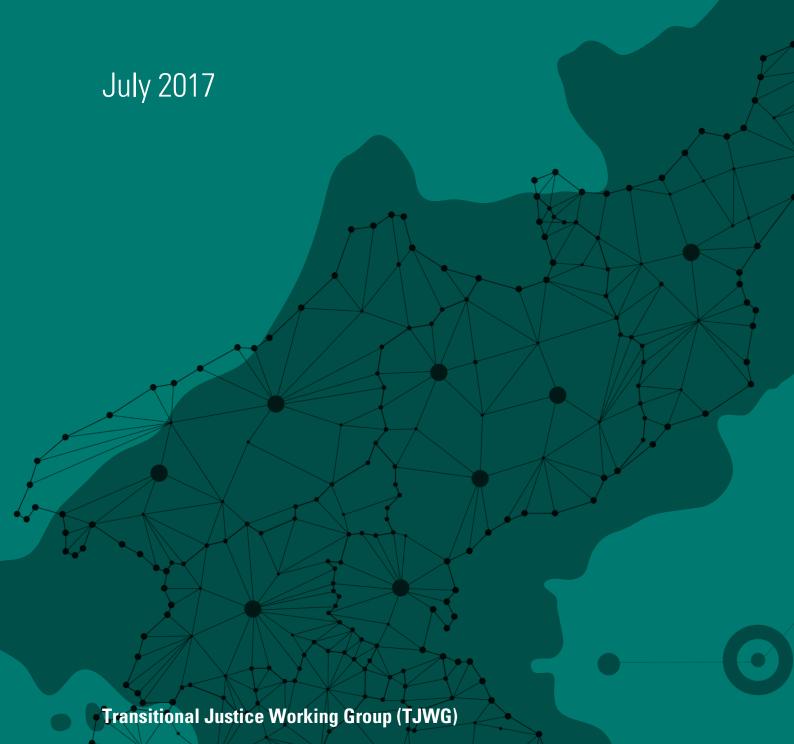


Mass Graves, Killing Sites and Documentary Evidence



Mapping Crimes Against Humanity in North Korea

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Contents

```
Acknowledgements 5
Executive Summary 8
About TJWG 10
Mapping Crimes Against Humanity 11
     Background 12
     Transitional Justice for the Korean Peninsula 15
     Purpose of Documentation for Mapping Human Rights Abuses 17
     Limitations 19
     Methodology 20
           Overview 20
           Data Collection and Classification 21
           Data Review and Site Analysis 24
           Data Management 24
     Demographic Data 25
     Main Findings 28
           Witnessed or Suspected Body Sites 29
           Killing Sites 37
           Possible Repositories of Documentary Evidence 43
     North Korean Defector Participation in Research 46
     Interim Conclusions and Policy Implications 54
     Future Plans for Documentation and Advocacy 56
```

Maps, Charts and Tables

Map 1	Suspected Body Site Groupings by Province 34	
Map 2	Suspected Burial Site Grouping Near Killing Sites 35	
Map 3	Suspected Cremation Site Grouping 36	
Map 4	Suspected Killing Sites by Province 41	
Map 5	Cluster of Suspected Killing Sites Near Waterway 42	
Map 6	Hyesan City: Suspected Sites with Documentary Evidence 45	
Chart 1	Methodology 20	
Chart 2	Participant Gender Breakdown 25	
Chart 3	Participant Age Breakdown 25	
Chart 4	Year of Last Defection from North Korea 25	
Chart 5	Primary Province Resided 26	
Chart 6	Experience of Violence While in North Korea 47	
Chart 7	Necessity of Exhumation of Burial Sites Containing Victims of Human Rights Abuses 48	
Chart 8	Reasons Why Exhumations of Burial Sites Containing Victims of Human Rights Abuses are	
	Necessary 49	
Chart 9	Reasons Why Exhumations of Burial Sites Containing Victims of Human Rights Abuses are	
	Unnecessary 49	
Chart 10	How Leaders Should Prioritise Their Efforts After a Transition in North Korea Regarding Burial Sites	50
Chart 11	Should Perpetrators of Human Rights Abuses Receive Prosecution and Punishment in Court 51	
Chart 12	Participant Views on the Fate of Those Who Committed Violent Human Rights Abuses in North Korea	52
Chart 13	Necessity of Victims Receiving Financial Reparations 53	
Table 1	Site Sensitivity 23	
Table 2	Quality of Participant Testimony 24	
Table 3	Sensitive Sites by Category and Type 28	
Table 4	Key Map Descriptors 29	

Executive Summary

"International norms and standards require that those responsible for human rights violations in the Democratic People's Republic of Korea, in particular for crimes against humanity, be held accountable."

This report presents the initial findings of our project, "Mapping Crimes Against Humanity in North Korea" (the Mapping Project), which identifies **locations of suspected mass burial sites, killing sites and possible sites containing documentary evidence** linked to crimes against humanity in North Korea.² In support of the international push for accountability for decades of systematic human rights abuses, it contains maps and numbers on these three categories of sites, based on two years of interviews with 375 former residents of North Korea.

The Mapping Project records specific location coordinates for sites identified that may contain evidence connected to human rights abuses that are within the scope of our inquiries. Using publicly-available Google Earth satellite imagery, the research participants identify the locations and key features of the sites types. The coordinates and associated testimonial data are then categorised and used to create visual maps.

The maps and the accompanying testimonies create a picture of the scale of the abuses that have taken place over decades. Certain patterns in the abuses are also emerging, even at this early stage of the research process. Our initial research indicates that burial sites are often located in mountainous areas, away from residential areas, but may also be found in parts of common cemeteries and around prisons. Killing sites tend to be found in river beds, market places, near bridges, facilities for detention and imprisonment, and sports fields. Although it is beyond our current capabilities to investigate and analyse the sites due to lack of access, this research is a crucial first step in the pursuit of accountability for human rights crimes. It is also designed to serve first responders³ who may enter North Korea in the future. Part of our work involves looking into rapidly advancing remote sensing (RS) technologies, designed to detect and enhance analysis of sites containing human remains, for future application in North Korea.

^{1.} "Report of the group of independent experts on accountability" (Geneva: United Nations Human Rights Council, February 13, 2017), para. 68. http://www.ohchr.org/Documents/Countries/KP/A HRC 34 66 Add 1.pdf.

^{2.} North Korea is officially known as the Democratic People's Republic of Korea (DPRK).

The report also contains selected findings from a survey of North Korean defectors. This survey gathers defector opinions on key accountability mechanisms, including bringing charges against perpetrators of human rights abuses, the adoption of truth-seeking mechanisms, the provision of reparations for victims, and the investigation and exhumation of mass grave sites in North Korea, among other potential measures.

The Mapping Project is still in its early stages: this report's publication is intended to attract wider participation from both informants and technical practitioners with expertise and knowledge that will advance the project.

^{3.} First responders are understood to include local and international NGOs, journalists, forensic scientists, health professionals and other "non-court actors" who are involved in arriving at crimes scenes before court investigators, "who may face diplomatic, legal or pragmatic obstacles to reaching atrocity sites." "First Responders: Workshop on Collecting and Analyzing Evidence of International War Crimes" (Human Rights Center: UC Berkeley School of Law, September 2014), https://www.law.berkeley.edu/files/HRC/First_Responders_final_with_cover4.pdf.

About TJWG

Transitional Justice Working Group is a Seoul-based non-governmental organisation (NGO) founded by human rights advocates and researchers from five countries in 2014. It is the first Korea-based NGO focussed on transitional justice mechanisms in the world's most oppressive regimes, including North Korea. We aim to develop practical methods for addressing massive human rights violations and advocating justice for victims and societies that are transitioning from a situation of conflict or oppressive government. We seek to build bridges between individuals and groups sharing a common commitment to the principles of democracy and self-determination, of peaceful and consensual conflict resolution, and of justice in pre- and post-transition societies. We collaborate and share our practices with other organisations and individuals concerned with the pursuit of accountability for mass atrocities and human rights abuses.

Our first two years of activities have included the development of a digital database and mapping system to document and visualise evidence of possible crimes against humanity in North Korea through our Mapping Project. The system under development allows us to collect information on alleged mass burial and killing sites, to be visualised in the form of digital maps. The data we collect also includes locations of national security offices, local police, military units and administrative units where documentary evidence may be stored. The preparatory work of locating these sites is crucial in preventing blanket amnesty for alleged perpetrators, and in quickly securing forensic and documentary evidence in the future for investigations and trials of individuals charged with serious human rights violations.

We are also engaged in a number of complementary projects, including working with the North Korean defector community to explore the localisation of transitional justice mechanisms to the Korean context. These mechanisms may include the establishment of courts to prosecute perpetrators, the initiation of truth-seeking activities, the creation of reparations measures for victims, and memorialisation of past events. Our work also involves assisting the organisational activities of families of persons abducted to North Korea. We invite international experts to South Korea to share with Korean human rights activists their experiences of dealing with societies in transition or post-transition elsewhere, and to shed light on key legal, institutional, technological and scientific advances that may contribute to preparations for a transition in North Korea. TJWG aims to create as an Asia-based human rights documentation hub focussed on defining and promoting advanced methods and best practices in support of transitional justice processes across the globe.



Mapping Crimes Against Humanity

The definition of "Crimes Against Humanity" was codified in paragraph 1 of article 7 of the Rome Statute of the International Criminal Court. It encompasses crimes such as murder, extermination, rape, persecution and all other inhumane acts of a similar character (wilfully causing great suffering, or serious injury to body or to mental or physical health), committed "as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack".

^{4.} "1998 Rome Statute of the International Criminal Court," ICC-PIDS-LT-01-002/11_Eng, (2002), https://www.icc-cpi.int/nr/rdonlyres/add16852-aee9-4757-abe7-9cdc7cf02886/283503/romestatuteng1.pdf.

Background

"It is now time to consider the concrete measures that should be taken to ensure accountability for these crimes and to set up a broader process of transitional justice." 5

The North Korean regime has long employed the most brutal means of abuse to control its population and retain its grip on power.⁶ In the last four years, the work of the United Nations Commission of Inquiry on Human Rights in North Korea (UN COI) has drawn widespread international attention to the problem in a way previously unprecedented, and has called for practical measures to end the abuses and pursue accountability for those responsible.

The systematic nature of the human rights abuses continuing in North Korea has resulted in a complex web of responsibility, whereby in some cases victims of abuses become perpetrators, while perpetrators may also have been subjected to serious violations of human rights. In addition, the violations which have taken place over decades are potentially so numerous that no judicial system can deal with the number of cases that may arise. It will be important for a future court to establish priorities when embarking on criminal proceedings, concentrating efforts on those who bear the greatest responsibility. In addition, the generalised and systematic nature of the crimes that have been committed poses a challenge in itself. Such crimes require complex investigations, and these cannot be carried out without significant material and human resources. These conditions form the backdrop for current research and the development of recommendations regarding the pursuit of accountability for North Korean human rights abuses.

The 2014 report of the UN COI presented grounds to argue that Crimes Against Humanity, including extermination, murder, enslavement, torture, imprisonment, rape, forced abortions, persecution, deliberate starvation, and enforced disappearances, have been committed, "pursuant to policies established at the

^{5.} Marzuki Darusman, "Statement by the United Nations Special Rapporteur on the Situation of Human Rights in the Democratic People's Republic of Korea," United Nations Office of the High Commissioner for Human Rights, September 9, 2015, http://ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16400&LangID=E.

^{6.} "Report of the Detailed Findings of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea," (Geneva: United Nations Human Rights Council, 2014), http://www.ohchr.org/EN/HRBodies/HRC/CoIDPRK/Pages/CommissionInquiryonHRinDPRK.aspx.

highest level of the state"⁷. At his statement to the UN Human Rights Council, COI Chair Michael Kirby, stated that the gravity, scale and nature of these violations – which have been perpetrated for decades – "reveal a state that does not have a parallel in the contemporary world".⁸ The Commission noted that extermination on the sole basis of political affiliations is not included in the contemporary definition of genocide under international law. However, it stated that the notion of the DPRK eliminating an entire class of people by deliberately creating the conditions that lead to massive deaths of people in political prison camps, may be seen as akin to genocide.⁹ The Commission further emphasised that Crimes against Humanity, in their own right, are crimes of such gravity that they not only trigger the responsibility of the state concerned, but also that of the international community to uphold its responsibility to protect the population of North Korea.¹⁰

The COI urged the United Nations Security Council (UNSC) to refer the situation in North Korea to the International Criminal Court (ICC). As a result, in December 2014 the United Nations General Assembly passed Resolution 69/188 to push the UNSC toward ICC referral.¹¹ However, a referral has yet to come to fruition and this is likely to remain the case, as long as UNSC members, China and Russia, maintain their opposition. Nevertheless, the UN COI made major inroads into raising awareness of the scale and nature of the abuses which have taken place in North Korea and the international community took note.

In February 2017, a UN-appointed group of independent experts on accountability for North Korea completed their first report and made a range of recommendations regarding the pursuit of accountability. Drawing on the recommendations of this report, in March 2017, the UN Human Rights Council passed a resolution to further strengthen the UN's work to assess and develop strategies to prosecute grave violations

^{7.} "Report of the Commission of Inquiry on human rights in the Democratic People's Republic of Korea," (Geneva: United Nations Human Rights Council, 2014), para. 75. http://www.ohchr.org/EN/HRBodies/HRC/CoIDPRK/Pages/CommissionInquiryonHRinDPRK.aspx.

^{8.} Michael Kirby, "Statement by Mr Michael Kirby Chair of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea to the 25th Session of the Human Rights Council, Geneva, 17 March 2014," United Nations Office of the High Commissioner for Human Rights, March 17, 2014, http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14385&LangID=E.

^{9.} "Report of the Detailed Findings of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea," para. 1157. An independent legal opinion commissioned by human rights group Human Liberty suggests that the current situation in North Korea may amount to genocide. For a detailed analysis see "Independent Report Finds Evidence of Genocide in North Korea," http://www.hoganlovells.com/en/news/independent-report-finds-evidence-of-genocide-in-north-korea.

^{10. &}quot;Report of the Detailed Findings of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea," para. 1204.

^{11.} General Assembly Resolution 69/188, Situation of human rights in the Democratic People's Republic of Korea, 18 December 2014, http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/a_res_69_188.pdf.

in North Korea. The resolution includes provision for strengthening the UN Human Rights Office in Seoul to include international criminal justice experts who will develop plans for the eventual prosecution of North Korean leaders and officials responsible for human rights crimes. The new resolution also provides for the establishment of an independent central repository to receive, preserve and consolidate information and evidence related to the human rights situation in North Korea, for use in any future accountability process. TJWG sees the Mapping Project as having the potential to contribute selected data to this repository as part of the collective effort to support the push for accountability, as well as for future efforts to institute a process of transitional justice following a change in the political conditions in North Korea.

^{12.} Human Rights Council Resolution 34/24, Situation of human rights in the Democratic People's Republic of Korea, (20 March 2017), http://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/34/L.23.

Transitional Justice for the Korean Peninsula

"The crimes described in the report of the commission of inquiry are of a gravity rarely seen... These crimes are of international concern and cannot go unpunished." 13

The UN defines transitional justice as "the full set of processes and mechanisms associated with a society's attempts to come to terms with a legacy of large-scale past abuse, in order to secure accountability, serve justice and achieve reconciliation."¹⁴ Transitional justice is an approach to recovery from conflict and oppressive government that aims to both recognise victim experiences, and prevent similar victimhood in the future, by being both "backward-" and "forward-looking".¹⁵ The components of transitional justice include five key elements, as defined by the UN:

- 1. Prosecution initiatives;
- 2. Facilitating initiatives in respect of the right to truth;
- 3. Delivering reparations;
- 4. Institutional reform;
- 5. National consultations. 16

Despite the inability to predict when a transition may occur in North Korea, or what form that may take, undertaking a fair and transparent process of transitional justice will be a crucial part of determining the success of peace-building and reconciliation on the Korean Peninsula.¹⁷ With the findings of the UN COI providing a grave assessment of the state of human rights in North Korea, and its particular focus on

^{13. &}quot;Report of the group of independent experts on accountability," para. 76.

^{14.} UN Security Council, Report of the Secretary-General on the rule of law and transitional justice in conflict and post-conflict societies, UN Doc. S/2004/616 (2004), iii, para. 8, https://www.un.org/ruleoflaw/files/2004%20report.pdf.

^{15.} Buhm-Suk Baek, Lisa Collins, and Yuri Kim, "Transitional Justice in Post-Unification Korea: Challenges and Prospects," in Transitional Justice in Unified Korea (New York: Palgrave Macmillan, 2015), 13.

^{16.} "Guidance Note of the Secretary General: The United Nations Approach to Transitional Justice" (United Nations, 10 March 2010), 7–9, https://www.un.org/ruleoflaw/files/TJ Guidance Note March 2010FINAL.pdf.

^{17.} Baek, Collins, and Kim, "Transitional Justice in Post-Unification Korea: Challenges and Prospects," 11.

accountability for the regime's leadership and the authorities responsible for those abuses, transitional justice has entered the discourses of South Korean civil society and international organisations concerned with North Korean human rights.

There are several key points a transitional justice perspective brings to the table, which we seek to observe in our project design and in the reporting of our findings, as well as in our strategic planning for the future:

- The need to engage with the North Korean defector community to learn how to ensure the North Korean population inside the country feels a sense of ownership over a future transitional justice process, and to enhance its legitimacy;
- II. To contribute to planning and design of transitional justice ahead of a transition in North Korea, to ensure the swift and effective introduction of the appropriate institutions and mechanisms that promote stability and appropriate redress, leading to long-term peace and reconciliation;
- III. To avoid blanket amnesty and prevent impunity at the time of transition, by ensuring that documentation and the collection of evidence is already well underway in advance of that transition;
- IV. To contribute toward striking a balance between international intervention that catalyses a transitional justice process, and domestic ownership which ensures the Korean people feel adequately empowered to undertake a legitimate transitional justice process.

Our projects concentrate on the accountability aspect of transitional justice in line with the UN's focus in the COI report, and subsequent initiatives of the UN Special Rapporteur and the UN group of independent experts. The current focus of our work is on the gathering of evidence that may serve accountabilityseeking processes in the future, while adhering to the highest standards of human rights documentation practice, and exploring and applying innovative methodologies to this process.

Purpose of Documentation for Mapping Human Rights Abuses

In April 2015, with funding from the National Endowment for Democracy (NED), TJWG began developing a digital mapping system to collect, record and visualize evidence of crimes against humanity in North Korea in the form of digital maps.

The sites that are the focus of our attention are at risk due to a lack of site access to facilitate proper preservation, the absence of a professional effort to document and analyse them, and the possibility that the North Korean regime or individual perpetrators would seek to destroy evidence and tamper with sites to avoid incrimination. The consequences for our research are a need to map suspected sites remotely, and to prepare first-responders for the conditions they may face at a time when access to the country becomes possible, including swift direction to the location of evidence.

The key objectives of the Mapping Project are as follows:

- I. To gather location-based data that contributes to an accurate account of the North Korean regime's human rights abuse record;
- II. To **support ongoing advocacy efforts** by increasing the amount and types of documentation available, providing a foundation for increased international pressure on the regime;
- III. To gather, analyse and provide data to support future accountability measures against the leadership of the North Korean government;
- IV. To develop maps that can serve as a foundation for the future exhumation of victims' remains, to help victims' families discover the whereabouts of their loved ones, and assist in future truthseeking and memorialization activities;
- V. To engage with experts and practitioners to develop research methodologies that are at the leading edge of scientific and technological advances in the field, in a context where direct access to sites of evidence is restricted, and prior to a transition having taken place;
- VI. To work toward integrating location-based data and remote sensing (RS) technologies to complement existing human rights documentation efforts that employ narrative, incident-based interviews and reporting.

Location-based mapping of this kind contributes to a larger process of "mapping" the full nature and scale of systematic human rights abuses in North Korea. The Mapping Project represents a fundamental step in enabling the identification of challenges, the assessment of needs and better targeting of interventions. At this stage, given limited resources and current regional politics, our activities are not intended to extend to in-depth investigations or the provision of evidence admissible in court. Rather, we aim to gather information that serves as a basis for initial hypotheses for future criminal investigation, giving a sense of the scale of the human rights violations, their locations, and the victims and their approximate number.

The decision to release this research report during the early stages of our research, rather than waiting until we have a larger body of data, is based on a need to identify and invite participation in this project from additional contributors who may hold relevant information, as well as professionals with knowledge and expertise that may advance the sophistication and application of our findings. It is important at this stage to build effective momentum to increase our capacity and the quality of our data and methodology, as this is a long-term project which is evolving and improving continually. While our current findings exhibit certain limitations, and the data we hold does not yet represent a comprehensive body of evidence, our current projects align directly with the UN's recommended direction, and it is important that this work be made public now, in order to invite contribution as it progresses.

Year 1 Pilot Phase: 2015-2016

In the first year of research 100 participants were interviewed, enabling the team to understand the requirements of the project, including issues with designing the research database and system requirements in terms of digital security, the use of satellite maps, recording locations and mapping. A range of domestic and international experts and organisations involved in the provision of technical assistance, research design and information management in the field of human rights were consulted in order to identify and develop the technological solutions required for the project.

Year 2 Implementation Phase: 2016-2017

In the second year of research, a further 275 participants were interviewed, moving into an improved infrastructure for conducting the interviews. Further efforts were made to continue to consult experts on the design of the technological systems required for the project. Toward the end of the year significant progress was made with the implementation of a Geographic Information System (GIS) database and software to visualise the data, which were of great help in creating this report. Year two concludes with the publication of this report.

Limitations

The information in this report should be understood as developing and not definitive. Given the existence of a number of civil society and government organisations¹⁸ that focus on collecting incident-based accounts of human rights abuses, we have worked hard to develop a methodology and findings that do not duplicate existing work. Our focus on location-based documentation is designed to complement existing human rights documentation initiatives, while providing credible methods of mapping the locations of infrastructure, people and evidence which may be mentioned in narrative testimonies.

We do not evaluate the criminal or legal remedies which might apply to specific sites and the events which are believed to have occurred there. Currently, the objective of the Mapping Project is not to try to establish individual criminal responsibility of given actors, but rather to expose in a transparent manner the extent of the violations committed and their systematic nature. It is our intention to provide our data to the relevant legal authorities at a time when we expect the necessary criminal investigation to take place.

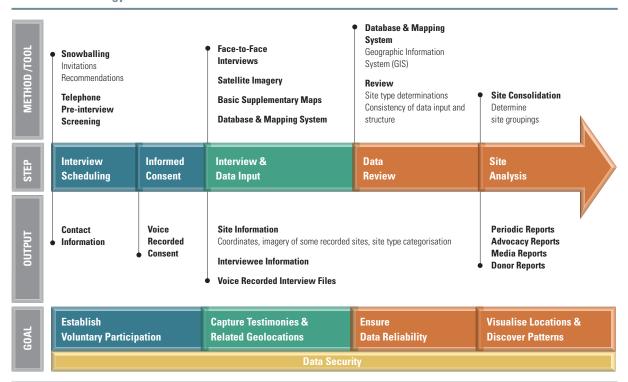
^{18.} These include the Database Center for North Korean Human Rights (NKDB), the state-run Korea Institute for National Unification (KINU), the South Korean Government's recently-established Center for North Korean Human Rights Records and the UN Human Rights Office in Seoul.

Methodology

Overview

We have spent much of the first two years of research designing a methodology that meets established key human rights documentation standards and requirements. The chart below presents this methodology in summary as it stands at present.

Chart 1: Methodology



Research participants are invited by recommendation from previous participants – the snowballing method. Although the sample of North Koreans living in South Korea is not random, it was determined at an early stage that this method made the best use of our limited resources.¹⁹ Prior to interview, the

^{19.} Interviewees receive a small stipend for their participation—intended to compensate the cost of travel and a meal. The commitment required from participants to travel to the office, take part in the interview process and return home is usually around 4-5 hours.

participants are asked to provide informed consent,²⁰ respecting the core principle for documenting information of "do no harm", while seeking to adhere to international standards of human rights documentation that establish voluntariness.²¹

Data Collection and Classification

No external party documenting human rights abuses has direct access to North Korea and there are those who have assumed that North Korean defector testimonies are unreliable. Without the ability to selectively verify testimonies and conduct investigations on the ground, both researchers and North Korean defector sources face numerous challenges to providing data that can be considered reliable. However, by using satellite imagery during interviews (rather than focusing solely on recording names and details in narrative form or attempting to identify specific coordinates later), we help both the interviewees and researchers to enhance the accuracy of the locations they seek to identify. At the time of writing, we have interviewed a total of 375 North Korean defectors (100 in the pilot phase, and 275 in year two).

Interviews:

During the research interviews, participants are shown satellite imagery of their hometowns or areas very familiar to them using Google Earth. Landmark information from a few sources is overlaid on the imagery to help the interviewee situate him/herself: a tailored version of a map by Curtis Melvin.²² Our tailored maps contain very basic, selected labels, currently limited to the locations of train stations, rail lines and occasionally other key landmarks to help interviewees orient themselves initially. Interviewees are asked to locate points or areas in response to our research questions. We then record the points or areas (as polygons), depending on what the interviewee is describing.

^{20.} Informed consent is defined as "Ensuring that consent is based on adequate disclosure and understanding of: the potential benefits and adverse consequences of providing information, including the nature of the process, why the information is being sought, how the information will be used and possible consequences; their right to refuse to participate; and that consent is given voluntarily without coercion by others." "Handbook on Civil Society Documentation of Serious Human Rights Violations: Principles and Best Practices" (Washington, D.C.: Public International Law and Policy Group, 2016), 9.

^{21.} "Broadly Accepted Practices in Human Rights Documentation: Informed Consent," Human Rights Documentation Toolkit (Washington, D.C.: Public International Law and Policy Group, 2016), 6. Participants are made aware of their right to withdraw their participation and the researcher explains the intended application of the data they provide us. The researcher also takes time to explain the security procedure to reassure them of any concerns they may have about the safety of their testimony. An FAQ is made available on the TJWG website which addresses a range of common concerns which arise for North Korean defector participants in human rights documentation research. https://www.tjwg.org/mapping/participation.php.

^{22.} Map made publicly available by Curtis Melvin: North Korea Uncovered, Version 18, June 25, 2009: http://www.nkeconwatch.com/north-korea-uncovered-google-earth. We also make use of Open Street Map (https://www.openstreetmap.org), the 38 North DPRK Digital Atlas (http://38northdigitalatlas.org) and an online map produced by South Korea's National Geographic Information Institute (http://map.ngii.go.kr/ms/map/NlipMap.do).

The interviews generally begin with questions about places where participants most recently resided before escaping from North Korea. Some participants ask the researcher to show them maps of the other places they are also familiar with, where they may have lived for a longer time, or where the participant considers to be their location of primary residence while in North Korea. The participants are then asked to orient themselves from the local train station, and point out non-sensitive sites, such as the locations of their neighbourhood, the administrative offices, police stations, and market places. However, if informants struggle to identify these well-known locations from the bird's-eye perspective of satellite imagery, the interviewer may ask the participants to begin again at the train station and then guide themselves through the areas from memory (focusing less on the map) as if they were walking at ground-level while giving directions left and right, which often helps situate them accurately.

Site recording:

The decision to record a sensitive site is based on a number of criteria, applied at the discretion of the researcher. In the case of public execution sites, the primary sources for recording sites are those who have been direct eye-witnesses to executions, or those who have heard directly from a third party who was a witness to a public execution. However, in certain circumstances where information from mere hearsay or rumour is deemed important, it may also be recorded. Regarding the details of those executions, even eye witnesses often do not remember specific information about the gender, age, precise number executed, the exact date or year when a specific execution occurred, or how often executions took place. As time goes on, we intend to consolidate and assign levels of confidence to accounts regarding single locations with multiple witnesses.

Site categorisation and verification:

As the primary objective of the Mapping Project is to gather location-based information relating to mass graves, killing sites and possible sites of documentary evidence, the standard of proof required is naturally lesser than would be expected from a case brought before a criminal court. The question is therefore not one of being satisfied beyond reasonable doubt that a location is genuine, but rather of reasonably suspecting that an incident has occurred there. Although at present the lack of access to North Korea prevents on-site verification of locations and events, it is hoped that when the situation allows, it will be possible to establish a "reasonable suspicion" about the sites mapped to guide further physical investigation.²³ Without physical

^{23.} In line with the standard set by other investigative mapping projects in other settings, "reasonable suspicion" is defined as "necessitating a reliable body of material consistent with other verified circumstances tending to show that an incident or event did happen." "Report of the Mapping Exercise Documenting the Most Serious Violations of Human Rights and International Humanitarian Law Committed within the Territory of the Democratic Republic of the Congo between March 1993 and June 2003" (United Nations Human Rights Office of the High Commissioner, August 2010), 4—5.

access to the sites we seek to record at present, all sites are regarded as "suspected" until such a time as political conditions make it possible to "confirm" the sites' contents.

For the time being, sites are categorised according to whether they are **sensitive** or **non-sensitive**. Sensitivity is assigned according to the perceived likelihood of a site being tampered with by the North Korean regime. In the case of burial sites, tampering may involve moving bodies and attempting to conceal the sites and their contents. Regarding both burial and killing sites, tampering may include destroying circumstantial evidence also, such as clearing away and destroying bullet casings used in executions, clothing of victims and other physical remains of an incident.

Non-sensitive sites are those that are already known to the public, such as police stations. These locations may contain supporting documents about deaths and information related to these events including dates, places, and names of individuals. The outside knowledge of these sites is not deemed a threat to the regime, as the regime would not seek to move the location of a police station in the event of the site being mapped and made publicly available.

Table 1: Site Sensitivity

Category	Definition
Non-sensitive (unlikely to be tampered with by the regime)	Sites likely to contain documentary evidence relevant to future investigations and possible legal proceedings regarding human rights abuses. These include police stations, detention facilities and local government offices.
Sensitive (likely to be tampered with by the regime)	Execution sites: public or non-public Body sites: Sites where bodies are buried or otherwise disposed of (by cremation, dumping, abandoning, etc.) or temporarily stored before disposal.

As it is impossible to verify the sites identified by research participants without physical access to the country, the researcher makes determinations about the quality of the witness testimony in general, as well as the likelihood that the location identified is accurate, based on the researcher's assessment of the participant's connection to information about a particular location. There is no universally established scale or method for doing this; however, a common method applied in other contexts of documentation of mass human rights abuses is the *admiralty scale*. Here the reliability of the source and the information is determined by several factors, including cross-checking with a variety of sources aside from the primary source. At this stage in our research, such corroboration is not possible; however, this is a goal the Mapping Project is working toward as our data accumulates. For the time being, an adaptation of the *admiralty scale* has been designed for application in our research, as follows:

Table 2: Quality of Participant Testimony

Scale	Source relationship to location/event
More reliable	Directly saw (i.e., was physically present)
A	Directly heard (i.e., was physically present)
1	Heard directly from witness
	Heard directly from victim
	Heard directly from perpetrator or person involved in carrying out act
	Heard from person in a position believed to have reliable knowledge, but who was not present at the incident
	Heard as a rumour
*	Guessed, or believed to be the case
Less reliable	Unknown

Data Review and Site Analysis

Regular data reviews involving team members with different functional roles (such as research and technical) are necessary to:

- 1. Catch and reduce human error;
- 2. Ensure that the interviewer(s)/researcher(s) record and categorise testimony consistently in the system;
- 3. Identify and decide how to handle as yet unseen cases as they arise;
- 4. Catch loopholes, weaknesses or differing interpretations of the definitions of the database fields;
- 5. Learn how to improve the system to meet the needs of the researchers.

Finally, a process of site analysis is needed, including consolidation of sites at certain intervals to gain an overview of the data collectively, to assign significance to sites and to look for relationships between points collected. More about site consolidation can be found in the main findings section of this report.

Data Management

Data security has been a high priority from the beginning in the design of the system to reduce the risk that the information we collect could be hacked and/or the identified grave sites tampered with by the North Korean authorities. We actively seek and receive advice from technology-based organizations and experts in the field of digital security and geospatial information systems.

Demographic Data

The following data captures the demographic makeup of the Mapping Project participants.

Chart 2: Participant Gender Breakdown

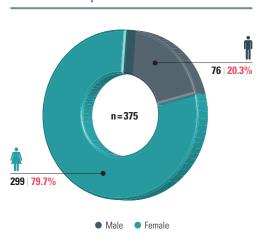


Chart 3: Participant Age Breakdown



Chart 4: Year of Last Defection from North Korea

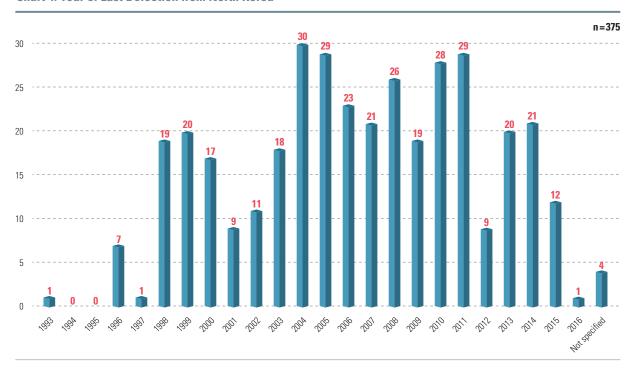
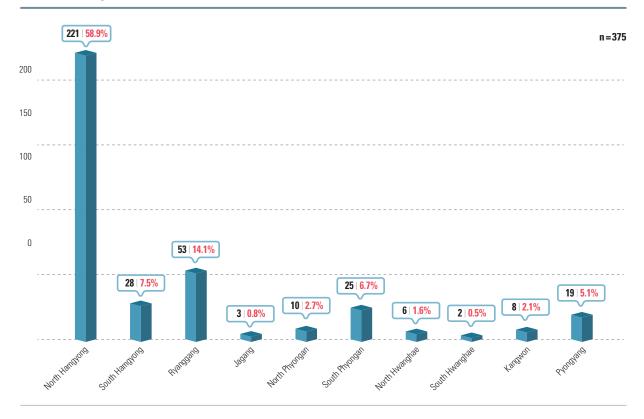


Chart 5: Primary Province Resided 24



The research sample was not randomly selected. However, when compared to South Korean Ministry of Unification statistics, our sample resembles the gender makeup of the general defector population, although it comprises around 9% more women than in the total population residing in South Korea at present.²⁵ The year of last defection tallies with the overall number of defectors who have arrived in South Korea over time, with

^{24.} Although freedom of movement is controlled in North Korea, interviewees may have been resident in more than one location throughout their time living in the country. The reasons for this are varied, and may include being relocated for military service, marriage, work assignment or education, being moved for detention, deportation from metropolitan areas, illegal movement in search of food during the famine period of the midto late-1990s, and movement for trading (official and unofficial) since that time. This chart presents only the province of primary residence — where the participant spent most of their time in North Korea.

^{25.} As of September 2016, the total number of North Koreans to arrive in South Korea was 29,830: 29% of those are men, and 71% are women. This number reflects the total who have entered South Korea; however, some of these individuals have subsequently left the South to settle in third countries or may have passed away since first arriving, hence the actual number resident in the South is slightly lower. Several defectors have also returned to North Korea. North Korean Refugees Foundation (Korea Hana Foundation), Ministry of Unification, Republic of Korea, https://www.koreahana.or.kr/intro/eGovHanaStat.jsp.

the highest numbers arriving between 2004 and 2011.²⁶ The majority of our participants are from North Hamgyong Province, where the border river with China is relatively easy to cross on foot. It is thus the origin of a large proportion of North Korean defectors (see shading in Map 1 for the number of interviewees from each province).²⁷

^{26.} Prior to the early 1990s, there were a mere handful of North Korean defectors in South Korea. However, as the North Korean famine of the midlate 1990s unfolded, thousands fled the country, almost exclusively across the northern border with China. They were often assisted by networks of middlemen who continue to facilitate movement from North Korea to South Korea and elsewhere today, via third countries including Thailand, Laos and Cambodia. The journey is fraught with danger, as China routinely repatriates those caught in its territory. "Perilous Journeys: The Plight of North Koreans in China and Beyond" (International Crisis Group, October 26, 2006). Ministry of Unification, "North Korean Refugees & Resettlement," http://eng.unikorea.go.kr/content.do?cmsid=3026.

^{27.} The northern border region is heavily securitised, which may affect the volume of abuses that occur there. These potential biases regarding North Hamgyong may affect the ability to generalise the findings of this report across the entire country; however, it is difficult to determine this at this early stage in the research.

Main Findings

Table 3 describes the types of sites and the number of each that the Mapping Project has identified so far. It must be noted that most of these numbers are **pre-consolidation** numbers. In other words, the figures provided reflect the number of times each type of site has been identified by participants, **prior to a review of the data to consolidate possible multiple mentions of the same site, which is expected to reduce the numbers to final figures (for what we refer to as site groupings) for each type of site. To date, we have done site consolidation only for the 52 body sites identified by interviewees, which yielded 47 site groupings (see Map 1 for their distribution by province).**

A **witnessed burial site** refers to a site which has been recorded on the basis of an interviewee having stated they were a direct witness to the site, whereas a suspected burial site refers to a site which the participant said

Table 3: Sensitive Sites by Category and Type

Category	Sensitive Site Type		Pre-consolidation Number
В	Witnessed burial site		7
В	Suspected burial site		35
В	Burial site within community cemetery		2
В	Cemetery for prisoners of war		1
В	Storage place for dead bodies		2
В	Location of uncovered, unburied, or exposed bod	ies	2
В	Place for disposal of bodies by cremation		3
K	Killing site — shooting (if n killed < 10)		283
K	Killing site — mass shooting (if $n \ge 10$)		7
K	Killing site – hanging		40
K	Killing site – burning		1
K	Killing site – arbitrary killing		2
T	Public trial only site		8
	Total		393
	E	— Dead body sites/sightings	52
	k	— Killing sites	333
	Т	- Trial only sites	8

they heard about from another source, without being a direct witness to its existence.

Finally, the geographical images presented in the sections which follow use a number of different terms to describe the locations mapped. Table 4 explains these terms:

Table 4: Key Map Descriptors

Term	Definition
Point	A site consisting of a single set of coordinates.
Polygon	A site consisting of an area bounded by multiple sets of coordinates.
Site Grouping	One or more points or polygons which have been matched during a process of site consolidation (if there is only one site in a grouping, it means there is no matching site yet). Usually of the same or similar site type and usually within 200 metres of each other. When a grouping consists of two or more points/polygons which have come from different interviewees, it increases the confidence we can have in the site grouping, compared to a single, uncorroborated site.

Witnessed or Suspected Body Sites

There is no accepted international definition of a mass grave or mass burial site, so interpretations vary across contexts. In this research, we take into consideration the means of death, as well as the nature of the site. Mass graves are distinct from common burials. One UN special rapporteur has sought to define a mass grave as one containing three or more bodies of victims of extrajudicial, summary or arbitrary executions, not having died in combat or armed confrontations.²⁸ The bodies in a mass grave have usually been buried over a limited period, when there is a desire to bury the corpses quickly for sanitation reasons, or to hide the evidence from the public eye (i.e., during a famine or after a massacre).²⁹

The crimes for which the UN COI found reasonable grounds for establishing that crimes against humanity have been committed in North Korea include extermination, murder and forced disappearances – acts

^{28.} International Criminal Tribunal for the Former Yugoslavia Bulletin (1996). Twin Tribunals ICTY9/10, 14-VIII-1996.

^{29.} It should be noted that changes to a North Korean law on cremation (adopted in 1998 and last amended in 2006) state that bodies of the dead should be cremated. However, it has been reported that a lack of available fuel over the last several decades has led to a continuing practice of not cremating bodies. More recent reports have emerged of relatives of the dead defying further regulations on cremating bodies by postponing funerals or clandestinely moving and burying bodies at night to avoid the notice of authorities. The new regulations favouring cremation are alleged to be part of a Central Party mandate on reforestation, designed to deal with the "myriad tombstones and burial mounds peppering the mountainsides", which are visible from the roads below and deemed a "national disgrace". Song Min Choi, "Afforestation Efforts Alter Burial Practices," Daily NK, April 5, 2015, http://www.dailynk.com//english/read.php?catald=nk01500&num=13147.

directly relevant to the grave sites we seek to locate.³⁰ In addition, the commission found that crimes against humanity have been committed against starving populations, particularly during the 1990s:

These crimes arose from decisions and policies violating the rights to food, which were applied for the purposes of sustaining the present political system, in full awareness that such decisions would exacerbate starvation and related deaths of much of the population.³¹

The remains of those who were victims of such crimes may be located in unmarked sites or in community cemeteries. Due to our work with the families of those who have been abducted by the North Korean regime over the past 60 years or more, the research also includes the possible locations of the burial sites of former prisoners of war and abductees from other countries, including South Korea and Japan. The main aim of this research is to mark the locations of those sites where victims of abuses are believed to be located, for future investigation purposes. While the majority of these sites are burial sites, some of those identified by interviewees were sites where the bodies were not buried but rather abandoned, dumped, hidden without burial, or were storage sites for bodies yet to be buried or cremated – hence the application of the term 'body sites'. Sites where burials *had* taken place may be part of a regular community cemetery,³² a grave site near a detention facility or an unmarked site elsewhere.

Forensic archaeologists investigating such sites in other settings are equipped with the skills to detect whether, for example, remains have been buried over a longer or shorter time-span, or whether in haste or with concern for the welfare of the corpse. It is this type of on-site analysis which will form an essential part of future investigation efforts.³³ This research therefore inquires specifically into possible locations of burials of individuals who may have been victims of human rights crimes, particularly sites where more than one body is believed to be buried.

On the basis of our interviews, the suspected sites we have identified so far are thought to be the burial sites of people who have been executed in public or in secret, those who have died while undergoing interrogation or torture by the police (Ministry of People's Security, *inmin boanseong*/인민보안성 or *anjeonbu*/

^{30. &}quot;Report of the Commission of Inquiry on human rights in the Democratic People's Republic of Korea," para. 76.

^{31.} Ibid, para. 78.

^{32.} Justice for Iran – a UK-based human rights NGO - has found that the Iranian government buried multiple individuals who were victims of human rights violations in sections of regular community cemeteries in order to minimise detection. Shadi Sadr, Executive Director, Justice for Iran, personal interview, 21 July 2016, See also http://justiceforiran.org/.

^{33.} Dr. Jennie Jin, Project Manager, US Defense POW/MIA Accounting Agency (DPAA), personal interview, 11 April 2017.

안전부) or the Ministry of State Security (*gukga bowiseong*/국가보위성 or *bowibu*/보위부), people from temporary detention facilities (*jipgyelso*/집결소) or from the larger, correctional prisons (*gyohwaso*/교화소) and political prison camps (*gwalliso*/관리소) who have died because of acute malnutrition, disease and other medical complications exacerbated by their imprisonment, or from beatings, torture or forced labour imposed by the authorities. Testimonies were also received regarding burials of those who had died of starvation during the famine period. The burials are often located on mountainsides or valleys and are unmarked. However, we also received testimony of bodies occasionally being found exposed in villages and other residential areas.

Interviewees identified burial sites by a range of means. The burial sites for prisons (*gwalliso* and *gyohwaso*) were identified by some former inmates and prison officers. These sites tend to be in unpopulated areas near the prisons, to avoid the notice of local villagers. However, despite efforts at concealment in some instances, dead prisoners were described as being "dumped" on the mountainsides, where numerous small burial mounds were visible along frequently-used walking tracks, according to the testimony of one interviewee (a former prison guard). Two participants described having knowledge of burial sites containing 10-15 bodies together in a single pit. Tree-felling is a common task required of prison camp inmates, and a number of interviewees described having come across dead bodies in the mountains near prison camps during such work.

Others described seeing those responsible for burying prisoners returning to the correctional prisons (*gyohwaso*) from their work. These individuals were able to give descriptions of the routes taken, the locations of burials where known, and topographical features of the sites they described. Regarding the process of burying the dead from the prisons, an interviewee gave testimony of some prisoners being placed in rough wooden coffins which required six prisoners to carry them, given their malnourished and weakened state. In one instance, prison officers placed radishes in a sack for the prisoners to eat as a reward after completing the burials. Testimony was also received of over a dozen prisoners killed in a building collapse at a construction site, after which the bodies were stored in a warehouse.

Some interviewees described cremation sites used by some prison camps to dispose of human remains. Three people who were former prisoners in the same facility gave independent testimony of the frequent disposal of multiple bodies of the dead from the prison. One former inmate told of how once a week the dead bodies were moved to a cremation site, from where the smell of burning bodies could be detected on a regular basis. In the summer time, or during the outbreak of an infectious disease such as typhoid, bodies would need to be disposed of quickly. Further testimony described how the crematorium at a prison facility ceased operation in the early 1990s due to the lack of fuel, so rather than the bodies being burned, they were dumped and left "like trash". When bodies were burned, they were piled upon each other and not fully cremated.

Outside the prison system, the people buried tend to be of two types: people who died of starvation during the famine, and those who died being tortured during interrogation, or as a result of accidents, disease or acute malnutrition while in police custody. During the famine period of the mid-late 1990s, there were many dead bodies on the streets, and those bodies were collected and removed by truck and taken to burial pits containing 5-10 bodies together. If individuals died of starvation outside their home region and were unidentified, the local police station would be responsible for disposing of these bodies. Local people would report the bodies to the police, who had an organised disposal process. Those who starved to death tended to be buried in or alongside ordinary cemeteries in a pit of up to 10 bodies together.

Those people who have been executed or died as a result of torture or illness while in police custody are swiftly transported to mountainous areas away from the city, to avoid the notice of the public. If there is a mountain around the police station or state security office building, the bodies tend to be buried in this area, whereas in other locations the bodies have to be taken some distance away from the police station to the nearest mountainous area. In general, the mountains around police buildings and state security buildings are secure areas where the public are prohibited from entering, and a number of interviewees indicated their belief that this was because these areas contained burials. However, these patterns of burial varied between different cities and administrative areas.

Some female interviewees stated that while they were walking through the countryside to engage in their regular trading activities, they would come across sites near the footpaths in the rural, mountainous areas (up to 10-20 kilometres away from the city) where recent mass burials appeared to have taken place.³⁴ These assumptions were fed by the interviewees having heard reports from local people who had witnessed burials taking place, following public executions that had occurred on the same day. Three interviewees who had worked for the State Security Office, the police and another who had been detained in the cell of a provincial police station, respectively, shared significant information about burial sites as a result of these experiences.

For the maps on the following pages that show specific points identified by interviewees, but which have no underlying satellite imagery (Maps 2, 3, 5), we have removed information before publication that might be

^{34.} Private trading in marketplaces has grown in North Korea over the past two decades following the collapse of the public distribution system and the subsequent famine. Women tend to run such enterprises as unlike men, they are less often required to attend state employment, even though state jobs provide little to no adequate salary. This informal economy has become a means of survival for many North Korean people. Jihae Lee and George Swartz, "'Jangmadang Generation' at the Core of Change in NK," 2015, Daily NK, http://www.dailynk.com/english/read. php?num=13323&catald=nk02501.

used to identify the locations indicated. However, the original spatial relationships and distances between the coordinates have been preserved.

Map 1 (Suspected Body Site Groupings by Province) visually depicts the relationship between the number of interviewees per province in North Korea (see Chart 5) and the number of body site groupings³⁵ reported in each province. At this stage in the research, the map suggests an emerging proportional relationship between the number of interviewees in each province and the number of body site groupings reported. For the time being, most of the 47 site groupings consist of one site only. However, there are four groupings that consist of more than one site. Of these, one of them consists of two sites identified by the same interviewee, two consist of two sites identified by two different interviewees (see Map 2 for one of them), and one grouping consists of three sites identified by three different interviewees (see Map 3). The number of groupings with multiple sites is expected to increase as we conduct further interviews, thus strengthening our confidence in those sites.

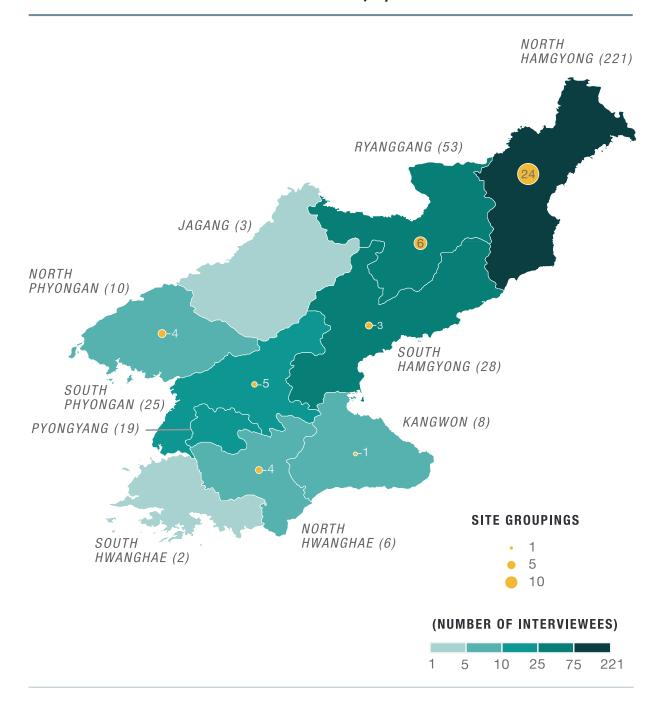
Map 2 (Suspected Burial Site Grouping Near Killing Sites) depicts the features of an area that interviewees identified as containing both suspected killing sites and suspected burial sites. It must be noted that the killing sites shown are **pre-consolidation**, as described above.³⁶ The polygon and the point were identified by two separate interviewees, with both of those interviewees making mention of bodies being buried in or near a mine.

Map 3 (Suspected Cremation Site Grouping) shows a grouping of three points within a short distance of each other, identified by different interviewees, of possible locations of a suspected cremation site near a correctional facility.

^{35.} Refer to the definition in Table 4.

^{36.} Refer to the definition in Table 4.

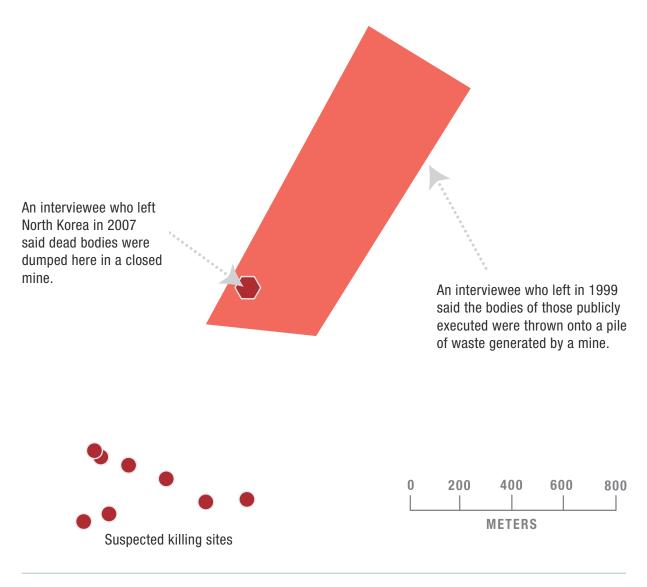
Map 1: Suspected Body Site Groupings by Province
Where did interviewees live — and what did they report?



Province borders generated using GADM 2.8 data from Global Administrative Areas (http://www.gadm.org/), but modified to conform with the 10 top-level administrative areas (nine provinces and the city of Pyongyang) and their spellings used by North Korea (DPR Korea 2008 Population Census: National Report, Central Bureau of Statistics, Pyongyang, DPR Korea, 2009, https://unstats.un.org/unsd/demographic/sources/census/wphc/North_Korea/Final%20national%20census%20report.pdf).

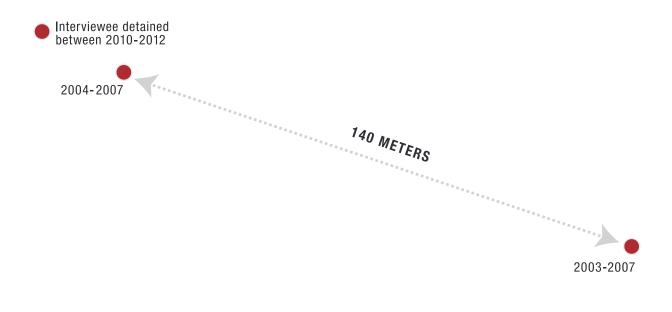
Map 2: Suspected Burial Site Grouping Near Killing Sites

The polygon and the point within it were given as the locations of burial sites by two different interviewees. During site analysis we consolidated them into a suspected burial site grouping. Within four kilometers of this grouping there are over four dozen suspected killing sites, the closest of which are seen clustered below the polygon. The interviewee likely did not mean that the whole area depicted by the polygon is used as a burial site, but that the burial site is located somewhere within this area.



Map 3: Suspected Cremation Site Grouping

This grouping consists of three possible locations of a site used for cremation near a correctional prison (교화소). Each location was identified by a different interviewee who had been detained in the prison, and all three said they had heard that detainees who died in the prison were taken to a site nearby and their bodies were incinerated. The third interviewee said he/she frequently saw the site (dead bodies are often moved by prisoners). The third interviewee also identified a location within the prison where dead bodies were stored before being moved to the site to be burned (not shown).



Killing Sites

The killing sites our research focuses on are most often public execution sites. The execution of citizens in North Korea is considered a violation of human rights for several reasons. The International Covenant on Civil and Political Rights (ICCPR) states in article 6, paragraph 2, that in countries which have not abolished the death penalty, a sentence of death may be imposed only for the most serious crimes in accordance with the law in force at the time of the commission of the crime.³⁷ However, the UN Human Rights Committee explained in its General Comment on the right to life that the expression "most serious crimes" must be read restrictively to mean that the death penalty should be an exceptional measure (usually limited to premeditated murder or attempted murder, and deliberate infliction of serious injury).

The North Korean constitution, adopted in 1972 and revised most recently in 2012, does not guarantee the right to life, nor does it restrict the use of the death penalty. In February 1987 the government revised its Criminal Code, reducing the number of crimes punishable by death from 33 to 5. However, according to the International Federation for Human Rights (FIDH), "four of these are essentially political offences couched in terms so broad that the imposition of the death penalty may be subjective and arbitrary." However, FIDH states that since that time, a series of revisions and addendums to the law have expanded the list of crimes punishable by death to 24 as of 2012:

Of these, at least 9 have a mandatory death sentence requirement... Such legislation that leaves courts with no choice but to impose death sentences for specific crimes violates various human rights standards: 'A mandatory death sentence, even where killing was intentional, necessarily fails to take into account mitigating circumstances that might otherwise show the specific crime to be less serious.' Furthermore, the addendum, by containing a number of vague expressions, leaves room for arbitrary decisions by authorities. 40

^{37.} North Korea acceded to the International Covenant on Civil and Political Rights (ICCPR) in 1981 without reservation, but sent notification of its withdrawal from the ICCPR to the UN Secretary General in August 1997. However, as the Covenant does not contain a withdrawal provision, the Secretariat of the United Nations stated that a withdrawal from the Covenant would not appear possible unless all States Parties to the Covenant agreed. UN General Assembly, International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171, available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-4&chapter=4&clang=_en#8. North Korea has been a State Party to the Convention on the Prevention and Punishment of the Crime of Genocide since 1989. In 1984, North Korea acceded to the Convention on the Non-Applicability of Statutory Limitations to War Crimes and Crimes Against Humanity.

^{38. &}quot;The Death Penalty in North Korea: In the Machinery of a Totalitarian State" (International Federation for Human Rights, 2013), 18.

^{39.} "Extrajudicial, Summary or Arbitrary Executions, Note by the Secretary General" (Office of the High Commissioner for Human Rights, August 9, 2012), para. 61, http://www.ohchr.org/EN/HRBodies/SP/Pages/GA67session.aspx.

^{40. &}quot;The Death Penalty in North Korea: In the Machinery of a Totalitarian State," 19.

Moreover, article 7 of the ICCPR states that execution of the death penalty in public could constitute cruel, inhumane or degrading punishment. If the execution is also an extrajudicial, summary or arbitrary execution carried out in public, it would break both article 6 and 7 of the ICCPR. From the perspective of those who may have been forced to witness the execution, such as family members of the executed (as testimonies state is often the case), this act may also constitute cruel, inhumane or degrading treatment upon those witnesses, in violation of article 7.⁴¹

The Korea Institute for National Unification (KINU) has published a broad list of crimes to which North Korean criminal law seeks to apply the death penalty, based on the North Korean Criminal Code and its research with North Korean defectors, including treason, smuggling of narcotics, "serious escape by a prisoner", "extremely serious gangster-like behaviour", "damaging of state property", and "operation of an unlawful business". Testimonies collected by KINU have also stated the inclusion of watching/distributing South Korean media as a crime to which the death penalty has been applied, although it is not clear whether execution has occurred for this as a stand-alone crime or in combination with other charges. However, testimonies collected as part of our research stated that executions have taken place for the singular charge of watching or distributing South Korean media.

As has been documented elsewhere, our interviewee data indicated that public executions were at their highest levels from 1994 to 2000, which roughly corresponds with the North Korean famine, or Arduous March, and that it has been a common practice in North Korea to require that local citizens assemble to watch executions as a deterrence tactic.⁴⁴

In **political prison camps** (*gwalliso*) and correctional prisons (*gyohwaso*) executions are reportedly used as a means of inciting fear and intimidation among potential escapees among the inmates about the consequences of trying to flee. In the *gwalliso*, executions were described by interviewees as taking two forms: either informal – meaning they are undertaken in secret away from the view of other inmates; or formal – where other inmates are required to watch the proceedings.

^{41. &}quot;2016 White Paper on Human Rights in North Korea" (Seoul: Korea Institute for National Unification, July 2016), 81.

^{42.} Ibid., 65.

^{43.} Ibid., 69-71.

^{44.} Asher-Schapiro, Avi. 2017. "North Korea Has Publicly Executed 1,382 People Since 2000, Report Claims." VICE News. https://news.vice.com/article/north-korea-has-publicly-executed-1382-people-since-2000-report-claims.

In **ordinary areas outside the prison system**, our interviewees stated that public executions take place near river banks, in river beds, near bridges, in public sports stadiums, in the local marketplace, on school grounds in the fringes of the city, or on mountainsides. The major charges for such killings as reported by the interviewees included: stealing, transporting and selling copper components from factory machinery and electric cables; stealing livestock (especially cows, which are national property); stealing farm produce such as corn and rice; murder and manslaughter; human trafficking (including brokered defection and selling women for marriage in China); distributing South Korean media; organised prostitution; sexual assault; ⁴⁵ drug smuggling ⁴⁶; and gang fighting. Many interviewees said that the final decision for a public execution was often influenced by individuals having a 'bad' family background in addition to the crime they were alleged to have committed. ⁴⁷ In addition, interviewees said that executions often occur upon the issuing of a new decree from the central government, as a means of establishing a new precedent by creating an atmosphere of fear around certain behaviours the government wishes to emphasise as unacceptable.

In the case of **executions carried out against officials**, the charges were described as including embezzlement, espionage, and procuring funds and/or goods for personal gain/enjoyment (luxury goods). When executions of officials take place, officials from other provinces and counties of similar rank can be summoned to watch the executions as a deterrence tactic. Three interviewees gave testimony of witnessing 10-15 individuals being executed at one time, in North Hamgyong, North Hwanghae and Ryanggang provinces. Executions in Ryanggang and North Hwanghae were said to have been carried out by the Defense Security Command (*bowi saryeongbu*/보위사령부 or *bowiguk*/보위국).

According to some of our participants, prior to the North Korean famine, execution could occur by hanging administered at the county level and the city level, specifically in the public marketplace. But after 2004, public hangings are reported to have ceased or at least decreased in frequency, with some attributing this shift to

^{45.} The UN COI report presented evidence of sexual assault by officials and soldiers as being commonly treated with impunity, hence the application of punishment for this crime may be applied selectively. "Report of the Detailed Findings of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea," paras. 318-19.

^{46.} Opiates and methamphetamines have long been produced in North Korea for domestic consumption and illegal export. Younghwan Lee, "Child Is King of the Country: NKHR Situation Report on the Rights of the Child in North Korea" (Seoul: Life and Human Rights Books, January 2009), 117-32.

^{47.} Since the late 1950s, the North Korean regime has sought to maintain social control over its population via the *songbun*/성분 caste system, which subdivides the population into 56 categories of trustworthiness and loyalty to the Kim family and the state, under three broad castes: the core, wavering and hostile classes. Separately, 25 songbun are also used for classification purposes. "2016 White Paper on Human Rights in North Korea," 238-41. See also Robert Collins, "Marked for Life: Songbun, North Korea's Social Classification System" (The Committee for Human Rights in North Korea, 2012), 7, https://www.hrnk.org/uploads/pdfs/HRNK_Songbun_Web.pdf.

international pressure to end the practice.⁴⁸ Of the 30 hangings for which interviewees gave a time and location for the event, only one occurred after 2004 (in 2012). The most common method of killings since that time has been by shooting. However, we received testimony of a person being beaten to death by police at a city-level police station (*shi anjeonbu*/시 안전부) as a means of execution, with the interviewee stating that "some crimes were considered not worth wasting bullets on." The interviewee stated that such beatings leading to death took place at this location frequently between 2005 and 2010, and this information was confirmed to the interviewee by the relatives of police officers who worked at this location.

One former official stated that public officials charged with espionage were often executed secretly by being beaten to death during *yeshim*/예심 – a North Korean term to describe the preliminary examination period that comes after an investigation, and which precedes prosecution and trial in the North Korean judicial system. Research on North Korean criminal procedure states that this preliminary examination period, often undertaken by the Ministry of State Security (*gukga bowiseong*), and without oversight from the courts, is often a period of interrogation, torture, prolonged detention and forced confession, which does not reflect due legal process.⁴⁹ In such cases, it was reported that the person to be executed can be forced to dig their own burial pit in a discreet location, before being beaten to death and buried. Once again, these reports match with other recent research on the application of the death penalty and other types of killings by the authorities in North Korea.

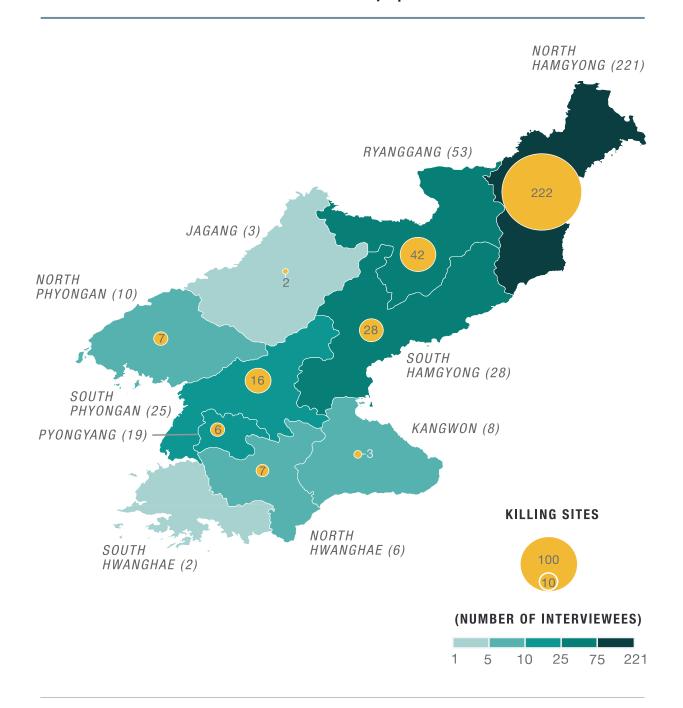
Map 4 (Suspected Killing Sites by Province) visually depicts the relationship between the two sets of data recorded above in Chart 5 and Table 3, respectively: 1. The total number of interviewees from each North Korean province; 2. The total number of times killing sites were identified by interviewees (pre-consolidation figures – see description for Table 3). At this stage in the research, the map indicates a proportional relationship between the number of interviewees and the total number of sites identified in each province.

Map 5 (Cluster of Suspected Killing Sites Near Waterway) indicates the features of a cluster of suspected killing sites near a waterway. Once again, these points have not been consolidated – this is an area of future work. The fact that the time period labels do not all conform to one format shows how the data we collect do not always fit cleanly into categories.

^{48.} "Pressure on the North Korean Human Rights Problem Is Effective." Daily NK, January 26, 2005, http://www.dailynk.com/english/read.php?catald=nk02100& num=13.

^{49.} Tae-Ung Baik, "Nonjudicial Punishments of Political Offenses in North Korea—With a Focus on Kwanriso," The American Journal of Comparative Law 64, no. 4 (December 1, 2016): 891–930.

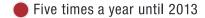
Map 4: Suspected Killing Sites by Province
Where did interviewees live — and what did they report?



Province borders generated using GADM 2.8 data from Global Administrative Areas (http://www.gadm.org/), but modified to conform with the 10 top-level administrative areas (nine provinces and the city of Pyongyang) and their spellings used by North Korea (DPR Korea 2008 Population Census: National Report, Central Bureau of Statistics, Pyongyang, DPR Korea, 2009, https://unstats.un.org/unsd/demographic/sources/census/wphc/North_Korea/Final%20national%20census%20report.pdf).

Map 5: Cluster of Suspected Killing Sites Near Waterway

Fifteen different interviewees identified 15 suspected public execution sites, which were within a few hundred meters of each other. There are around three dozen additional suspected killing sites within two kilometers of this area (not shown). The date ranges are approximations given by the interviewees for when the incident they witnessed or heard about happened.





Base map data from OpenStreetMap via Geofabrik (http://download.geofabrik.de/asia/north-korea.html).

Possible Repositories of Documentary Evidence

The Mapping Project also collects data on the location of possible repositories of documents which may contain evidence of human rights abuses. These may prove important for future legal proceedings and creating an historical account in North Korea that is an accurate record of events over the regime's lifespan. These locations include local police offices, intelligence offices, military units and administrative offices. Record-keeping is systematic within North Korea, particularly because of the <code>songbun/성물</code> caste system, which designates all individuals as members of either the core, wavering or hostile class. The behaviour of individuals is linked to that of family members in public records, with political crimes in particular having implications for family members according to 'guilt by association' practices dating back to the pre-liberation period. This necessitates keeping a log of the political behaviour of all members of society, which includes records of deaths – natural or otherwise. People who may have been executed for 'political crimes' or for other reasons that might be interpreted as being in violation of their human rights, will have had their deaths recorded to ensure that other individuals who were associated with those people might also be monitored. The consequence of this rigorous monitoring system is the likely possibility that detailed records of unjust killings exist in North Korean institutions, at multiple levels of authority.

The value of administrative documents has been proven in other settings where accountability has been sought for systematic human rights abuses, including Guatemala. Here seemingly benign documents including police promotion records were used to bring charges against police officers accused of involvement in the disappearance of a student union leader, despite an absence of written orders of the incident itself. This then led to the successful prosecution of the former national police chief in 2013. Records either directly or indirectly incriminating perpetrators of human rights abuses will be an integral part of future accountability-seeking processes.⁵⁰

Some sites possibly containing documentary evidence are well known to local citizens and are relatively easy to identify on the maps shown to interviewees. The operations of these offices are described as being organised and structured according to well-established procedures. We have not yet ascertained the exact type and volume of documentation that is stored in these facilities, or in what form they exist. However, handwritten documents provided by the North Korean government to the families of Japanese citizens abducted to the North as evidence of the deaths of these individuals have emerged in recent years, including death certificates and medical forms. These give some indication as to the nature of the documents that may exist,

^{50.} "Solving for X: How Numbers Matter in the Fight for Human Rights," https://vimeo.com/52305779; Kate Doyle, "Guatemalan Court Convicts National Police Chief," The National Security Archive, September 24, 2013, http://nsarchive.gwu.edu/NSAEBB/NSAEBB440/.

although their authenticity has been questioned by the Japanese government.⁵¹ One interview participant, who was a former inmate at a political prison camp (*gwalliso*) reported having seen a list of over a hundred inmates who had been executed in secret (i.e., not in the public execution area of the camp) over the course of a year. The participant stated that during their time in the camp, the largest number of secret (non-public) killings took place in 1999. The participant stated that they had been required to clear the killing site of spent bullet casings. The participant had a level of familiarity with the officers, which led to this person being able to see this list and learn about the number who had been killed and their rank. The participant stated that at least two agencies had held this information: the state security agency and the local police office operating within the camp.⁵²

Document-keeping of this nature is systematic throughout the North Korean system, as was the case in other authoritarian regimes such as the German Democratic Republic (East Germany), where Stasi records played an important part in trials and truth seeking efforts post-transition. We aim to record the locations of these sites for future safeguarding of documents. The above witness testimony regarding the clearing of bullet casings from a site also suggests that the North Korean authorities may go to considerable lengths to remove physical evidence of such killings, whether for benign procedural reasons or otherwise, making documents all the more important to seize before they are lost or destroyed during a transition. We hope to assess the regime's sensitivity to clearing evidence of killings as our interview research progresses.

Map 6 shows Hyesan City, Ranggang Province, on the border with China. The map contains selected sites which may contain important documentary evidence: security offices, police stations, detention facilities and military facilities at various levels of administration (city, province, etc.). To the north (left) of the Amnok River is China, to the south (right) is North Korea. Each site shown was identified by at least two different interviewees.

^{51.} "Abductions of Japanese Citizens by North Korea", Headquarters for the Abduction Issue, Government of Japan, http://www.rachi.go.jp/en/mondaiten/index.html.

^{52.} Verifying accounts such as this from a single individual is extremely difficult and this should be taken into consideration when assessing such claims.

Map 6: Hyesan City – Suspected Sites with Documentary Evidence



IMAGERY VIA GOOGLE EARTH Image © 2017 CNES / Airbus

North Korean Defector Participation in Research

"Consultations are an effective way to allow victims and affected communities to share their priorities for achieving accountability, and to ensure ownership, legitimacy and effectiveness of the mechanisms that are subsequently established." 53

Alongside the Mapping Project, TJWG has undertaken a survey of defector opinions regarding transitional justice, inquiring into key themes including accountability, truth-seeking, reparations and opinions on the future of the Korean Peninsula. In line with the recommendation of the UN Group of Experts to ensure that the "most affected" develop a "sound understanding of the rights and their status as rights holders" ⁵⁴, we have engaged the North Korean defector community from the outset with this initial survey, which serves a dual purpose of information-gathering and awareness-raising, at what is a very early stage in exploring the potential application of transitional justice to the Peninsula. Without access to those living inside North Korea at this time, those who have escaped and settled in South Korea offer an opportunity to gain initial insight into crucial areas of understanding how to plan for the future. ⁵⁵ The full findings of this survey after a year of gathering responses are due to be presented in a separate, forthcoming report. However, several sets of findings are pertinent to the Mapping Project in terms of both its rationale, and the future use of its findings. ⁵⁶

First, we inquired into the participants' personal experience of violence while living in North Korea. This is important as it may serve as a basis for interpreting 'victimhood' in the future. The concept of victimhood occupies a vast, cross-disciplinary field of research and practice, and holds particular, context-specific significance in the application of transitional justice.⁵⁷ There is a great deal of careful investigation and

^{53. &}quot;Report of the group of independent experts on accountability," para. 20.

^{54.} Ibid., para. 26.

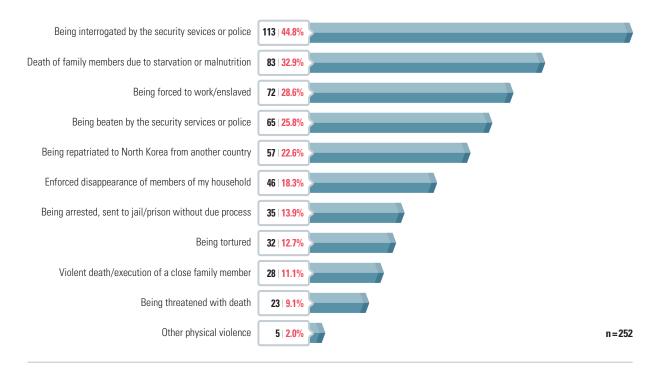
^{55.} The UN group of independent experts states: "In the context of the Democratic People's Republic of Korea, steps may be initiated despite the lack of opportunity to engage with or among individuals within the country, including with persons who have left the country." Ibid., para. 26.

^{56.} This paper survey was undertaken by participants in the TJWG office, immediately prior to taking part in an interview to gather data for the Mapping Project. Separate informed consent was obtained for the survey. It should be noted that the sample for this survey was not randomly selected, as we used a snowball sampling method to gather participants for the Mapping Project research. This precludes us from applying accurate tests for statistical significance of variables, due to potential bias.

consultation that lies ahead in determining what the concepts of 'victim', 'perpetrator' and 'witness' confer upon those constituencies in North Korea, and where the lines may be blurred between them. The acquisition and inevitable politicisation of a 'victim identity' by individuals and groups that have experienced harm determines closely the motivations for, and modes of participation in a transitional justice process, as well as the types of reparatory and/or restorative measures that may be explored, including accountability measures. Although beyond the scope of this report, a further area of concern for our future research is the ethical, moral and practical questions associated with 'speaking for others', also considered in a burgeoning area of scholarship in the field of transitional justice. While being aware of the necessity of sustained and careful consideration of what victimhood may look like in the Korean context, we are beginning with basic inquiry into experience of violence.

Chart 6: Experience of Violence While in North Korea

In which of the following have you experienced physical violence in North Korea? (Multiple choice)



^{57.} Kieran McEvoy and Kirsten McConnachie, "Victimology in Transitional Justice: Victimhood, Innocence and Hierarchy," European Journal of Criminology 9, no. 5 (September 1, 2012): 527–38; Kieran McEvoy and Kirsten McConnachie, "Victims and Transitional Justice: Voice, Agency and Blame," Social and Legal Studies 22, no. 4 (2013): 489–513.

^{58.} Tshepo Madlingozi, "On Transitional Justice Entrepreneurs and the Production of Victims," Journal of Human Rights Practice 2, no. 2 (2010): 208-28

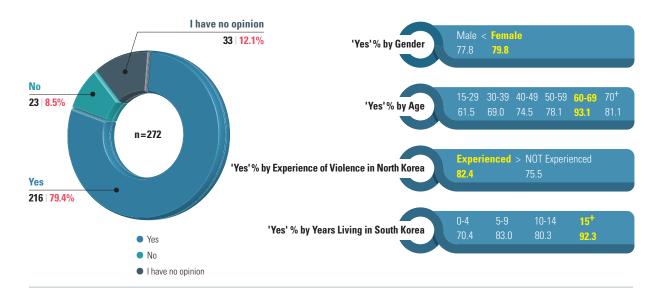
Only 21% of respondents to the question stated that they had not been exposed to violence while living in the North.⁵⁹ Around 23% of respondents to the question had been repatriated to North Korea after a defection attempt.⁶⁰ How representative the degree of violent experience is of the North Korean population as a whole is unknown and there is no way to measure this until access to the North Korean population is established. Nevertheless, the sample group surveyed for this research contains a large number of individuals who might be considered 'victims' of human rights abuses at the hands of the North Korean regime.

Exhumations of burial sites

Part of the survey inquired about the perceived necessity among North Korean defectors of exhumations of burial sites containing the bodies of those who have been victims of human rights violations. As the chart below shows, 79.41% of the 272 respondents stated that they see exhumations as necessary.

Chart 7: Necessity of Exhumation of Burial Sites Containing Victims of Human Rights Abuses

Is exhumation of burial sites containing victims of human rights abuses necessary after transition?



^{59.} 53 out of 252 – 20 Mapping Project participants did not complete the opinion survey.

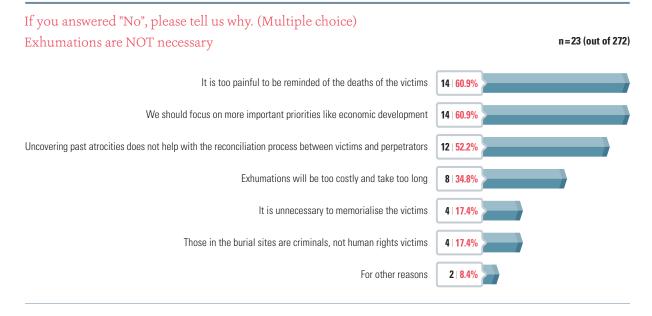
^{60.} 57 out of 252. The 1986 Border Area Affairs Agreement and the 1960 Escaped Criminals Reciprocal Extradition Treaty between North Korea and China allow repatriation of North Koreans in China. "Perilous Journeys," 2. It should be noted that individuals who were repatriated may have crossed the border into China to engage in private trading with the intention of returning, but were caught before being able to do so of their own free will.

While there was no notable difference in the responses across gender, there was a clear increase in preference for exhumations among older participants, as shown above. Furthermore there was a stronger preference for exhumations among those who had lived in South Korea for over a decade, as compared to those who are more recent arrivals. Those who had personal experience of violence also showed a somewhat stronger preference for exhumations than those who had no experience of such violence.

Chart 8: Reasons Why Exhumations of Burial Sites Containing Victims of Human Rights Abuses are Necessary



Chart 9: Reasons Why Exhumations of Burial Sites Containing Victims of Human Rights Abuses are Unnecessary

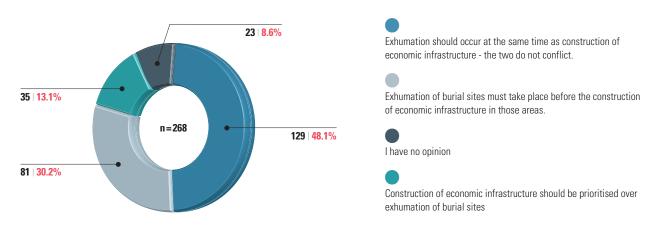


When participants were asked why they thought burial sites should be exhumed, the responses showed support for transitional justice mechanisms dealing with accountability, truth-seeking and assisting with the recovery of victims' families. Relatively few participants saw exhumations as unnecessary, but those who did stated that exhumations would be "too painful" or are not as important a priority as economic development.

Based on lessons from the experiences of other countries who have dealt with burial sites containing human rights abuse victims, the survey also sought to gain opinion on the prioritisation of exhumations, relative to the construction of economic infrastructure that may also be taking place during a transition in North Korea. As the chart below shows, close to 80% of the participants stated that exhumations should take place either at the same time, or before economic infrastructure development. Combined with the previous responses, these findings provide firm support for the Mapping Project, both in terms of its overall value, and the importance of starting preparatory work ahead of a transition, in order to facilitate swift implementation of exhumation activities when the political conditions allow.

Chart 10: How Leaders Should Prioritise Their Efforts After a Transition in North Korea Regarding Burial Sites





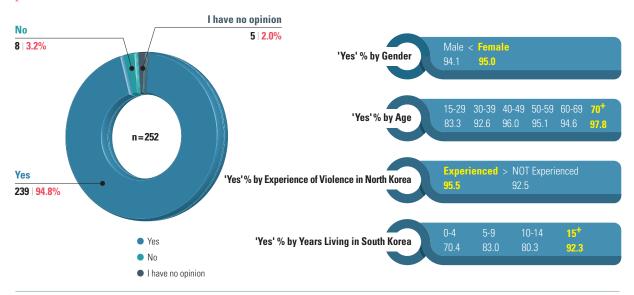
Accountability

TJWG's survey is one of the first to address directly the question of accountability in relation to North Korean perpetrators of human rights abuses, from the perspective of North Korean defectors. 'Accountability' in transitional justice is a concept often associated with legal remedies applied to situations where atrocities have taken place. However, the question of whether judicial measures alone have the capacity to redress systematic or massive violations of human rights is a crucial one, and transitional justice operates on the conviction that

they do not. The UN Backgrounder on transitional justice states that to be effective, the process should be holistic: "it should be made up of several initiatives that complement and reinforce each other." ⁶¹ The design of a potential transitional justice process which includes accountability measures in the North Korean context must be accompanied by sustained engagement with the affected communities, and the efficacy of different accountability mechanisms should be properly assessed. However, at this early stage in our work, we sought to draw attention to the main types of accountability mechanisms most often tried elsewhere. Chart 11 below indicates strong support for legal proceedings against perpetrators.

Chart 11: Should Perpetrators of Human Rights Abuses Receive Prosecution and Punishment in Court

Is it important for perpetrators of human rights abuses to receive prosecution and punishment in court?

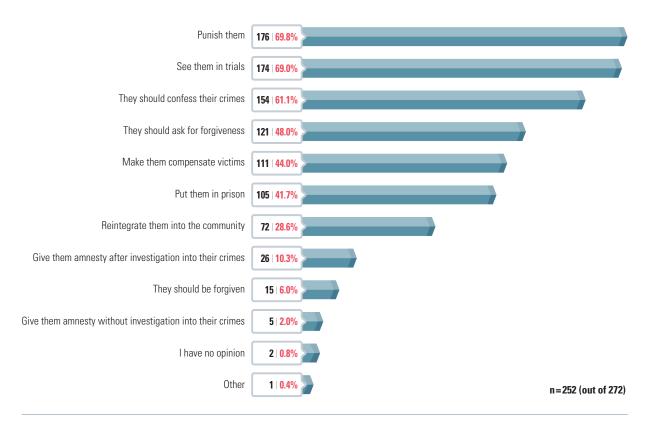


There was little difference in the strength of preference for accountability measures across the variables of gender, personal experience of violence in North Korea and length of time spent in South Korea, with participants in all categories showing a strong preference for accountability for perpetrators of human rights abuses. There was, however, a slight increase in favourability with age, where the percentage of participants in the 70+ age group who stated that accountability measures should be pursued was 14% higher than in the 15-29 age group.

^{61.} United Nations, "What Is Transitional Justice?: A Backgrounder" (United Nations, February 20, 2008), http://www.un.org/en/peacebuilding/pdf/doc_wgll/justice_times_transition/26_02_2008_background_note.pdf.

Chart 12: Participant Views on the Fate of Those Who Committed Violent Human Rights Abuses in North Korea

What would you like to see happen to those who committed violent human rights abuses in North Korea? (Multiple choice)



When asked what participants would like to see happen to those who committed violent human rights abuses in North Korea, punitive measures featured highly, with the restorative measures of confessing crimes and asking for forgiveness also seen as important. Amnesties were a less popular option. The large volume of potential perpetrators in the North Korean system means that it may well be practically impossible to bring formal charges against every individual suspected of carrying responsibility for human rights crimes, not to mention the problems that may arise in attempts to charge those who are both victims and perpetrators of the regime's abuses. The data gathered by the Mapping Project will make an important contribution to determining the nature of the crimes concerned, and in building cases against known perpetrators. While amnesties may have a place in the future, punitive measures are deemed important by the respondents and this should be taken into consideration in any transitional justice process.

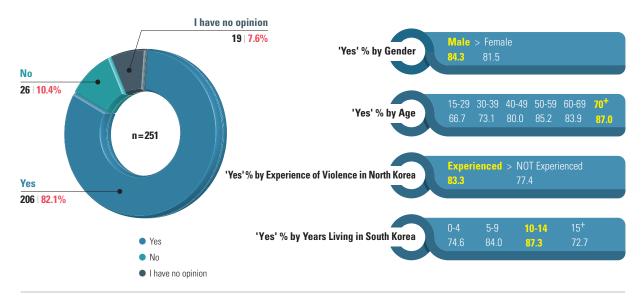
Reparations

The final section of the survey pertinent to the Mapping Project concerns North Korean defector opinions on

the necessity of victims receiving financial reparations for the abuses they have suffered. Here 82% of participants stated that reparations are important. Again, helping to identify those who may be owed reparations may be directly supported by the Mapping Project.

Chart 13: Necessity of Victims Receiving Financial Reparations

Is it important for victims of human rights abuses to receive financial reparations for their losses and suffering?



Positive attitudes toward providing reparations to victims of human rights abuses were higher among older participants, and also slightly higher among those who had personal experience of violence in North Korea.

While the above views of the defector community in South Korea are likely to be different to those of the general population in North Korea, the information gathered from this group is a useful starting point in understanding the potential future direction of measures to recover from the abuses of the past. It is intended that this survey form the basis of sustained engagement with the North Korean defector community, beyond a role as simply providers of information, as we look to activities that facilitate their active participation in the design and planning of future transitional justice measures.

Interim Conclusions and Policy Implications

TJWG's Mapping Project has so far identified a number of suspected body sites, killing sites and locations of important evidentiary information. Through our networks we have been made aware of a number of other sites believed to be mass burial sites but for which we have yet to locate informants. Such information will be targeted in our next phase of research. The use of defector testimonies has proven effective, and the system we have built has enabled cross-referencing of the data. Our interactions with other NGOs and experienced transitional justice practitioners in other countries has confirmed the importance of these efforts.

While we are developing a system that will enable us to analyse and visualise maps of our data, we will not be able to release publicly the locations of sensitive sites, as this will incur the risk that the sites may be tampered with by the North Korean regime. Rather, our strategy involves sharing information and selected data with certain agencies and organisations, such as the UN and other authorised investigative bodies, where deemed necessary for advocacy, research or legal investigation. For publicity purposes, we will be sharing map images which indicate the nature of our work and to some extent the volume of our findings, without jeopardising the sites.

Our first two years of interviews were not without both technical and methodological challenges. As TJWG is pioneering this methodology in the North Korean human rights arena, while also having no access to the country directly, we have reviewed and made alterations to our data collection from time to time. The challenges of working with the North Korean defector community were also significant at times. Aside from having to rely on memories affected by trauma and suffering, it is difficult to obtain specific details such as dates of burials, names of individuals involved in burials or killings, and exact numbers and identifying details of the dead. However, we are also aware that our sample is relatively small at this early stage, and we anticipate that as our research advances, the quality of the data will increase. In addition, as a relatively new organisation, our activities are not as widely known as those of organisations that have been established for a longer time. We expect that as word spreads regarding the nature of the data we are collecting, we will attract the participation of more individuals with specific information to share.

The policy relevance of the research contained in this report is evident in the pioneering nature of the work we are engaged in: constructing a mapping system and visualising location data, alongside novel inquiry into North Korean defector opinions on key issues. Our survey data has already been used in submissions to the

UN group of independent experts on accountability, and we continue to work closely with the UN Human Rights Office in Seoul, supporting their initiatives and sharing information. We are also engaged in collaborative activities with the Citizens' Alliance for North Korean Human Rights (NKHR) to support advocacy aimed at relevant governments, as well as UN organs, while also working with NKHR on the creation of a civil society Central Repository for missing persons data to profile and make cases.

Regarding South Korea's policy framework on North Korea, TJWG receives requests for information on methodology and research cooperation from government bodies. Our staff make regular contributions to local and international conferences, seminars and symposiums related to North Korea and human rights, sharing research findings and educating participants about the application of transitional justice to the Korean Peninsula. In addition, our work with the North Korean defector community seeks to respond to the common critique of this group as 'passive' providers of information, as we begin to look at ways and means of ensuring their active engagement in the design and application of methods and means of redress for decades of victimisation as 'rights holders'.

Alongside the collection and visualisation of the data, we are keen to source expertise in forensic analysis of sites such as those discussed here, as well as improved, more detailed base maps of North Korea. We have made inroads into identifying researchers with expertise in remote sensing, as well as mapping and exhumation procedures. Our work has also attracted the attention of a number of organisations and individuals with considerable technical, legal and historical experience working in or on post-conflict and post-authoritarian regimes, adding several organisations working directly on mapping mass grave sites to our network. In July 2017, we will bring qualified experts in both the fields of forensic analysis and its legal application in international criminal proceedings to South Korea. These experts will introduce to the North Korean human rights documentation community the advances and methods which may be available when access to North Korea is possible, enabling swift investigation of key sites. This will assist in designing a blueprint for processing the sites, and the resources that will be required for the efficient delivery of justice, reparations and memorialisation measures.

Future Plans for Documentation and Advocacy

The following is a list of the areas in which we hope to expand our programme of activities:

Cross-checking with supplementary materials (via other organisations and media reports): We hope to make use of data from reports originating from inside North Korea and reports of possible burial sites and other sites of interest recorded by other entities to contribute to our sources of data.

Targeting specific interviewees based on supplementary research: We also hope to launch searches for participants originating from key locations or institutions who we believe may have information on specific sites with a high probability of containing mass burials. By targeting specific areas where clusters of points appear, we hope to enhance the reliability of the maps.

Further engagement with other NGOs: We intend to foster cooperation with NGOs in South Korea, building on our existing record of collaborative activities with other human rights documentation and advocacy groups locally and internationally. We are also looking to make practical use of our network outside South Korea. Plans are in place in this direction, in the form of an international conference to be held in 2017, titled "Amassing Evidence: Applying Information Technology and Forensic Science in Human Rights Documentation".

Exploration of innovative technologies: Although access to North Korea to investigate these sites is impossible at present, remote sensing (RS) technology designed to detect geographic patterns associated with mass graves has advanced markedly in recent years and is being applied in the work of organisations and projects including the International Commission on Missing Persons, the "Body Farm" (University of Tennessee) and Forensic Architecture (Goldsmiths College, University of London).⁶² RS technology applications aimed at identifying mass grave sites is based on the premise that those responsible for killings and subsequent burials tend to follow patterns for choosing grave sites. This allows researchers to develop

^{62.} "ICMP Finds Improved Methods for Locating Mass Graves," https://www.icmp.int/press-releases/icmp-finds-improved-methods-for-locating-mass-graves/; http://fac.utk.edu/; http://www.forensic-architecture.org/.

context-specific criteria that are then used for the purposes of potential site analysis.⁶³ For example, in the mid-2000s, collaboration between satellite imagery experts, geology experts and forensic archaeologists in Bosnia enabled a team to draw key characteristics and patterns around mass graves sites, with insights which may be applied in other settings, such as North Korea, where remote detection may be particularly useful.⁶⁴ More recently, the Body Farm project at the University of Tennessee led by Prof. Amy Mundorff has applied Light Detection and Ranging technology (LiDAR) to uncover clandestine burial sites.⁶⁵ Such non-invasive methodologies are potentially useful in locating sites from satellite imagery and other remote sensing means, and also for testing sites discreetly in order to avoid detection that may result in attempts to cover up evidence of mass killings. The application of these technological developments to the locations recorded by TJWG is a potential future direction of the Mapping Project.

Ongoing research contribution to transitional justice preparedness: As documented in recent preliminary research on the Korean context, 66 until recently, discussions on North Korea's future have revolved almost exclusively around regime collapse scenarios, the subsequent regional order and how the military, diplomatic, economic and security strategies for South Korea, the United States and other regional neighbours should be constructed. Moreover, the dominant focus in future scenario-building has been on inter-Korean unification. While it is important to acknowledge that unification may be the setting in which a transitional justice process is implemented, a range of possibilities exists in which change in both North and South Korea may occur, whether together or as separate political entities.

Due to the many challenges present in seeking justice for the crimes believed to have been committed in North Korea, it is crucial that a holistic policy of transitional justice be adopted when the conditions permit. This will depend on the creation of diverse and complementary mechanisms, both judicial and non-judicial. It will require a strategy based on knowing the violations, the time-frame in which they occurred, and the main categories into which the victims fall. The research we are undertaking, combined with the complementary work of other organisations both in Korea and elsewhere, may help to form the basis of a

^{63.} James Walker, "Remote Sensing and Mass Graves Detection 101," Lemming Cliff, February 27, 2017, https://medium.com/lemming-cliff/remote-sensing-and-mass-graves-detection-101-cff939ad9d82.

^{64.} In Bosnia, such characteristics included a tendency for sites to be located in river valleys; in the corner of meadows or agricultural fields; within 100 meters of a road; on a low slope from the road to the site; and colonised by dense weeds and grasses. Soil tests were also found to reveal "striking patterns, enabling researchers to pinpoint the exact locations of mass graves." "ICMP Finds Improved Methods for Locating Mass Graves."

^{65. &}quot;Welcome to the Body Farm," Mental Floss, May 14, 2014, http://mentalfloss.com/article/56640/welcome-body-farm.

^{66.} Baek, Collins, and Kim, "Transitional Justice in Post-Unification Korea: Challenges and Prospects."

^{67.} Ibid., 11.

process of reflection for a new government, as well as its international partners. This strategy must involve complementarity between various mechanisms, each serving a specific function in truth-seeking, justice, reparation and rehabilitation of victims, in building of judicial and security institutions and in reconciliation. Most of the many countries that have looked to a past marked by dictatorship, armed conflict and large-scale serious crime have used multiple transitional justice measures, implemented simultaneously or gradually to restore rights and dignity to victims, to ensure that human rights violations are not repeated, to consolidate democracy and sustainable peace and to lay the foundations for national reconciliation.

This report is a small snapshot of the scale of the project we hope to reach in the coming years, as more witness testimonies are gathered, and as we become acquainted with methods and means which may enable more sophisticated analysis of the sites we are mapping. We believe that it is important to be engaging in the documentation and mapping of these sites now, ahead of a transition. As the experience of organisations working in other geographical locations has shown, a lack of preparedness and coordinated approaches can lead to sites being tampered with or damaged irreparably by journalists, police, soldiers and local people trying to understand what may have happened to their relatives. Valuable evidence may be put at risk when the integrity of mass grave sites is not protected, particularly where the remains constitute incriminating evidence. TJWG's Mapping Project may collect valuable witness testimonies to map the locations of mass grave sites, killing sites and repositories of documentary evidence, but it is beyond our current capabilities to develop and apply methods to exhume remains, gather evidence and conduct forensic analysis. This is the purview of trained professionals and we thus invite qualified parties to coordinate with us in pursuing the objective of preparing tools and methods that will aid the swift investigation of these sites when the opportunity arises.

^{68.} "Mass Graves of Yazidis Killed by the Islamic State Organization or Local Affiliates On or After August 3, 2014" (Yazda: Global Yazidi Organization, January 28, 2016), http://www.yazda.org/wp-content/uploads/2016/01/Yazda-Report-on-Mass-Graves-Jan-28-2016.pdf. The experience of experts working on sites of US war dead in both Koreas has found that culturally, Koreans tend not to want to touch or move human remains for reasons of superstition or discomfort. Dr. Jennie Jin, Project Manager of the US Defense POW/MIA Accounting Agency (DPAA), personal interview, 11 April 2017.

