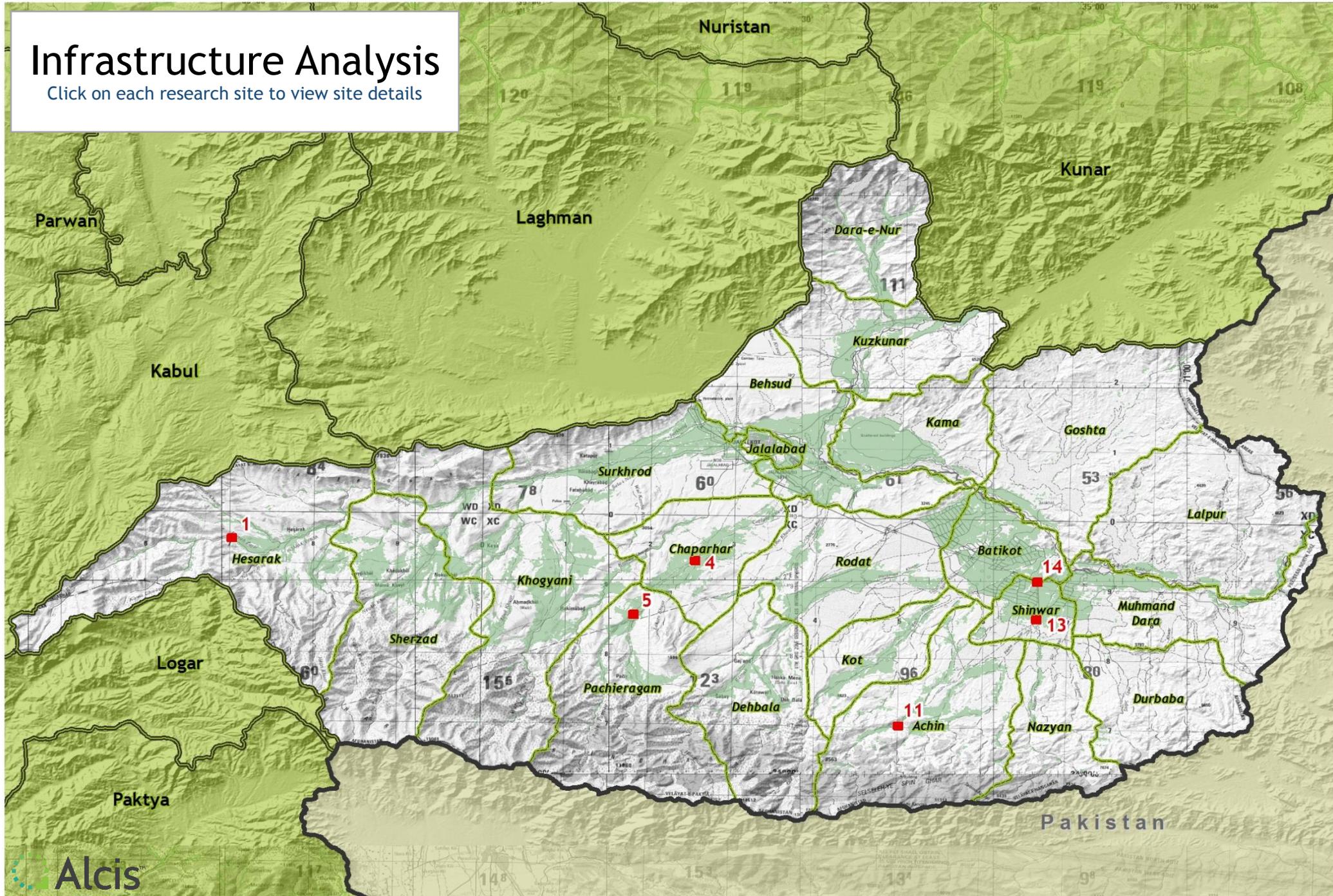
Research Site

Infrastructure Analysis



Infrastructure Analysis

Click on each research site to view site details



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 1

Data Notes

Boundaries created and classified by Alcis

Legend

IDEA NEW Projects

Department

- Agribusiness
- Gender
- Infrastructure
- Institutional Capacity Building
- Legacy Projects

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TiW, 2013 - World View 2

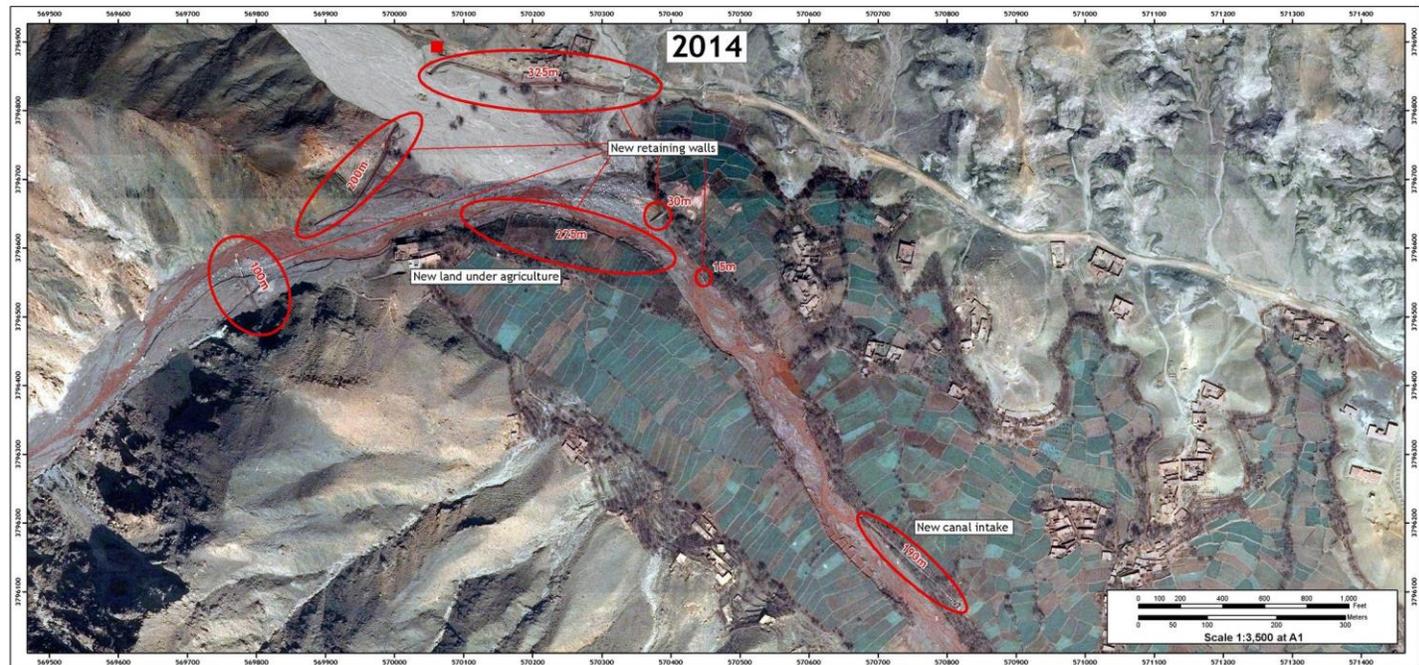
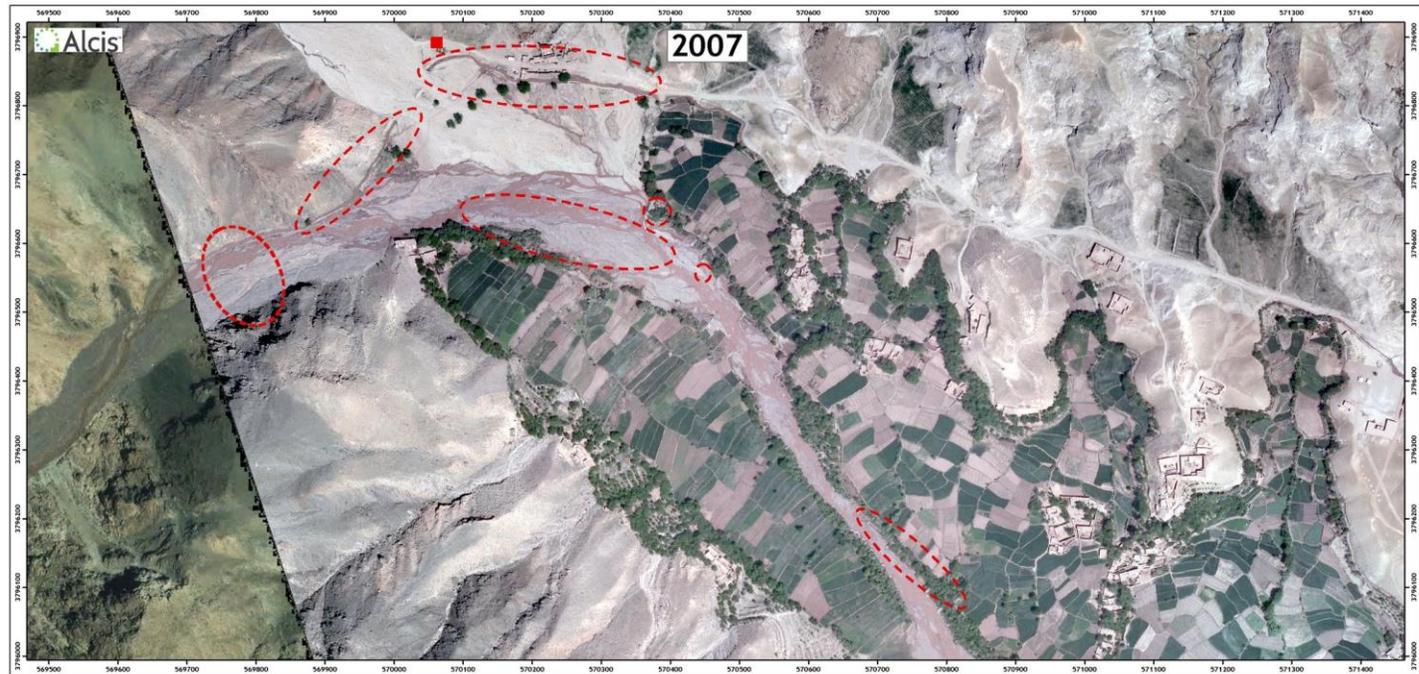
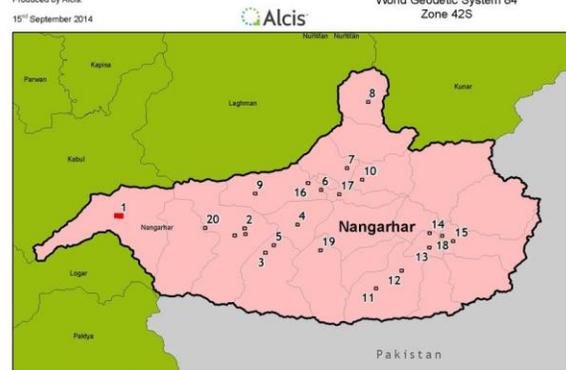
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Ref: 140822_IDEANEW2_Infrastructure_Analysis_A1L
Produced by Alcis.

15th September 2014

Coordinate System Information
Universal Transverse Mercator
World Geodetic System 84
Zone 42S



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 4

Data Notes

Highlighted infrastructure improvements cannot be guaranteed to have been created by IDEA NEW projects.

Legend

IDEA NEW Projects

- Department
- Agribusiness
 - Gender
 - Infrastructure
 - Institutional Capacity Building
 - Legacy Projects

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - T1W, 2013 - World View 2

Users noting errors or omissions should inform info@alcis.org

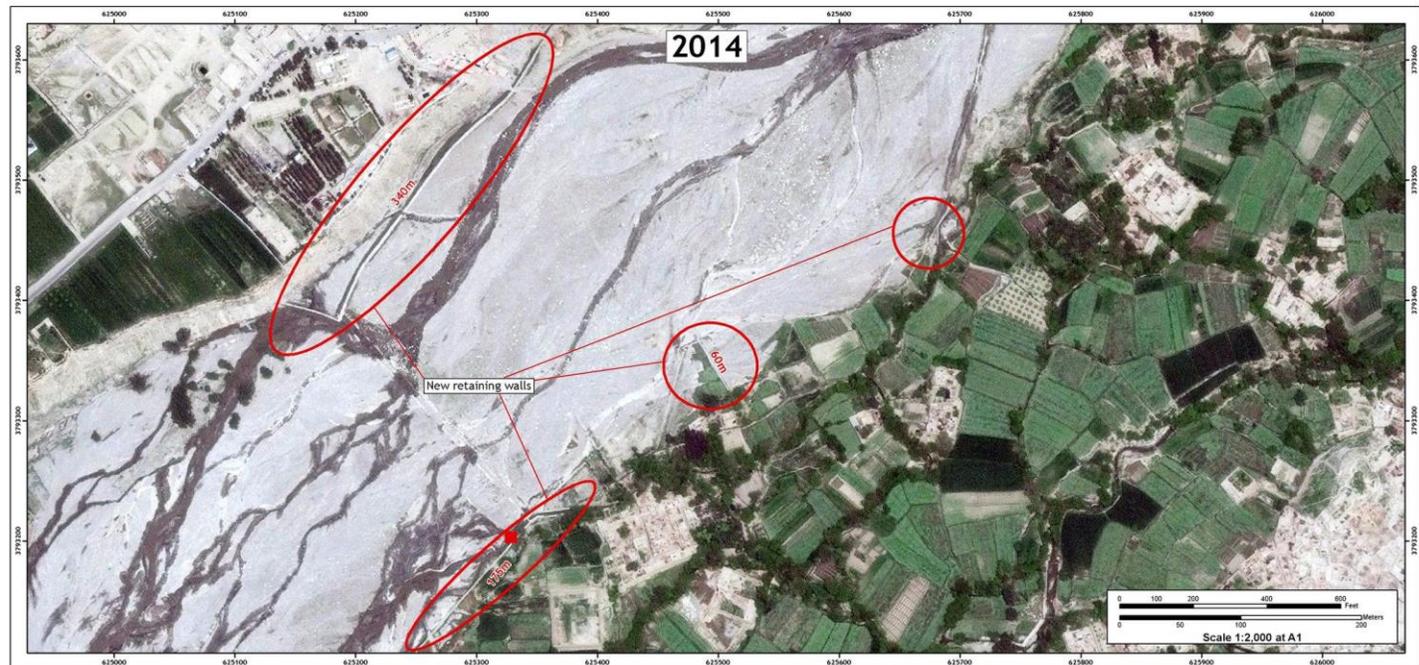
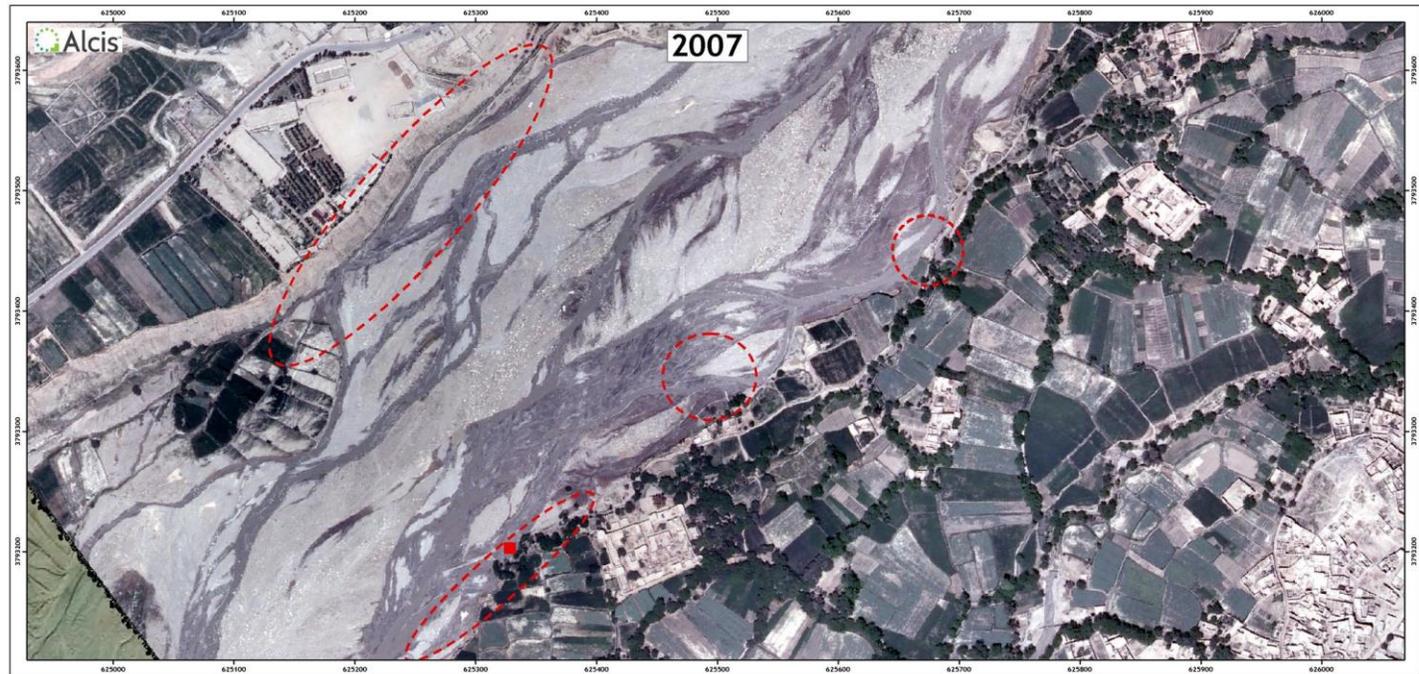
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Ref: 140822_IDEANEW2_Infrastructure_Analysis_A1L
Produced by Alcis

15th September 2014



Coordinate System Information
Universal Transverse Mercator
World Geodetic System 84
Zone 42S



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 5

Data Notes

Highlighted infrastructure improvements cannot be guaranteed to have been created by IDEA NEW projects.

Legend

IDEA NEW Projects

Department

- Agribusiness
- Gender
- Infrastructure
- Institutional Capacity Building
- Legacy Projects

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TiW, 2013 - World View 2

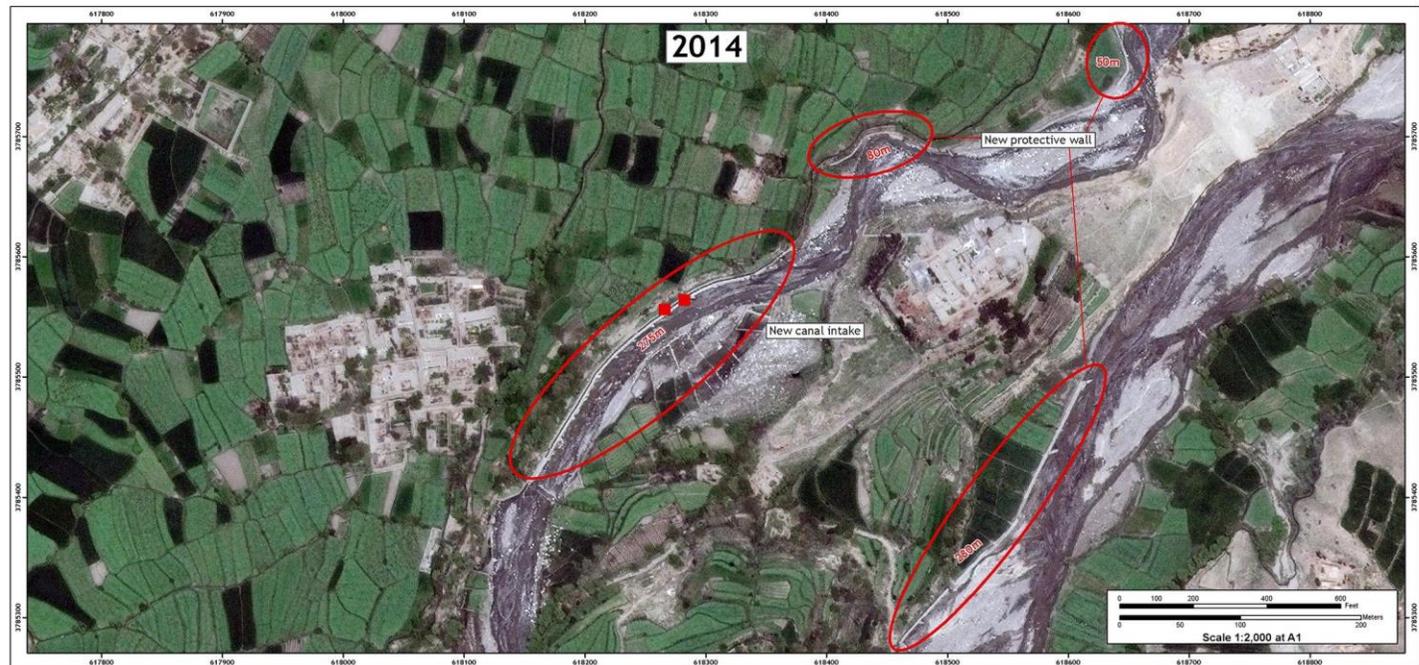
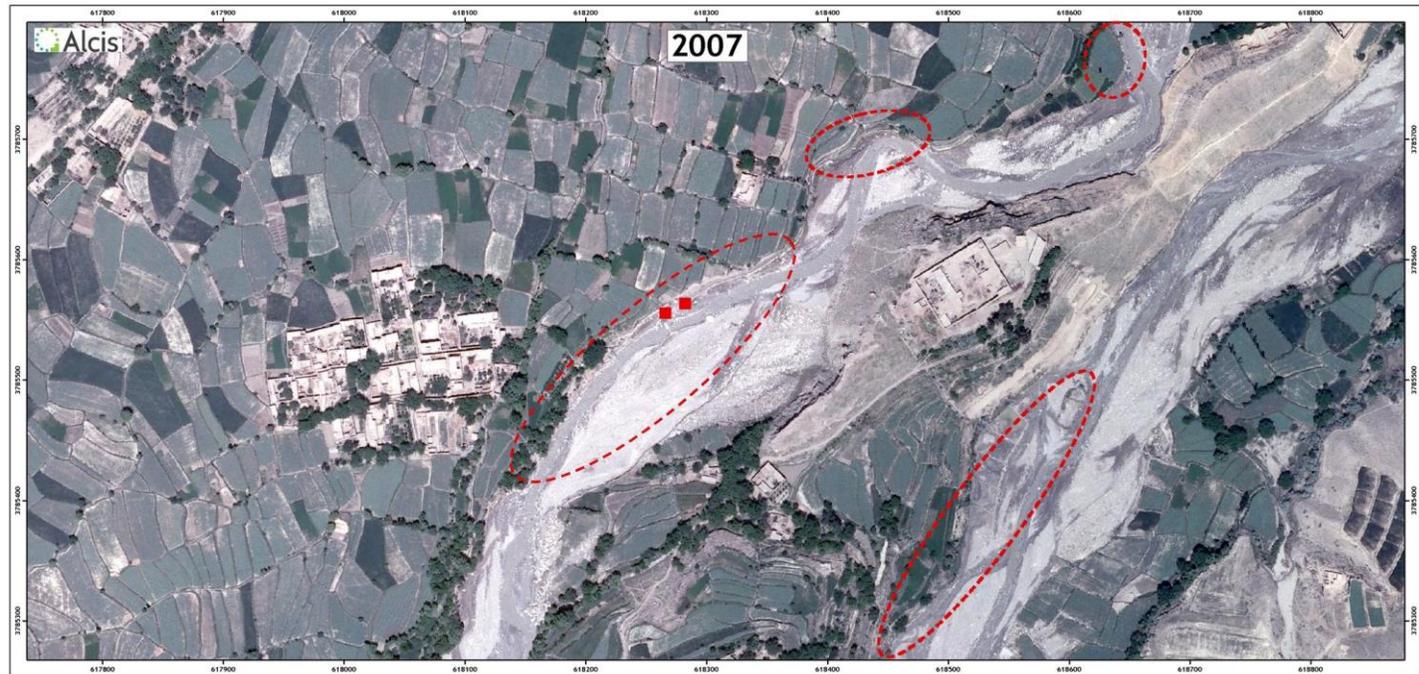
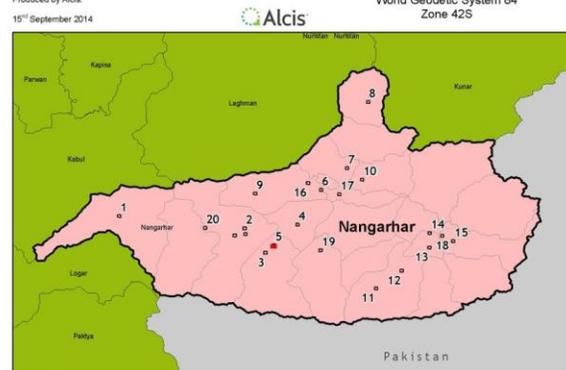
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Coordinate System Information
Universal Transverse Mercator
World Geodetic System 84
Zone 42S



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 11

Data Notes

Highlighted infrastructure improvements cannot be guaranteed to have been created by IDEA NEW projects.

Legend

IDEA NEW Projects

- Department
- Agribusiness
 - Gender
 - Infrastructure
 - Institutional Capacity Building
 - Legacy Projects

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TiW, 2013 - World View 2

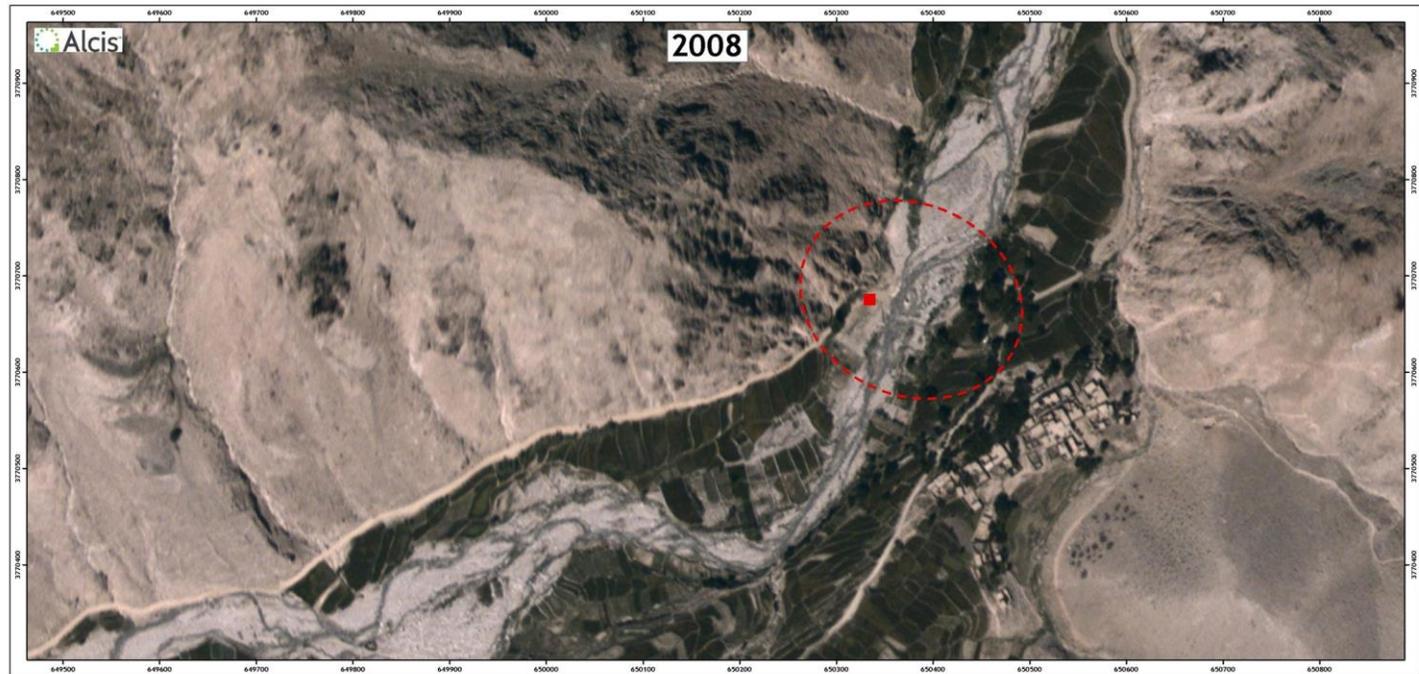
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Coordinate System Information
Universal Transverse Mercator
World Geodetic System 84
Zone 42S



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 13

Data Notes

Highlighted infrastructure improvements cannot be guaranteed to have been created by IDEA NEW projects.

Legend

IDEA NEW Projects

Department

- Agribusiness
- Gender
- Infrastructure
- Institutional Capacity Building
- Legacy Projects

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TiW, 2014 - World View 2

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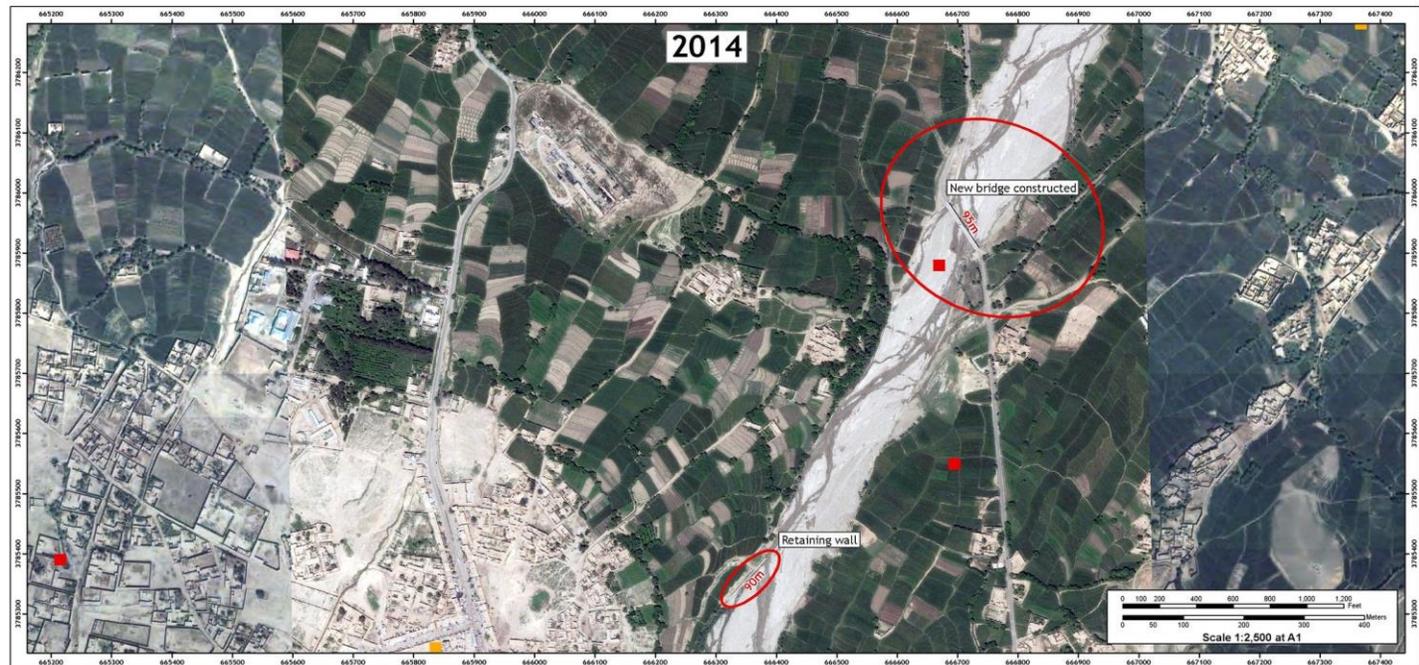
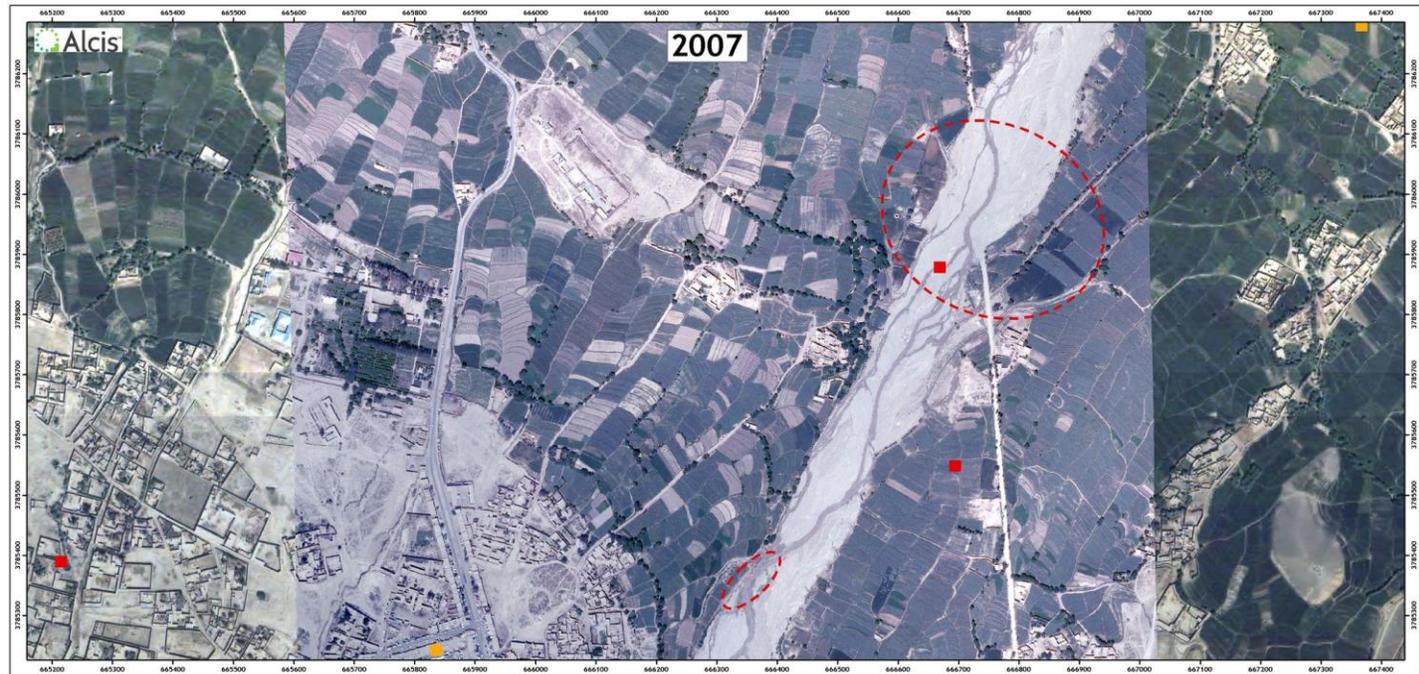
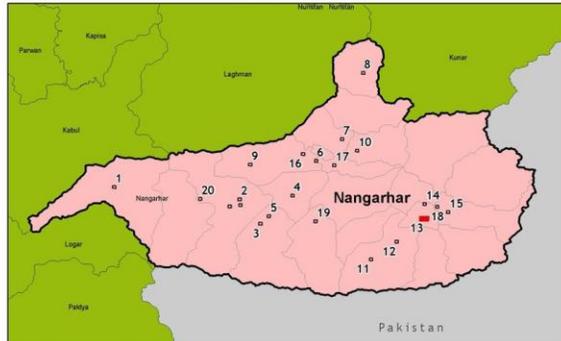
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Ref: 140822_IDEANEW2_Infrastructure_Analysis_A1L
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15th September 2014



Coordinate System Information
Universal Transverse Mercator
World Geodetic System 84
Zone 42S



IDEA NEW POPPY EVALUATION Infrastructure - Research Site 14

Data Notes

Highlighted infrastructure improvements cannot be guaranteed to have been created by IDEA NEW projects.

Legend

IDEA NEW Projects

Department

- Agribusiness
- Gender
- Infrastructure
- Institutional Capacity Building
- Legacy Projects

Data Sources

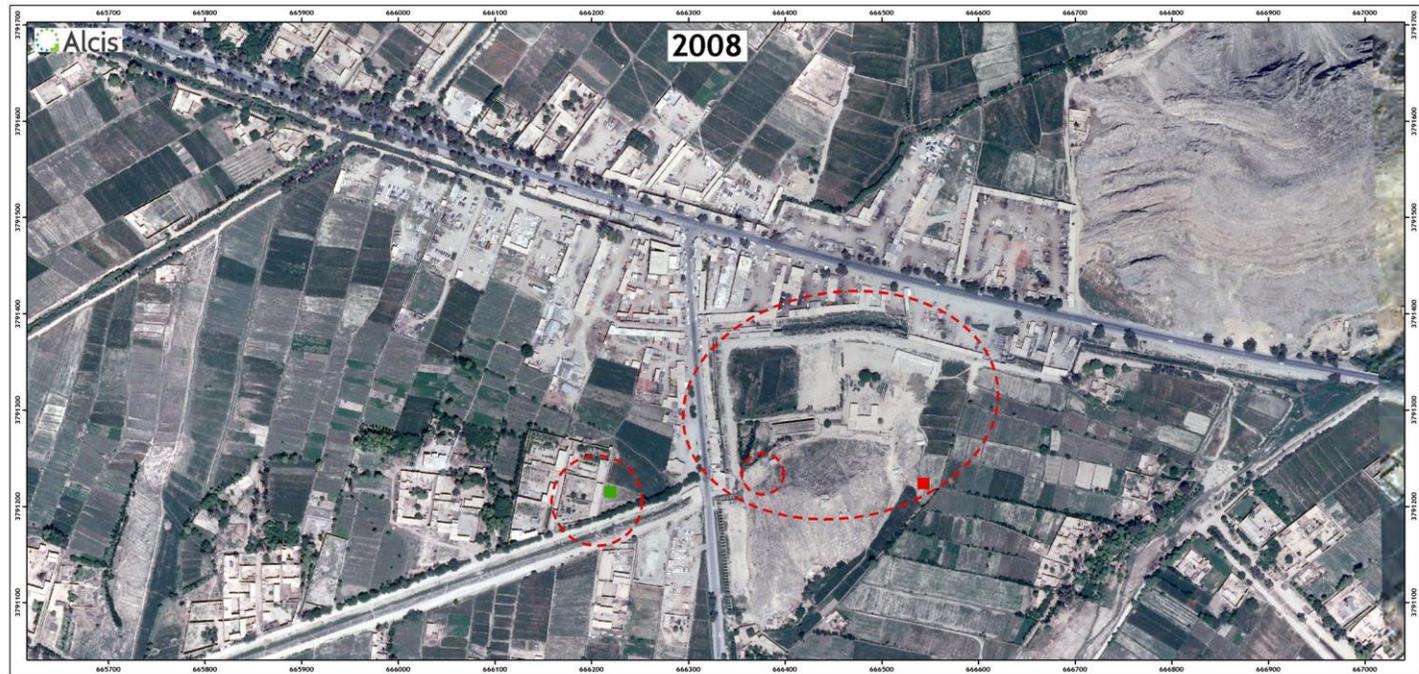
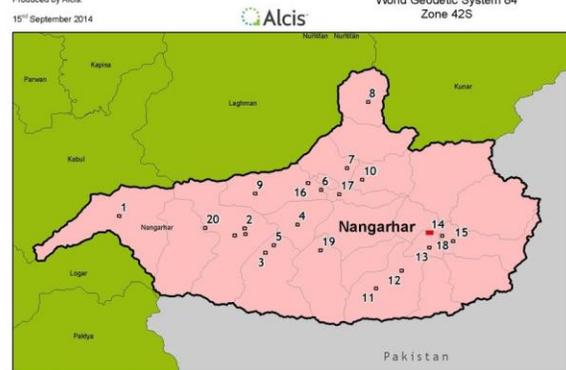
Boundaries supplied by NGA
Imagery: 2007 - TiW, 2013 - World View 2

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Ref: 140822_IDEANEW2_Infrastructure_Analysis_A1L
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15th September 2014



Annex D

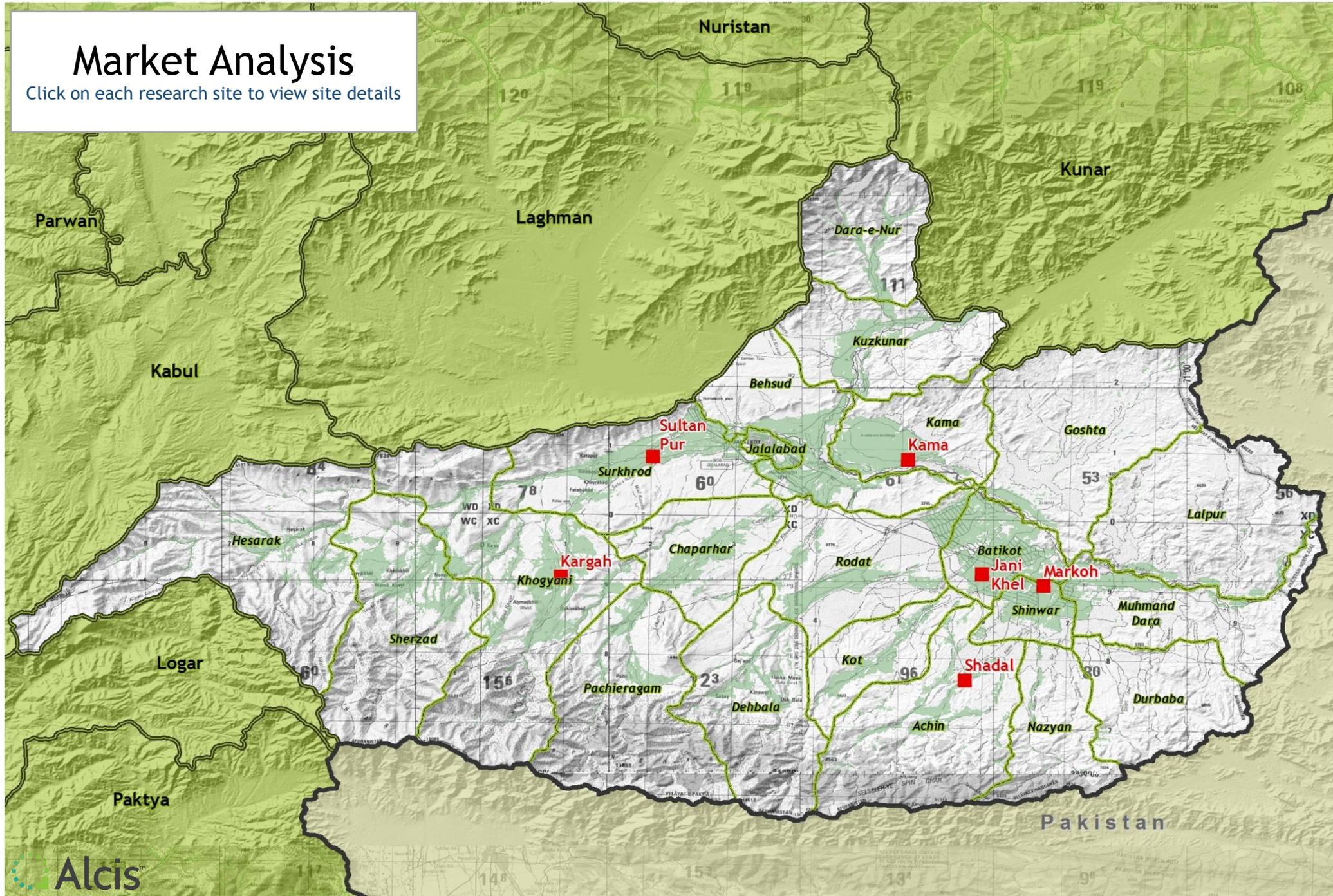
IDEA NEW Poppy Evaluation

Research Site

Markets Analysis

Market Analysis

Click on each research site to view site details

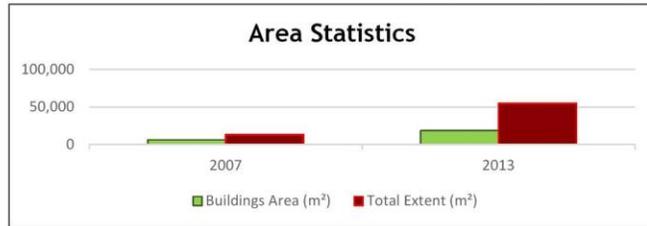


IDEA NEW POPPY EVALUATION

Jani Khel Bazaar, Bati Kot



Image taken from helicopter sortie 1st May 2013



Bati Kot	2007	2013
Buildings Area (m ²)	6,464	18,534
Total Extent (m ²)	13,356	54,963

Data Notes

Market boundaries interpreted from imagery by Alcis

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TIW, 2013 - World View 2

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Ref: 140822_IDEANEW2_Markets_Analysis_ATL
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22nd August 2014

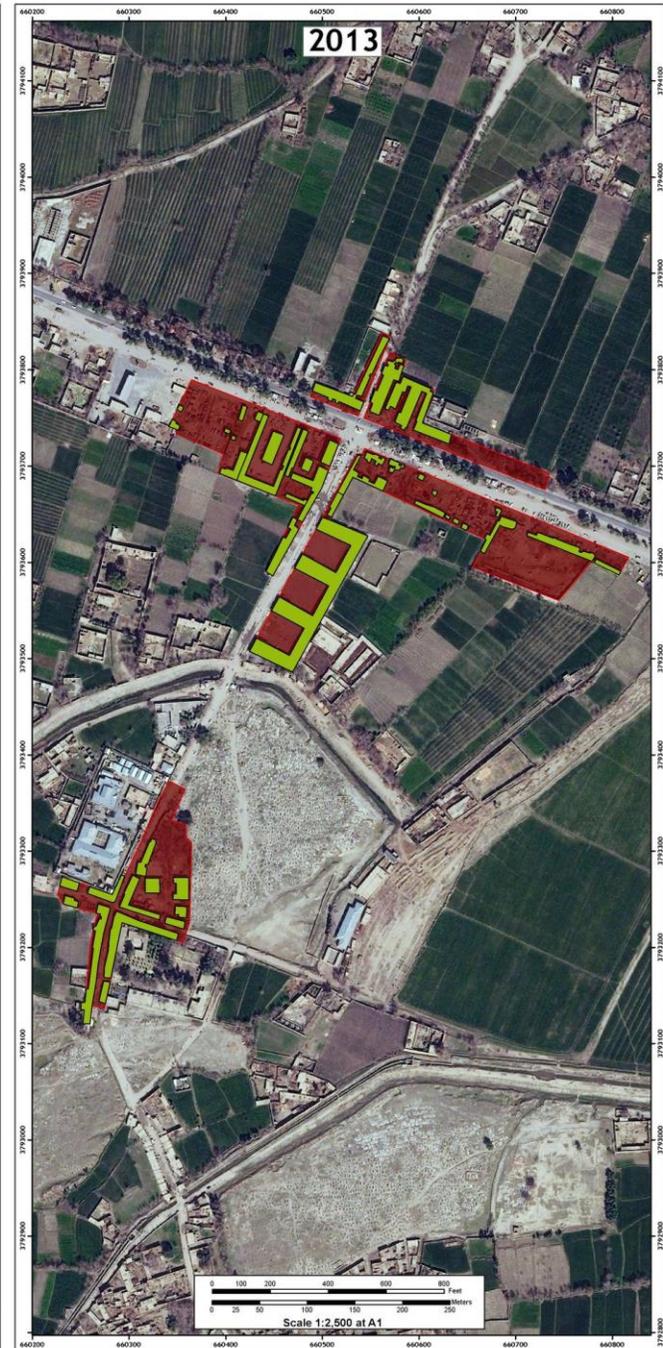
Legend

- Building
- Market Extent

Coordinate System Information

Universal Transverse Mercator
World Geographic System 84
Zone 42S

Scale 1:2,500 at A1

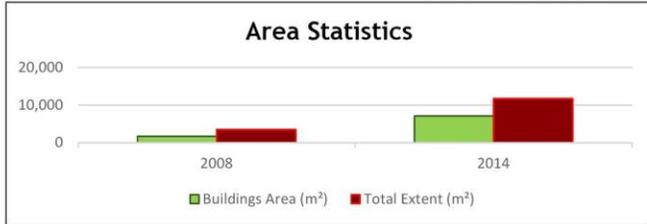


IDEA NEW POPPY EVALUATION

Kama Bazaar, Kama



Image taken from helicopter sortie 1st May 2013



Kama	2008	2014
Buildings Area (m ²)	1,656	7,110
Total Extent (m ²)	3,489	11,671

Data Notes

Market boundaries interpreted from imagery by Alcis

Data Sources

Boundaries supplied by NGA
Imagery: 2008 - Rampant Lion 2; 2014 - World View 2

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Ref: 140822_IDEANEW2_Markets_Analysis_A11
Produced by Alcis

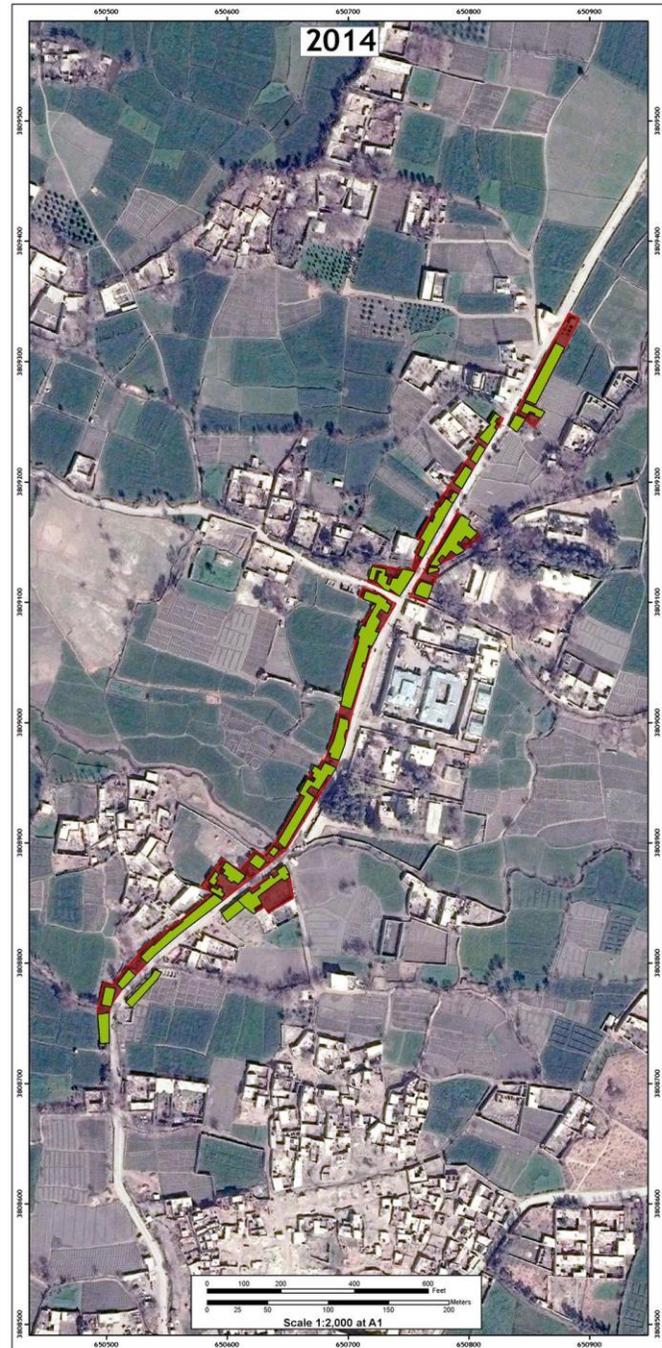
22nd August 2014

Legend

- Building
- Market Extent

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42S

Scale 1:2,000 at A1



IDEA NEW POPPY EVALUATION

Kargah Bazaar, Khogyani

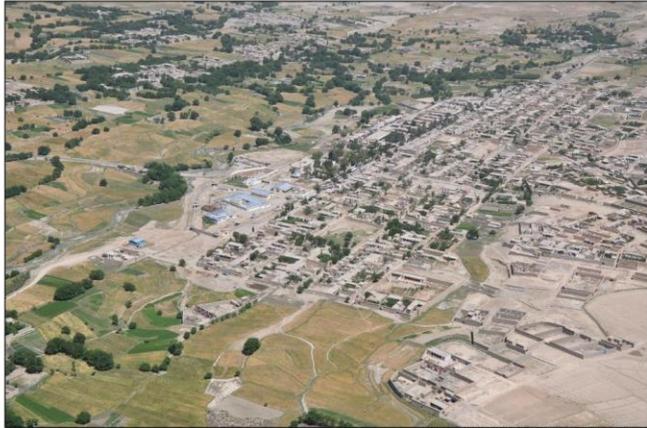
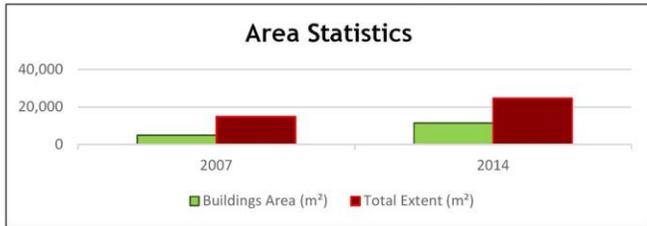


Image taken from helicopter sortie 27th May 2012



Khogyani	2007	2014
Buildings Area (m²)	4,969	11,505
Total Extent (m²)	14,984	24,613

Data Notes

Market boundaries interpreted from imagery by Alcis

Legend

- Building
- Market Extent

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TIW, 2014 - World View 2

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42S

Scale 1:2,000 at A1

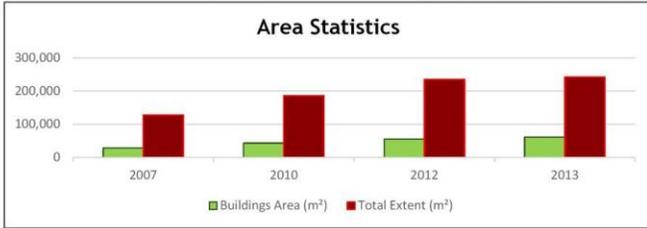


IDEA NEW POPPY EVALUATION

Markoh Bazaar, Shinwar



Image taken from helicopter sortie 26th June 2012



Shinwar	2007	2010	2012	2013
Buildings Area (m ²)	28,333	42,845	55,386	61,374
Total Extent (m ²)	127,853	186,506	235,902	242,717

Data Notes

Market boundaries interpreted from imagery by Alcis

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TIW, 2010 - World View 1; 2012 - Buckeye;
2013 - World View 2

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Ref: 140822_IDEANEW2_Markets_Analysis_A11
Produced by Alcis

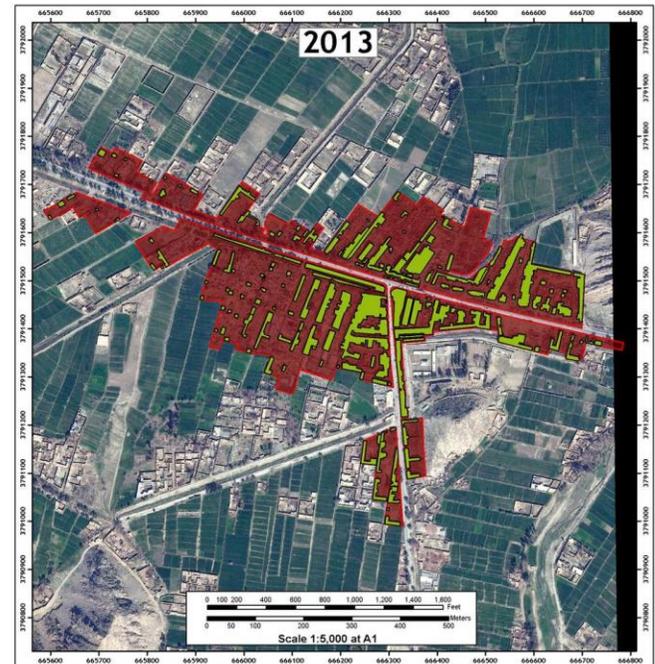
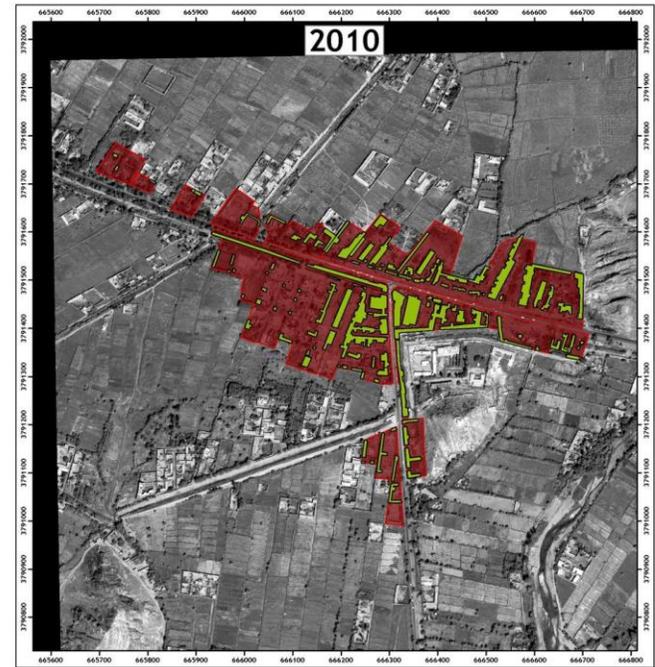
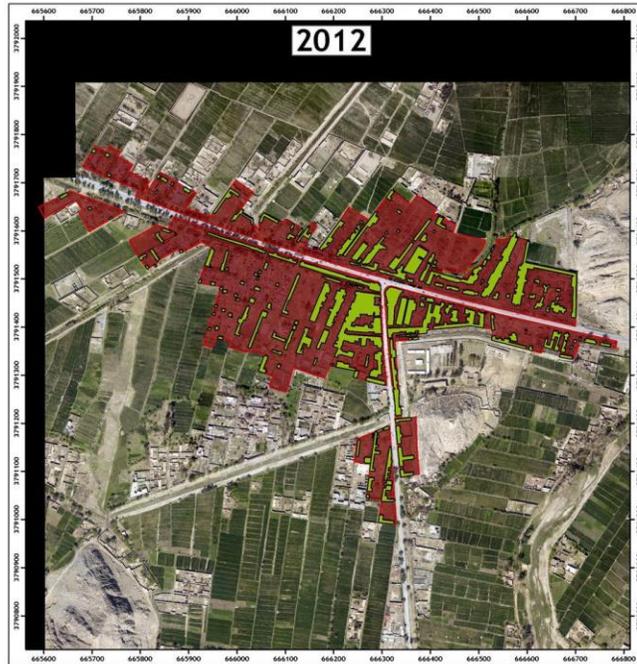
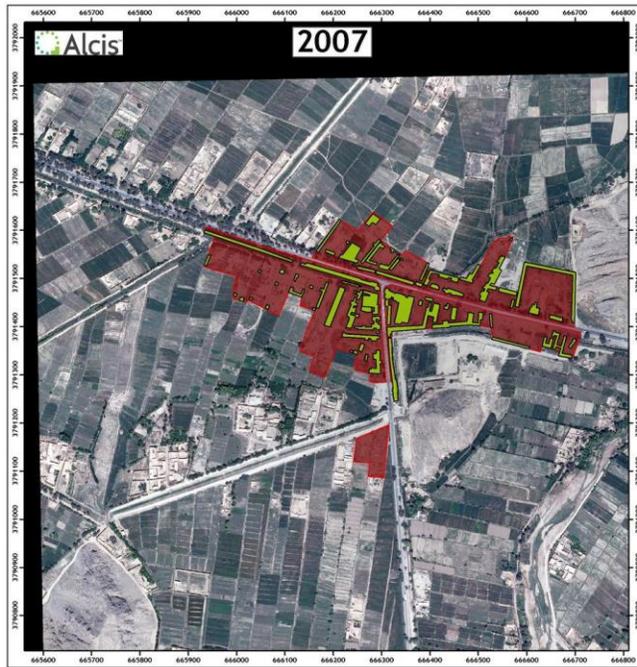
22nd August 2014

Legend

- Building
- Market Extent

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42S

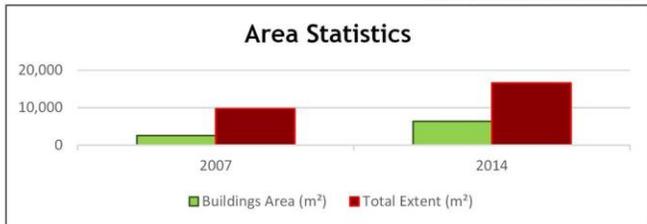
Scale 1:5,000 at A1



IDEA NEW POPPY EVALUATION Sultan Pur Bazaar, Surkh Rud



Image taken from helicopter sortie 1st May 2013



Sultan Pur	2007	2014
Buildings Area (m ²)	2,581	6,350
Total Extent (m ²)	9,770	16,587

Data Notes

Boundaries created and classified by Alcis

Data Sources

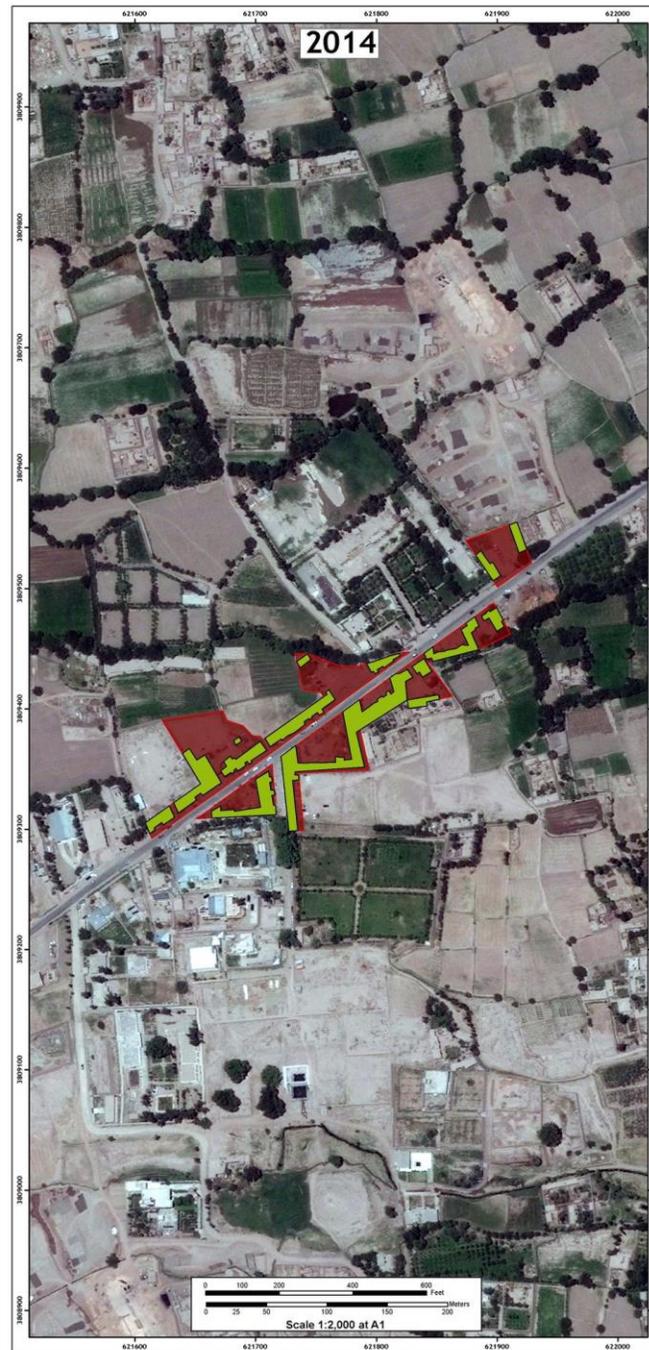
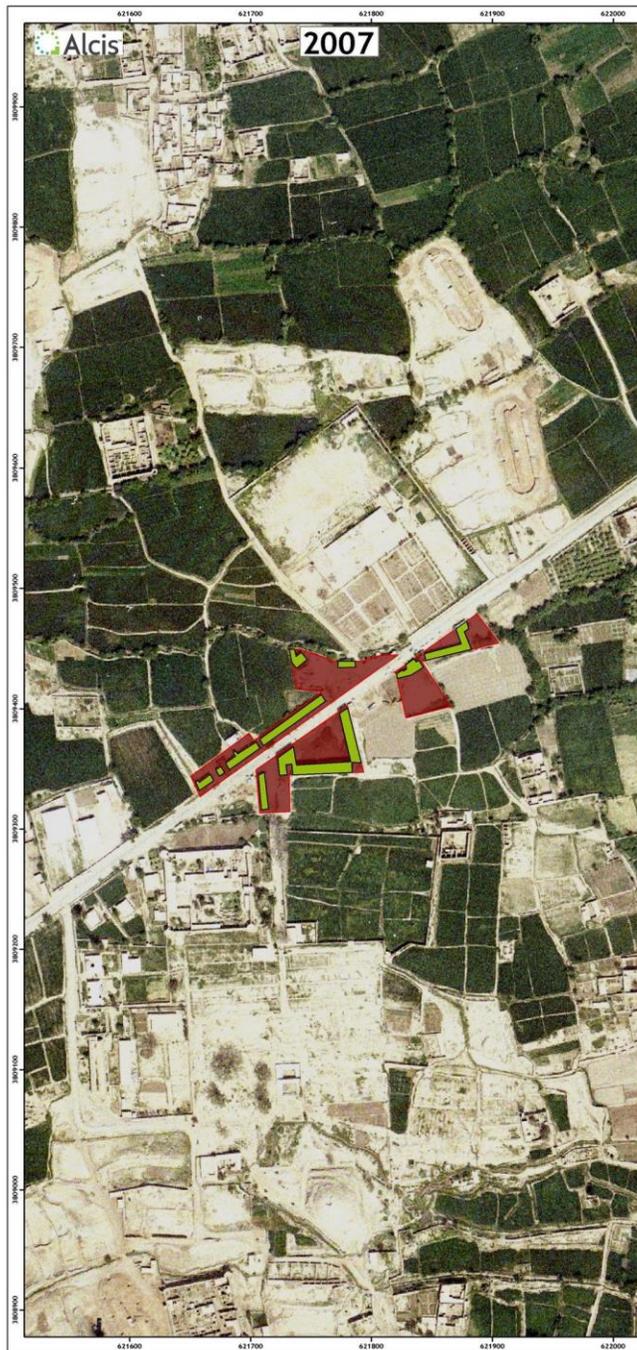
Boundaries supplied by NGA
Imagery: 2007 - TIW, 2014 - World View 2

Legend

- Building
- Market Extent

Coordinate System Information
Universal Transverse Mercator
World Geographic System 84
Zone 42S

Scale 1:2,000 at A1



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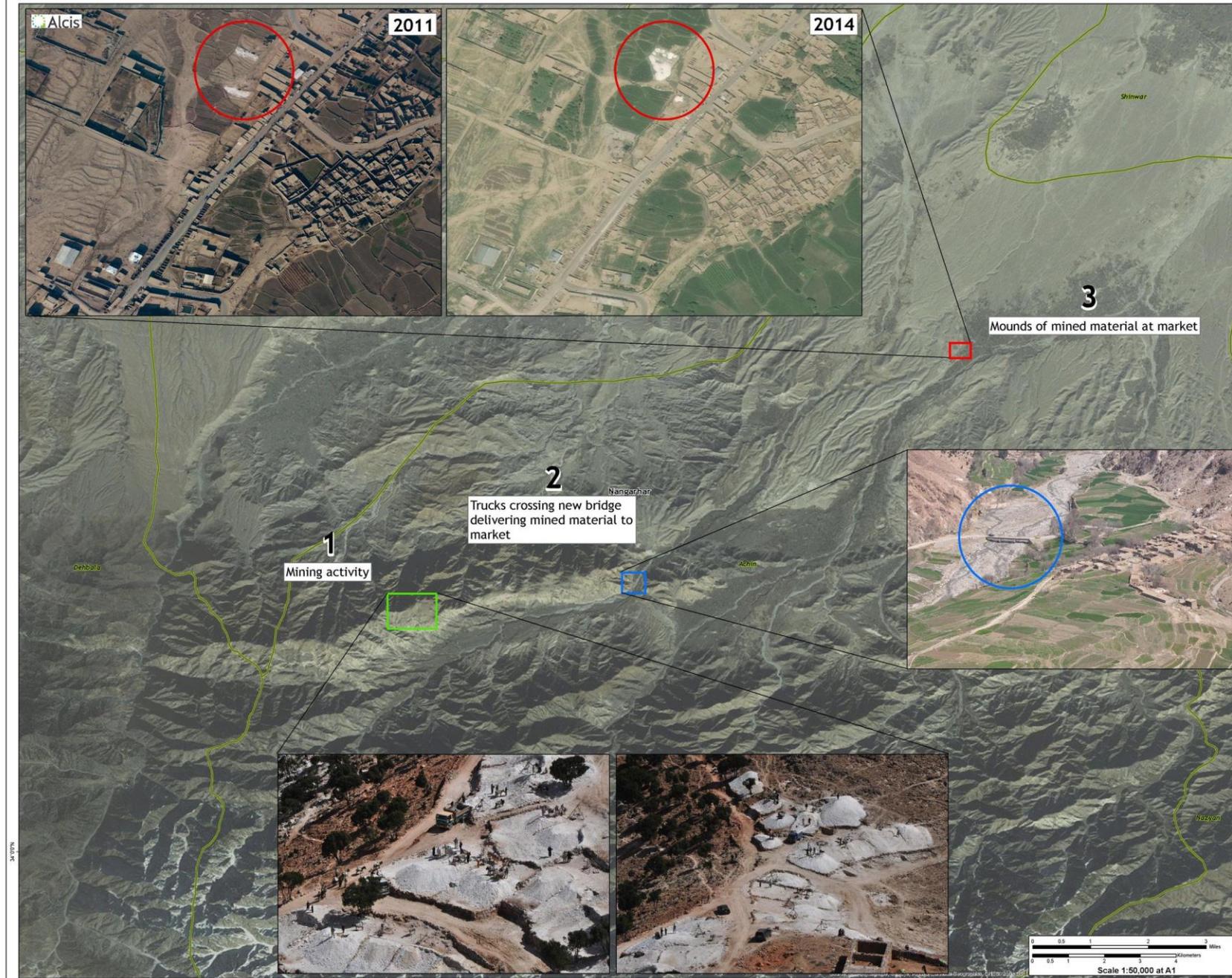
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Ref: 140822_IDEANEW2_Markets_Analysis_A11
Produced by Alcis

22nd August 2014



NANGARHAR Mining Activity



Legend

District Boundary

Data Notes

Data Sources

Base imagery supplied by ESRI
 Boundary data provided by NGA
 Aerial photos collected by Alcis 29th March 2012
 2011 Imagery - Buckeye
 2014 Imagery - World View 2

Coordinate System Information

World Geographic System 84
 Geographic Lat/long

Scale 1:50,000 at A1



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Ref: 142910_Mining_A1L
 Produced by Alcis.

10th September 2014



Annex E

IDEA NEW Poppy Evaluation

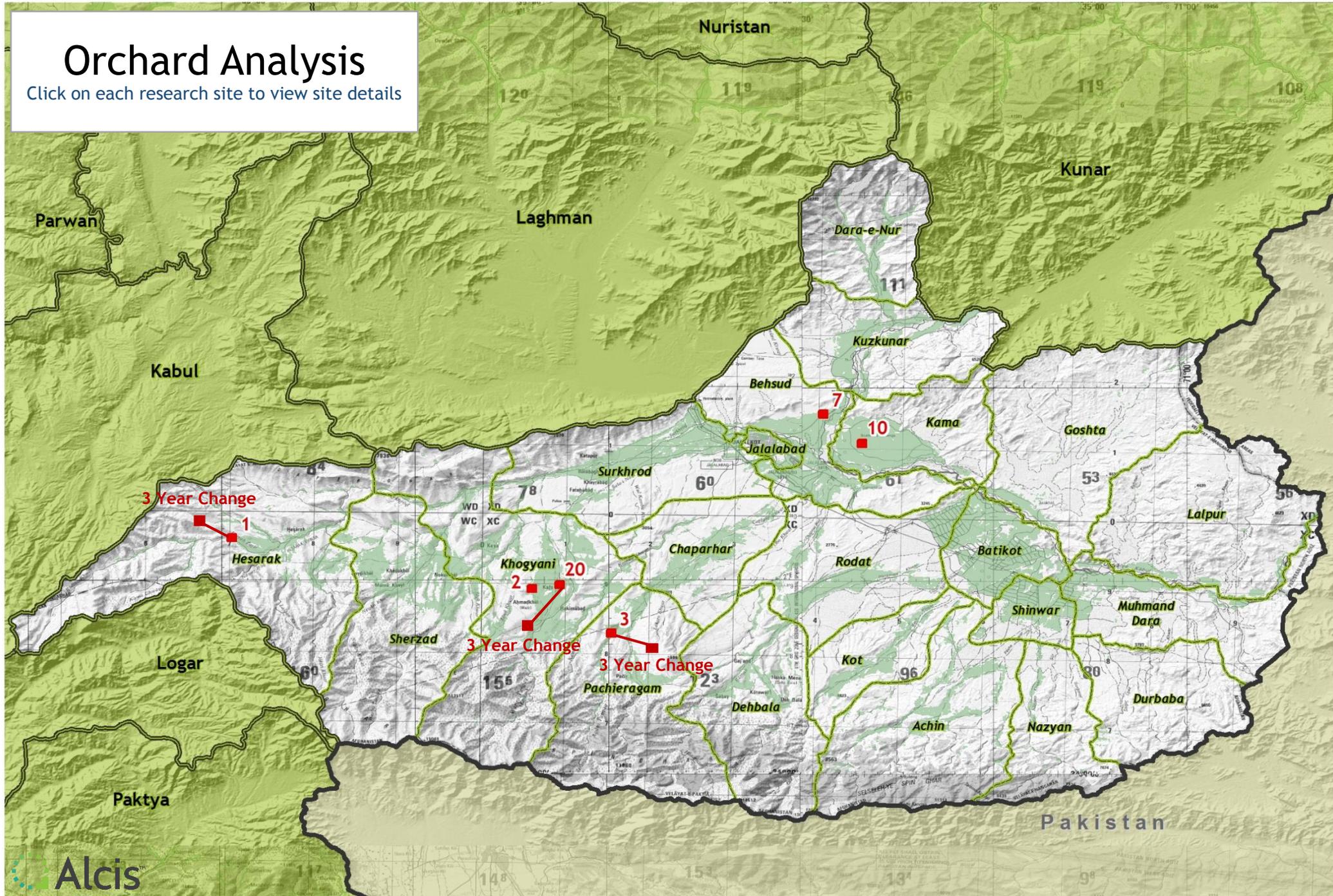
Research Site

Orchards Analysis



Orchard Analysis

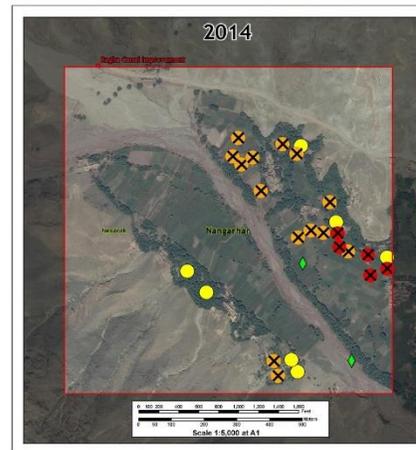
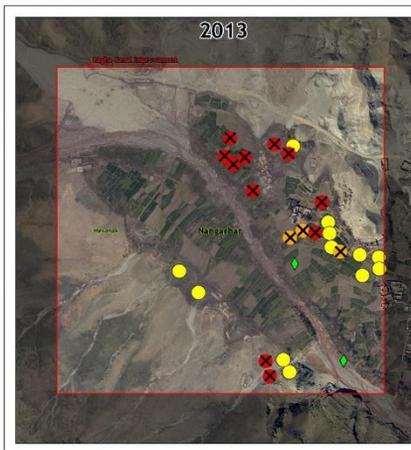
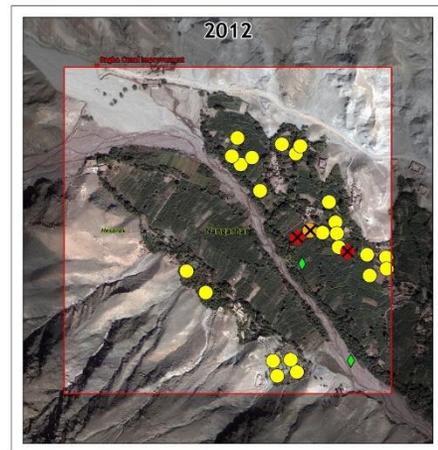
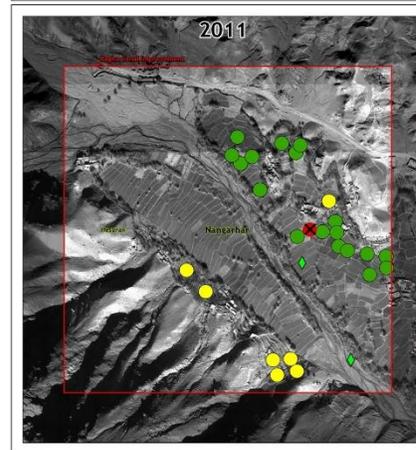
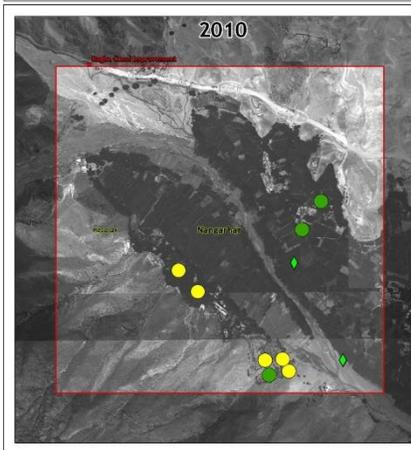
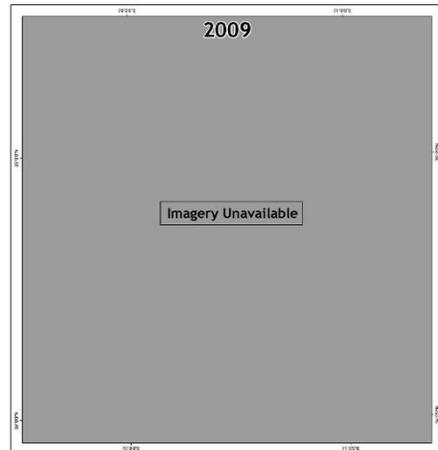
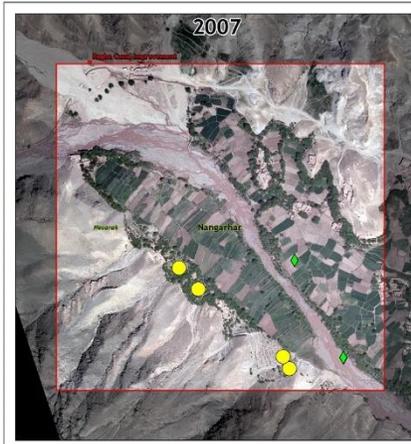
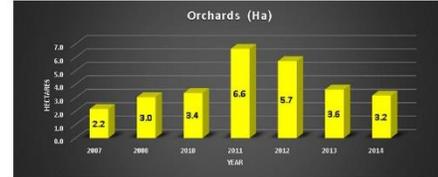
Click on each research site to view site details



IDEA NEW POPPY EVALUATION Research Site 1 - Orchards

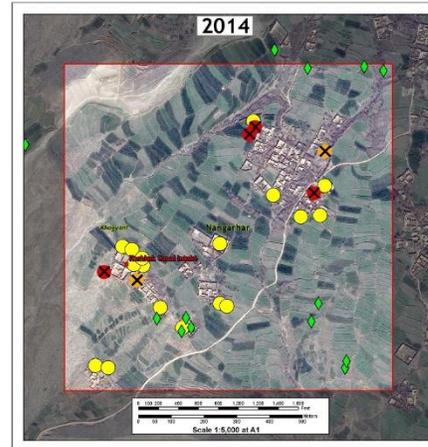
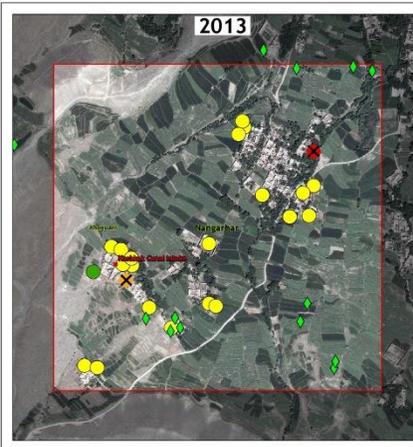
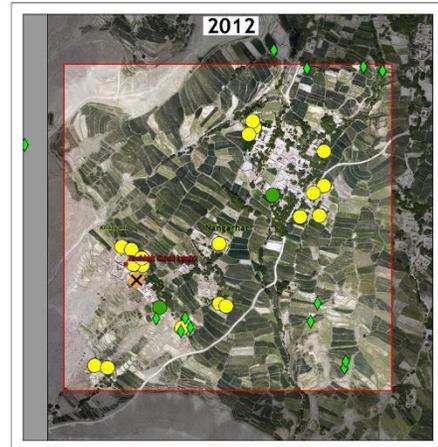
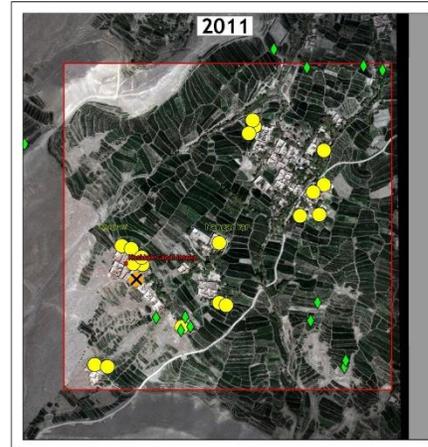
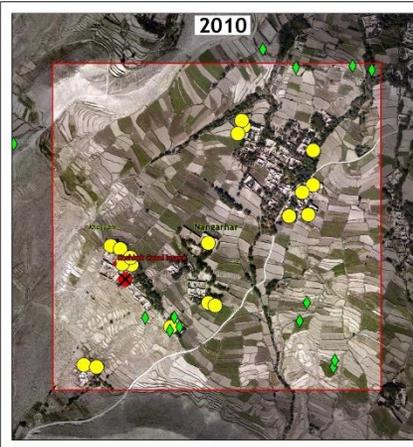
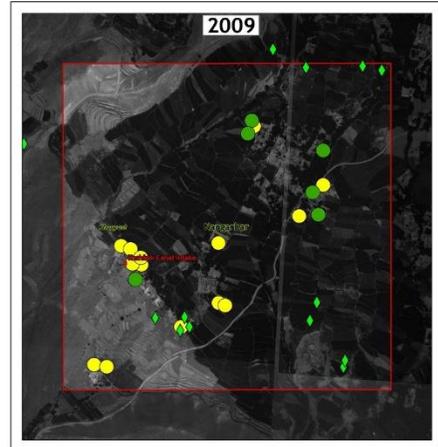
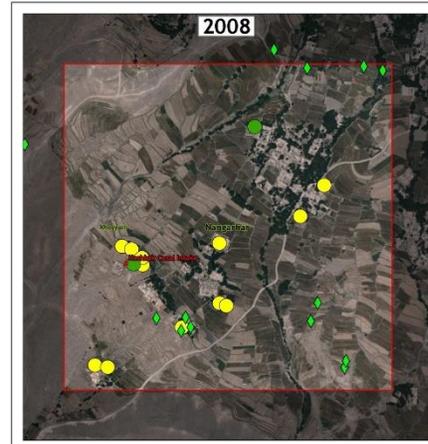
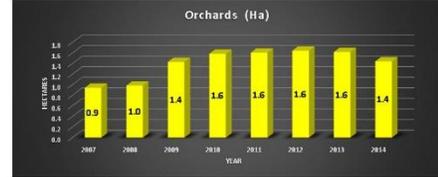
Legend

- Research Sites
- New Orchard
- Orchard Present
- Orchard Newly Removed
- ✕ Orchard Previously Removed
- ◆ ALP Projects



IDEA NEW POPPY EVALUATION Research Site 2 - Orchards

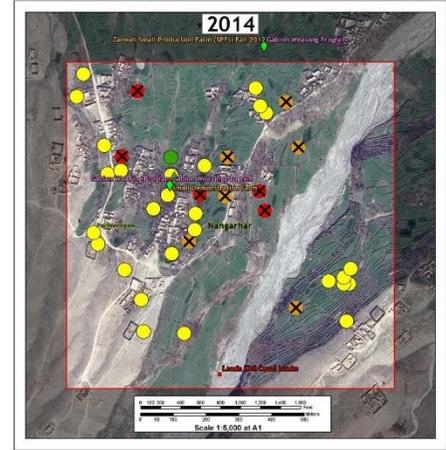
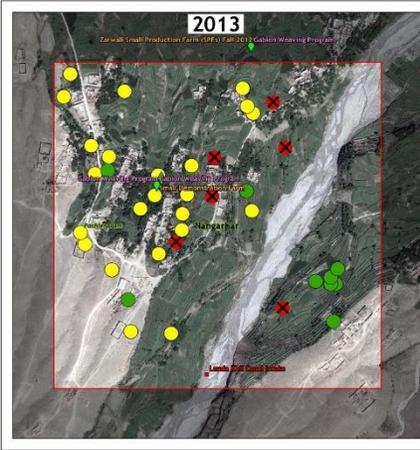
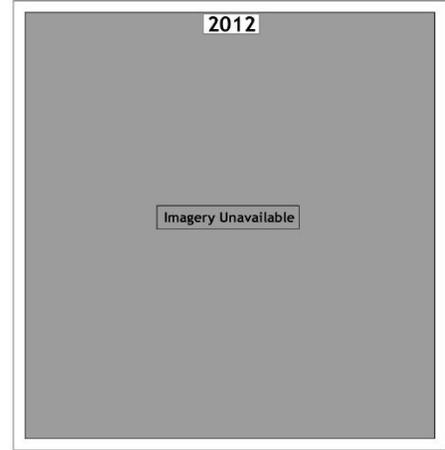
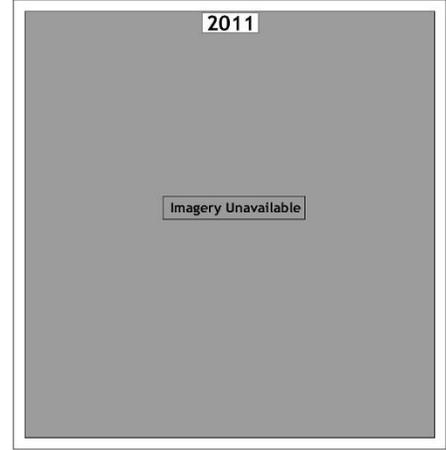
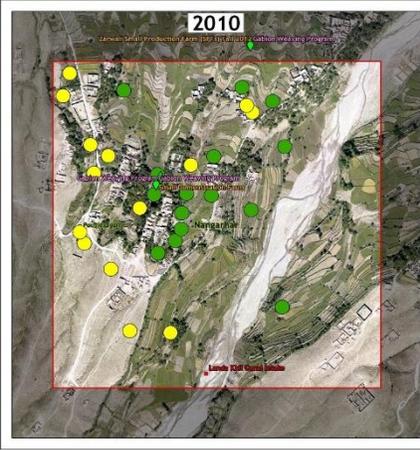
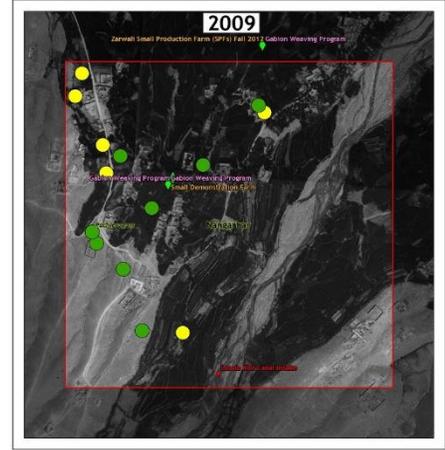
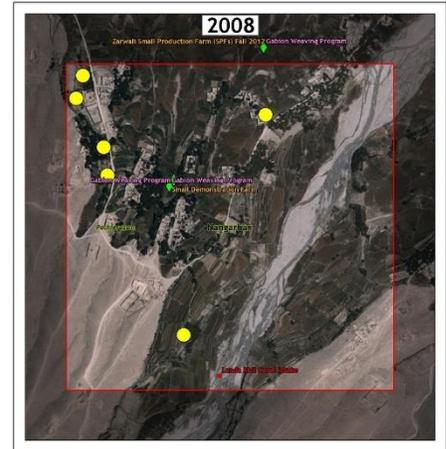
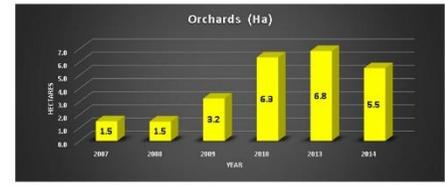
Legend



IDEA NEW POPPY EVALUATION Research Site 3 - Orchards

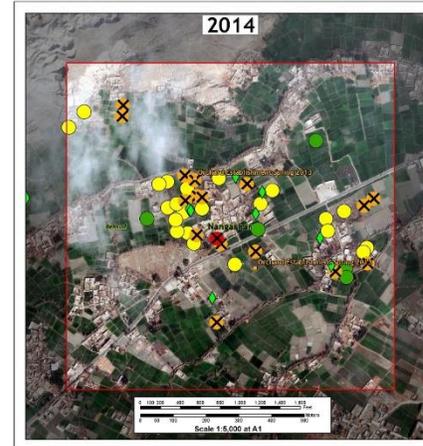
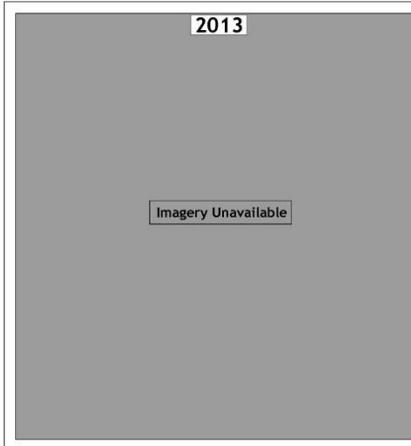
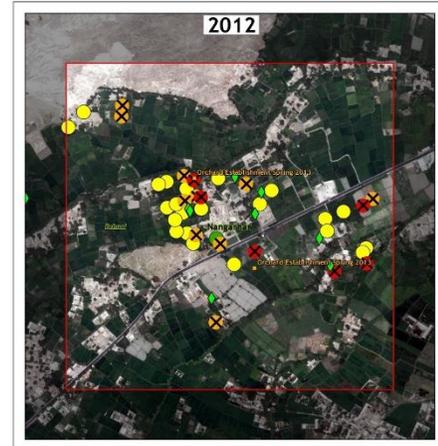
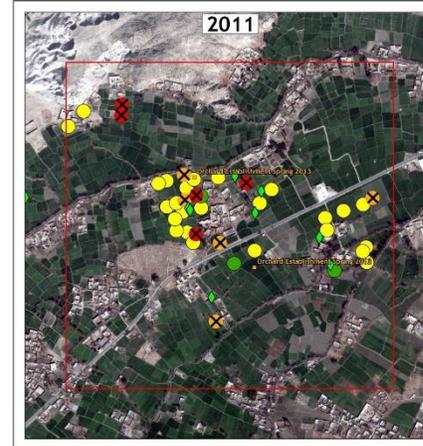
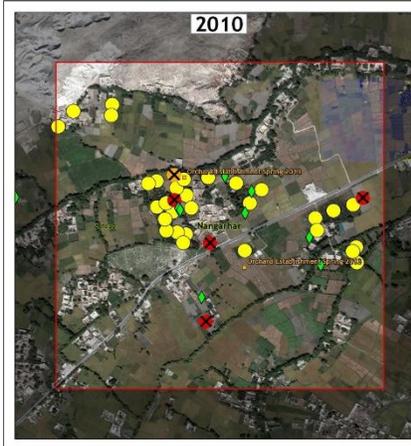
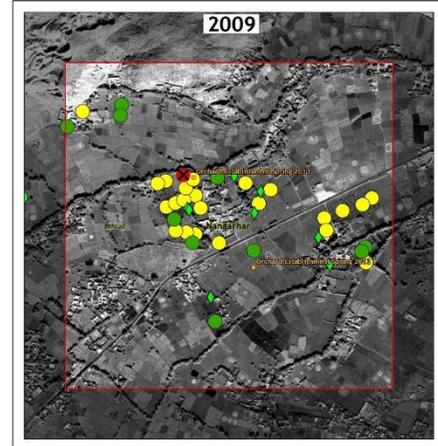
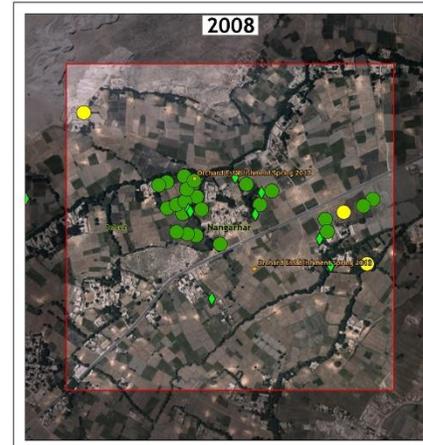
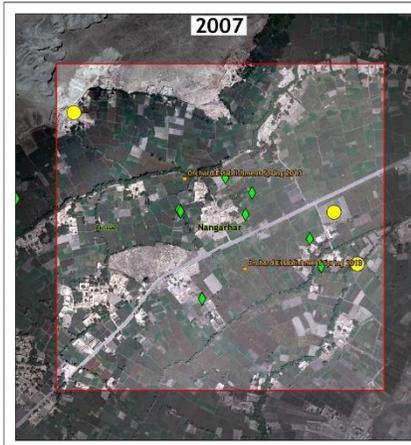
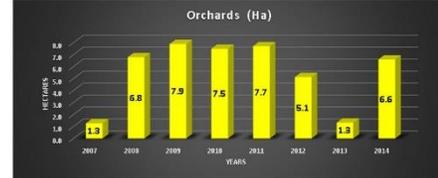
Legend

- Research Sites
- New Orchard
- Orchard Present
- Orchard Newly Removed
- ✕ Orchard Previously Removed
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ◆ ALP Projects



IDEA NEW POPPY EVALUATION Research Site 7 - Orchards

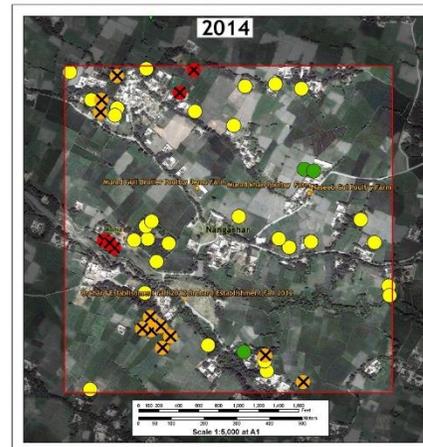
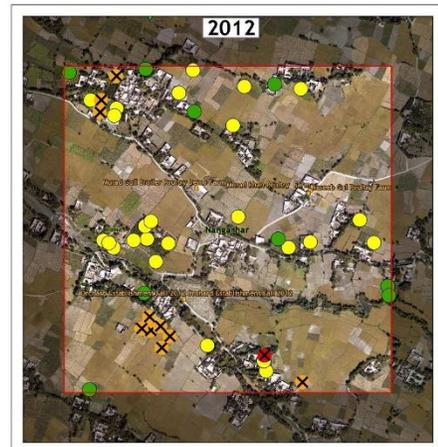
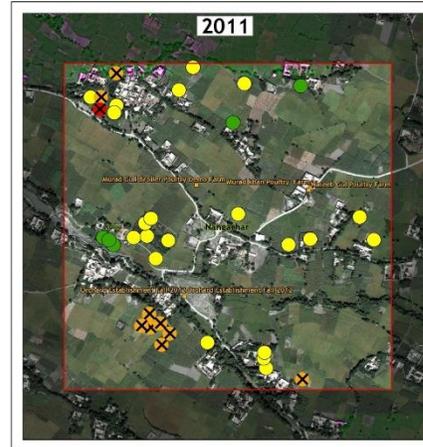
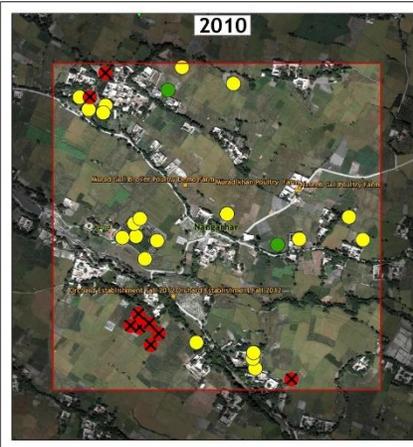
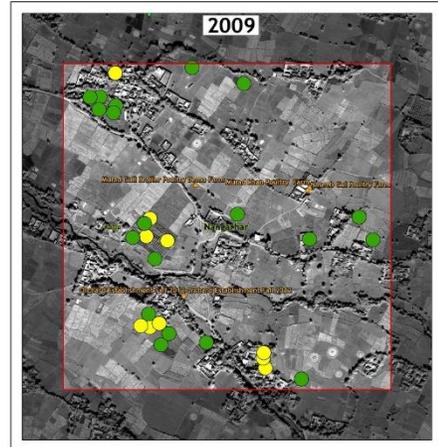
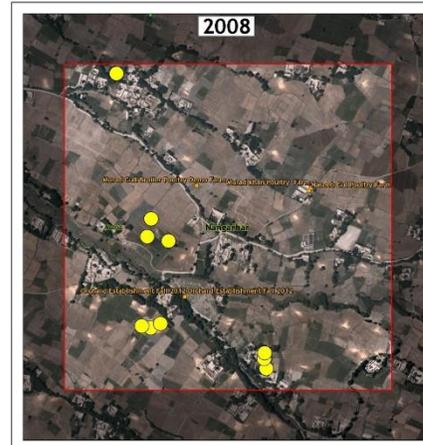
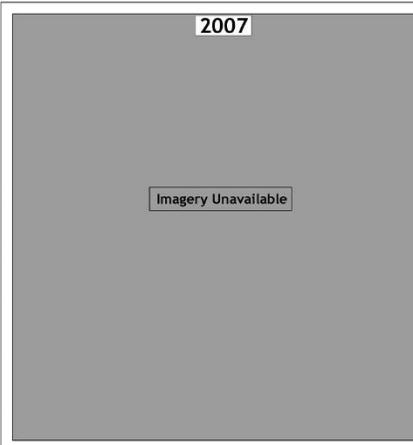
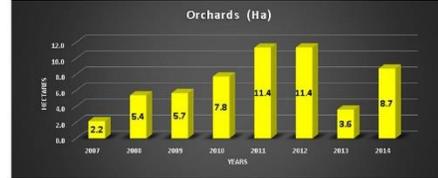
Legend



IDEA NEW POPPY EVALUATION Research Site 10 - Orchards

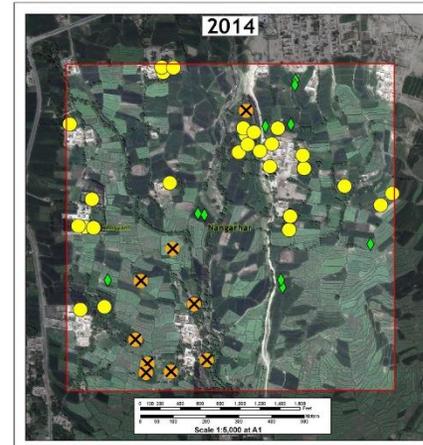
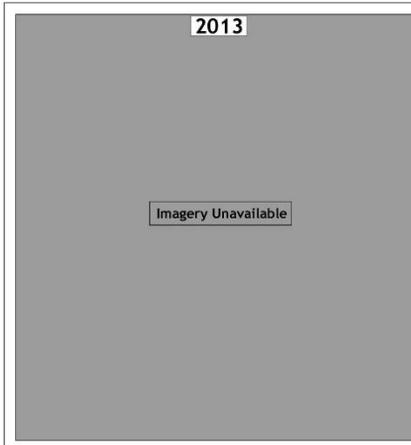
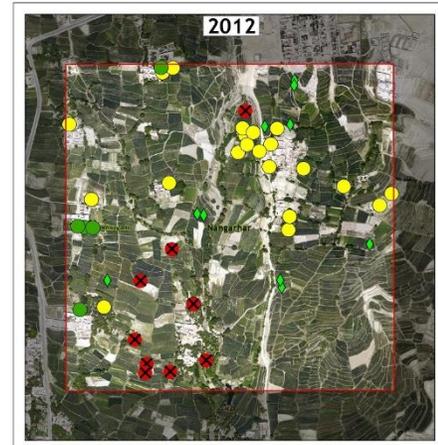
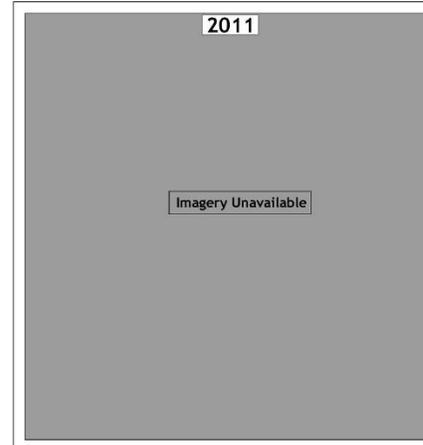
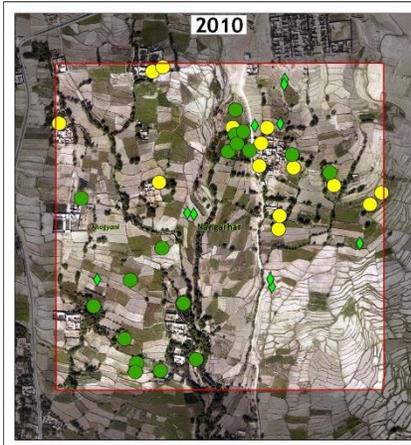
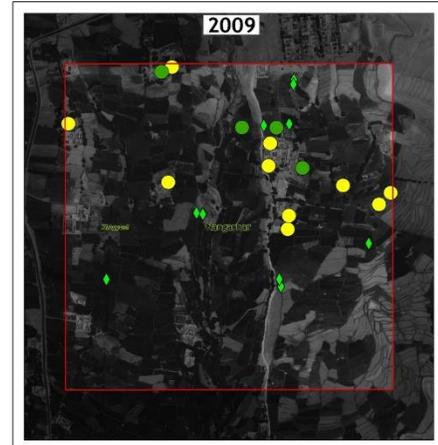
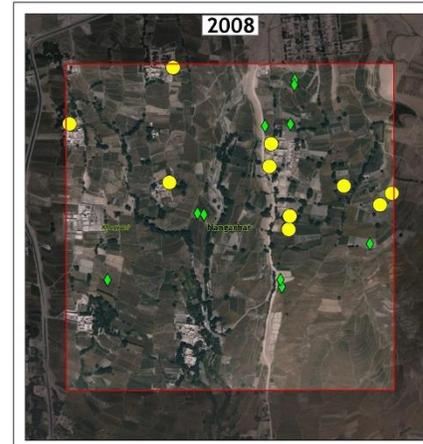
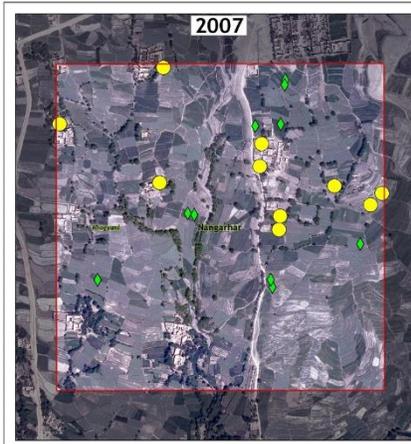
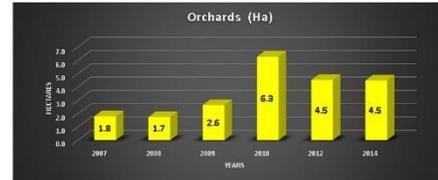
Legend

- Research Sites
- New Orchard
- Orchard Present
- Orchard Newly Removed
- ✕ Orchard Previously Removed
- Agribusiness
- Infrastructure
- Capacity Building
- Gender
- Legacy Projects
- ◆ ALP Projects



IDEA NEW POPPY EVALUATION Research Site 20 - Orchards

Legend



Data Notes

Orchard locations captured from imagery by Alcis

Data Sources

Boundaries supplied by NGA
Imagery: 2007 - TMV, 2008 - Planet, 2009 - OBC,
2010 - Busbyte, 2012 - Busbyte, 2014 - WorldView 2

Coordinate System Information

Universal Transverse Mercator
World Geodetic System 84
Zone 42

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Ref: 141016_RES20_Orchards

Produced by Alcis
10 October 2014

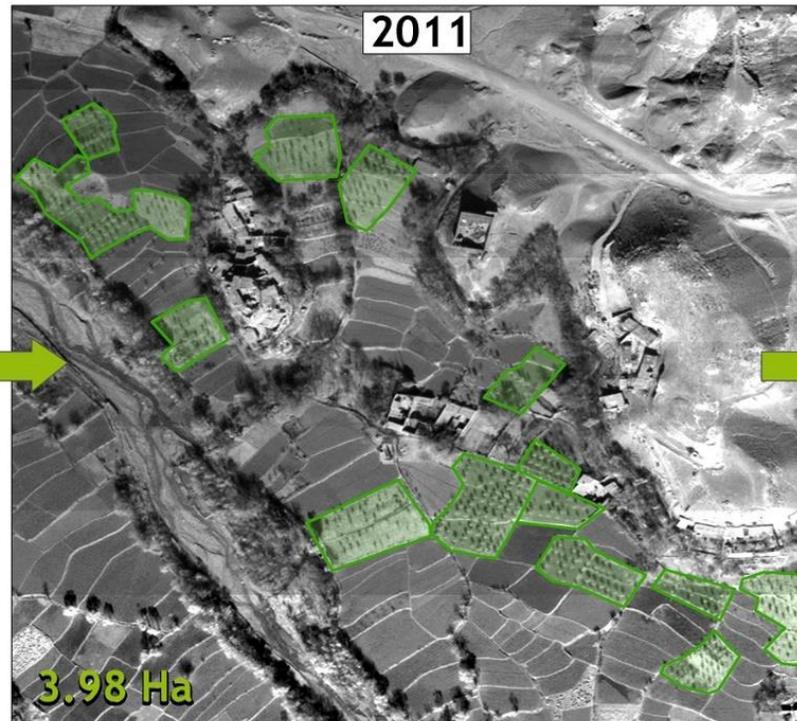


IDEA NEW POPPY EVALUATION Research Site 1 - Changing Orchards



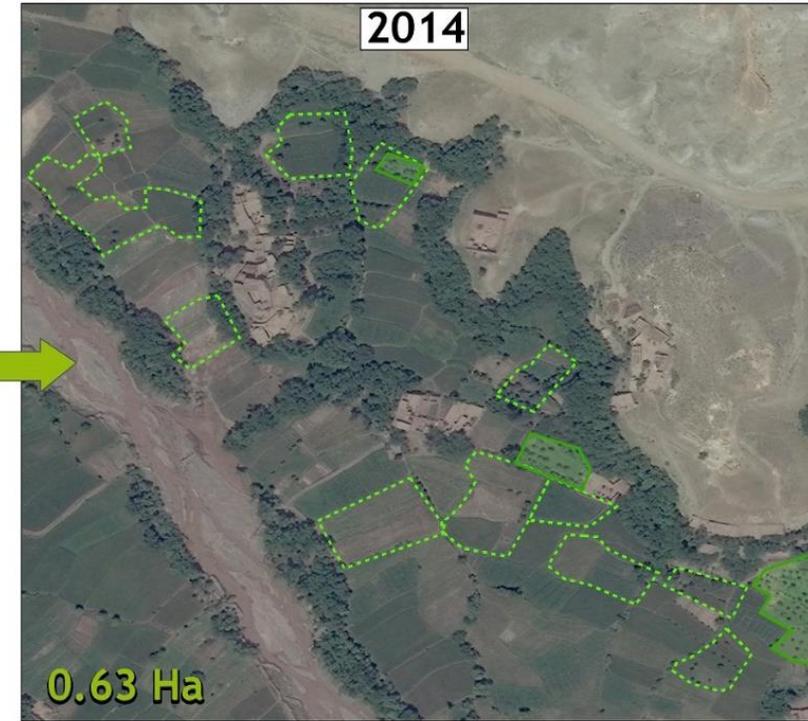
Data Notes

Orchard locations and areas captured from imagery by Alcis



Data Sources

Imagery: 2007 - T1W; 2011 - World View 1; 2014 - World View 2

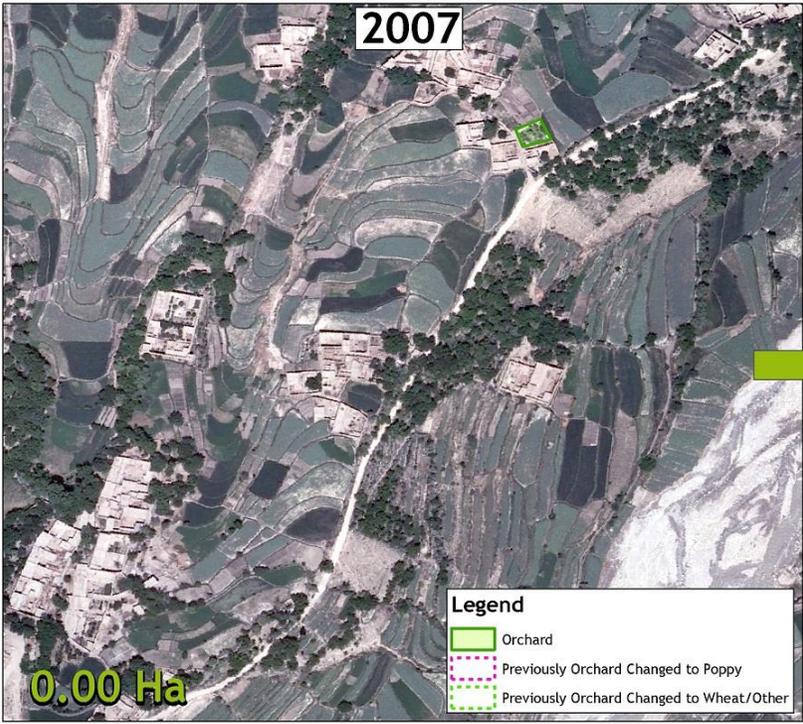


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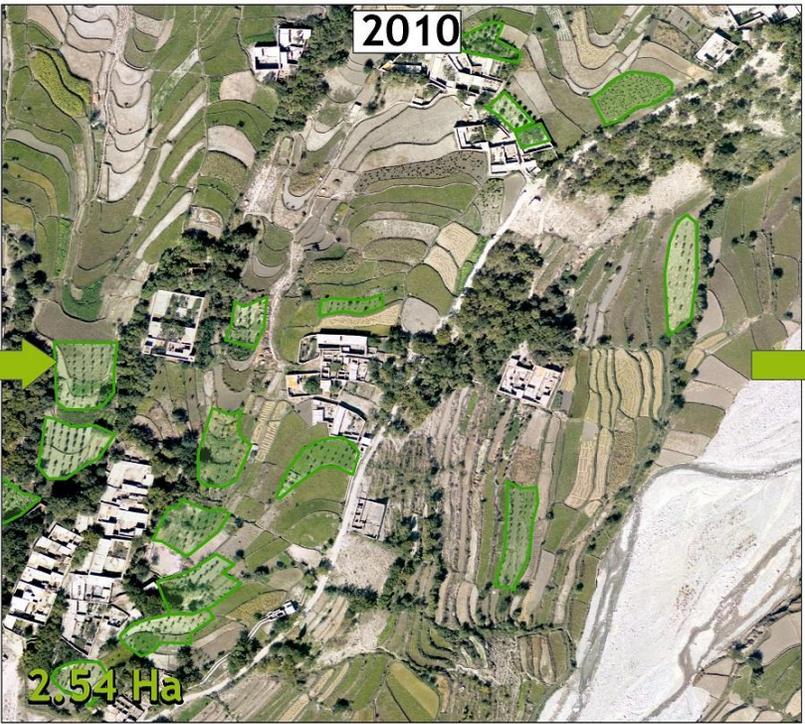
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IDEA NEW POPPY EVALUATION

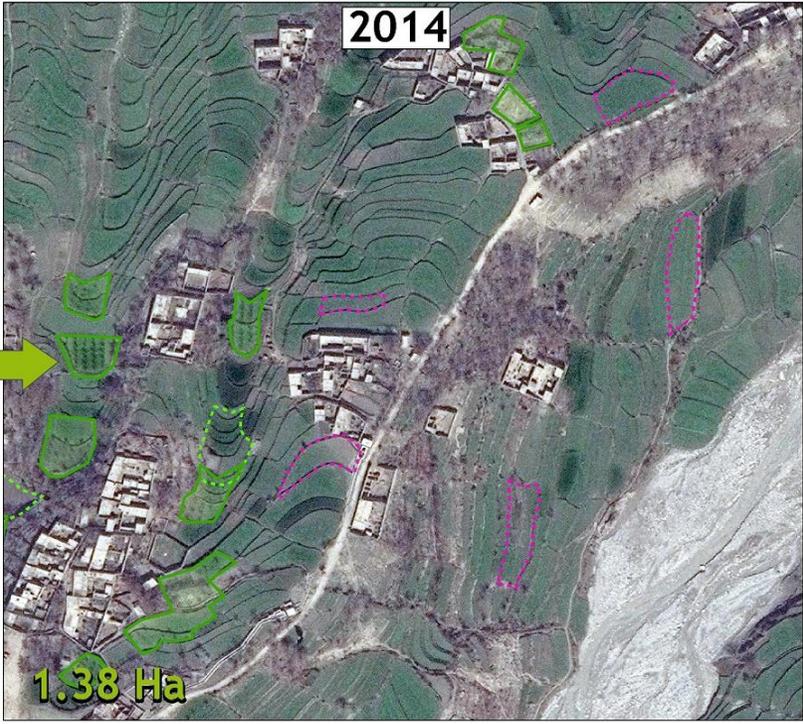
Research Site 3 - Changing Orchards



Data Notes
Orchard locations and areas captured from imagery by Alcis



Data Sources
Imagery: 2007 - TIW; 2010 - Buckeye; 2014 - World View 2



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IDEA NEW POPPY EVALUATION

Research Site 20 - Changing Orchards



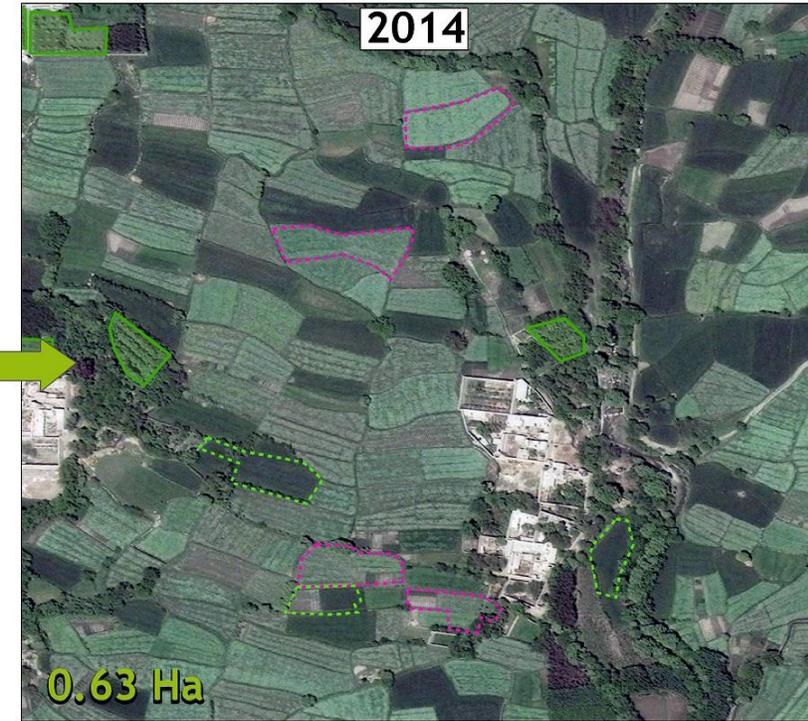
Data Notes

Orchard locations and areas captured from imagery by Alcis



Data Sources

Imagery: 2007 - TIW; 2010 - Buckeye; 2014 - World View 2



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