Report

The potential of Nepal's social security allowance schemes to support emergency flood response

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Acronyms

DAO	district administration office
DDMC	District Disaster Management Committee
DRR	disaster risk reduction
DRM	disaster risk management
DRRM	Disaster Risk Reduction and Management (Act)
ECTP	Emergency Cash Transfer Programme
FGD	focus group discussion
GoN	Government of Nepal
НСТ	Humanitarian Country Team
IDI	in-depth interview
KII	key informant interview
MIS	management information system
MoFALD	Ministry of Federal Affairs and General Administration
MoHA	Ministry of Home Affairs
NGO	non-governmental Organisation
NHRVS	Nepal Household Risk and Vulnerability Survey
NISER	Nepal Institute for Social and Environmental Research
ODI	Overseas Development Institute
SSA	social security allowance
UNICEF	United Nations Children's Emergency Fund
VDC	village development committee

Executive summary

The devastating floods of 2017, which hit 27 districts in Nepal and affected 1.7 million people, were a catalyst for discussions about the future of shock-responsive social protection approaches in the country. In 2015, the United Nations Children's Emergency Fund (UNICEF) and the Government of Nepal (GoN) successfully delivered emergency response to beneficiaries of the social security allowance (SSA) schemes in areas affected by that year's Ghorka earthquake and this report examines whether such an approach would be appropriate or feasible in response to floods.

As such, the aim of this study is to assess the potential of using the SSA system to respond to floods in the *immediate future* (taking a two-year timeframe). The Terms of Reference provided by UNICEF for this study specified that the scope of the research would not examine the role of the SSA system in responding to shocks more broadly, nor its role over a longer timeframe. The study complements other ongoing work on the role of social protection in responding to emergencies in the country (see Slater et al., 2018) and forms part of a larger UNICEF project funded by the UK's Department for International Development (DFID) aimed at generating new policy-relevant evidence to strengthen the preparedness of Nepal's SSA schemes for disaster response.

The study comes at a particularly critical time in Nepal, given the recent changes brought in by the 2017 Disaster Risk Reduction and Management (DRRM) Act and the transition to a federal state. While on the one hand this provides unique opportunities to shape policy, it also poses challenges as some of the roles and responsibilities of local government relating to both emergency and SSA interventions are in flux during this transition period.

Findings

Using a mixed-methods research approach which draws on an analysis of the Nepal Household Risk and Vulnerability Survey (NHRVS) (World Bank, 2017) and primary qualitative data collected in three districts, our analysis results in several key findings on the potential role of SSA schemes to respond to future floods.

We find that there are a number of advantages to using SSA schemes as part of a wider emergency response to floods. These include using existing government capacity and administrative structures to channel payments to vulnerable groups in times of crisis, potentially reducing delays in delivering emergency assistance and increasing accuracy in targeting emergency response benefits (by reducing the risk of targeting lists being manipulated). The provision of cash as an emergency response mechanism is also increasingly seen as an appropriate intervention in Nepal, and one which would be valuable to beneficiaries of the SSA schemes.

However, our research also shows that there are a number of reasons to be cautious about how the SSA system could be used in future responses to flood emergencies, and careful consideration needs to be given to how these challenges can be overcome.

Coverage

First, our analysis shows that coverage of the flood-affected population using the *existing* SSA beneficiary list would be relatively low. Analysis of the 2016 NHRVS data shows that the proportion of flood-affected populations who are currently in receipt of an SSA would be around one-quarter of the affected population. Moreover, even within this 25% coverage rate, there are people that are in theory eligible for receiving SSAs but are excluded from doing so. Estimated take-up of most of the schemes is 70% and even lower for the disability allowance.

A simulation of an expansion of the targeting criteria to people over the age of 60 and all households with children under the age of five increases the potential coverage of flood-affected population to around 60%. This suggests that the possibility of expanding the scheme horizontally could be explored further.

Targeting

Second, targeting flood-affected populations is likely to be challenging, given existing data limitations. Analysis of the 2016 NHRVS village development committee (VDC) level data shows that only a small proportion of flood events affect a large proportion of the population. In the case of wide-scale floods like those seen in 2017, however, a large proportion of the population are more likely to be affected. At present, data limitations mean that there is no automatic mechanism to tell whether an SSA-receiving household is affected by the flood, or likely to be affected by a flood. Moreover, some community respondents reported that there could be difficulties using the SSA beneficiary list to provide emergency flood relief as the list of SSA beneficiaries would not necessarily match those who are affected by the floods. Mechanisms would thus have to be put in place to reduce any potential tensions within the community resulting from the targeting of flood relief through the SSAs, such as grievance mechanisms and clear communication channels.

Appropriate value

Third is the issue of determining an appropriate value for the cash transfer. While the value should be primarily determined by the objective, key considerations also include the issue of duplication of SSA beneficiaries within a household and different household compositions among beneficiaries. This issue is important when considering the overall efficiency and equity of using SSA schemes to reach flood-affected populations which target the individual, rather than the household, as it has implications for determining the value of the cash transfer and raises questions as to whether payments should be made at the individual level regardless of household composition and size, or whether they should be amended to reflect the presence of beneficiaries in the household. This is also important for perceptions of fairness among community members.

Capacity for service delivery

Finally, the fourth key issue is around capacity for service delivery and the identification of areas which need to be strengthened in the context of using SSA schemes for flood-response. With the transition to federalism, there is a degree of confusion around roles and responsibilities for emergency response activities, and multiple funding structures are also hindering a coordinated response. Moreover, federalism has also meant a change of roles and responsibilities at the ward level for SSA schemes, with civic awareness and responsibility for grievance mechanisms largely being left out at present. The important implication here is that if SSA schemes are used for something other than what they were originally intended for, beneficiaries and communities need clear information about this, otherwise tensions can occur. Other key factors are the uneven roll-out of the banking system and beneficiaries' ability to access cash, especially as travelling to receive an allowance could potentially be even more problematic in times of floods, given the difficulties in moving around and increased cost of transport.

Policy implications

These key findings have a number of implications for future policy relating to using SSA schemes as part of flood response. We discuss three key areas for moving forward:

Continue to invest in the SSA system to deliver on its core functions and strengthen its potential to be used as a shock-response mechanism Global evidence shows that reliable and timely delivery of social protection benefits at scale provides the foundations for using a social protection system in response to shocks. This enables social protection to achieve its core objectives of reducing poverty and vulnerability, which helps households in times of crisis while also allowing elements of the system – such as beneficiary lists, delivery of payments – to be used or amended to increase efficiency and effectiveness as part of an emergency response.

As such, there are key areas within the SSA system which need continued investment, not only to help prepare for possible flood response in the future, but also to ensure that the system is meeting its primary objectives. This will include, for example, overcoming the existing errors of exclusion which leave many eligible beneficiaries out of receiving support. This will involve supporting rolling enrolment of the schemes for elderly and single women, investing in awareness raising of the schemes and their eligibility, reducing complexities in the disability assessment and application procedure.

To help overcome these exclusion errors, and to ensure that benefits are delivered effectively, support is needed to build capacity at the local levels (ward and *palika* (rural municipality)) to deliver on their core functions in the implementation of SSA schemes – specifically on awareness raising and providing grievance mechanisms, as well as supporting the registration processes and delivery of benefits where the banking system is not yet operating.

Strengthening the development of the management information system (MIS) and the digitalisation of data which is held centrally and accessible to multiple stakeholders across sectors is also needed, especially to provide updated data to support better targeting if linked to shock-related indicators. Also ensuring that the roll-out of the banking system is appropriate and accessible for SSA beneficiaries, especially those who may face mobility constraints which may be heightened in a flood emergency.

Improve coordination across disaster response and social protection

If the SSA system is to be used as a response to floods, it will be part of a broader emergency

response. It is vital that there is close collaboration between disaster response and SSA actors at the national and the local levels. The role of SSA schemes in emergency response also needs to be planned in advance of an emergency so that resources are in place to be released when an emergency occurs (see OPM, 2017).

Moreover, opportunities should also be explored which link SSA beneficiaries to relevant complementary services and programmes which support resilience-building activities and recovery initiatives, with a specific focus on addressing the types of risks which marginalised and vulnerable groups face.

Using the SSA targeting list

It is clear that the SSA schemes should not be used to replace any emergency response mechanisms, but there are opportunities to explore where using the SSA beneficiary list (or parts of the system) could add value and increase the efficiency and effectiveness of flood responses. Options related to using the SSA beneficiary list for response include:

- Developing a flood-response plan with a focus on geographic areas most at risk of flooding.
- Providing a 'top-up' or 'additional payment' to existing SSA beneficiaries after the floods as part of recovery efforts.
- In highly affected locations, using the SSA beneficiary list in coordination with emergency response teams to automatically include flood-affected SSA beneficiaries in an emergency response – or to automatically exclude SSA beneficiaries from emergency response if the SSA system is providing a separate response.
- Horizontal expansion of the SSAs to increase coverage of the flood-affected population.

1 Introduction

Nepal is highly vulnerable to climate-related hazards. While every year Nepal faces predictable seasonal weather patterns which often result in floods, droughts or fires, the country also experiences more severe natural hazards which are likely to increase in frequency and intensity in the future. In 2015, two earthquakes killed nearly 9,000 people and injured almost 22,000 people. In 2017, devastating floods hit 27 of the country's 75 districts, affecting 1.7 million people. Eight districts were particularly hard hit. The floods destroyed almost 65,000 homes and displaced 461,000 people (91,400 families), resulting in a lack of food, water, sanitation, medicines, shelter, education, recovery and protection.

Nepal's approach to disasters has shifted in recent years, with the 2017 DRRM Act promoting resilience and preparedness as well as response. In addition, innovative approaches by emergency and development actors have sought to respond to an increasing scale of need. The role of social protection in responding to shocks is one of these approaches and it has seen increased high-level policy attention in recent years (e.g. the High Level Panel consultation meeting between GoN, donors and development partners in June 2018 in Kathmandu and the recent study on adaptive social protection commissioned by the World Bank (Slater et al., 2018)). These discussions have included a focus on the potential use of cash-based responses through the existing SSA system¹ to respond to emergencies (as was done in the 2015 Ghorka earthquake), as well identifying the need for feasible and sustainable approaches to respond to shocks under the evolving federal system.

In this context, the aim of this study is to complement ongoing work on the role of social protection in responding to emergencies in the country. It is part of a project aimed at generating new policy-relevant evidence to strengthen the preparedness of Nepal's SSA schemes for disaster response.

The study uses a mixed-methods research approach to assess the potential role of the SSA schemes to support emergency response efforts in future floods. We analysed data from the NHRVS survey (World Bank, 2017) and collected qualitative data in three districts (Bardiya, Jhapa and Rautahat). Specifically, we assessed the robustness of targeting and coverage in the context of flood response, the social acceptability of using SSA schemes to support emergency response, and capacity and coordination issues in delivering a timely response to a flood-affected population.

The report is structured as follows. Section 2 provides an overview of the research methodology. Section 3 provides an overview of the coverage of SSA schemes and their institutional arrangements. Section 4 provides a brief overview of the risk and vulnerability profile in Nepal, the disaster risk management policy and institutional arrangements, and key informants' perceptions about the potential linkages between the SSA schemes and disaster risk management (DRM). Section 5 then assesses the current state of flood response in the case study areas, drawing on our qualitative data. Section 6 appraises potential opportunities and challenges of using SSA schemes in response to floods, drawing on the analysis from the quantitative and qualitative data. Section 7 discusses and concludes, including a focus on the implications of the findings for future policy.

¹ The SSA system includes five cash-based transfer schemes which target the following categories of people: i) children of Dalit under five years of age; ii) widows and single women over 60 years of age; iii) people with disabilities; iv) senior citizens over 70 years of age (over 60 years of age in the case of Dalit); and v) highly marginalised indigenous ethnic groups (*janajatis*). In 2015/2016 approximately 2.7 million individuals received an SSA (New Era, 2016, cited in Schjødt, 2017).

2 Research methodology

This research used three research methodology tools: a review of existing literature, collection of primary qualitative data, and analysis of the 2016 data from the Nepal Household Risk and Vulnerability Survey (World Bank, 2017).

2.1 Desk-based

A brief review of relevant published and grey literature was conducted prior to designing the research tools and was further developed during the study. The review was not comprehensive but aimed to be informative on the following themes: the existing strengths and weaknesses of the SSA schemes in general; current DRM policies, institutional setting, and coordination/ synergies with social protection at the national and local levels; and international experiences of targeting cash in emergencies.

2.2 Qualitative methodology

Qualitative research was conducted in three districts – Bardiya, Jhapa and Rautahat – between May and July 2018, alongside key informant interviews (KIIs) at the national level in May 2018. Lists of respondents are provided in Annex 1.

Purposive sampling was used to select the districts, with the following criteria taken into consideration:

• Risk and vulnerability to floods: districts chosen have recently experienced a flood and are prone to flooding on a recurrent basis.

• Functioning SSA schemes: districts chosen have at least four of the SSA schemes being implemented, with the schemes well established and operating with relatively high levels of coverage.

In Bardiya, fieldwork was conducted in Gulariya municipality which, according to the District Disaster Management Committee (DDMC), is one of the areas highly affected² by floods in 2015 and 2017. According to the Ministry of Home Affairs (MoHA) (2017) 134,804 people in Bardiya district were affected by these floods.

In Jhapa, fieldwork was conducted in Gaurigunj rural municipality and Mechinagar municipality. Gaurigunj faces repeated flooding, causing damage to houses and in Mechinagar land erosion due to floods, is a recurring problem. According to MoHA (2017), 24,980 people were affected by the 2017 flood, which damaged houses and caused displacement (Nepal Red Cross Society, 2017).

In Rautahat, fieldwork was carried out in Chandrapur municipality, which was among the most flood-affected areas in Rautahat in both 2015 and 2017. According to MoHA (2017), the 2017 flood affected 266,486 people.

A total of 65 interviews were conducted for this study: 24 key informant interviews at the national and district/ward (study site) level, 22 focus group discussions (FGDs), and 19 in-depth interviews (IDI) (Table 1, with further detail in Annex 1).

For the FGDs and IDIs, the sample was divided to ensure a balance of female and male respondents. For the FGDs, we interviewed

² The measurement of the effects of floods described here is carried out by a three-member team from the DDMC. The committee consists of government, UN and other non-government and civil society members working together in a cluster approach. The team carries out an 'initial rapid assessment' and 'cluster-specific detailed assessment', establishing which areas and households are to be classified as highly affected.

Tool	Bardiya	Jhapa	Rautahat	National	Total
IDI	6	6	7	_	19
FGD	7	8	7	_	22
KII (study sites)	7	6	4	_	17
KII (national)	_	_	_	7	7
Total	20	20	18	7	65

Table 1 Summary of interviews and number of respondents by site

beneficiaries by the type of SSA they receive – for example, we organised separate groups for those receiving the child grant, single women's allowance and senior citizens' allowance. IDIs were arranged with those receiving the disability allowance instead of conducting an FGD because there were not enough people receiving the disability allowance who we were able to interview in each ward, and for those who had physical disability, we were unable to bring them all to one place due to mobility problems.

Since the main criteria for the selection of the respondents was being affected by flooding, there is homogeneity in the ethnicity of respondents. This is because the settlements in the clusters we attended are homogenous in ethnicity. In Bardiya, respondents were from the Muslim and Tharu communities, while those in Rautahat were from the Madheshi community. In Jhapa, ethnicity was more mixed: respondents in Gaurigunj belonged to the Meche community, while those in Mechinagar were from the Madheshi and Pahadi communities.

Regarding the age of respondents, with the exception of child grant recipients, we interviewed women and men who were above 70 years of age. For child grant recipients, the age of respondents ranged from 20 to 35 years of age. For non-recipients of the SSAs, the age of respondents was more varied, ranging from 21 to 72 years old.

Interviews were carried out by researchers from the Overseas Development Institute (ODI) and colleagues from the Nepal Institute for Social and Environmental Research (NISER). With appropriate consent, all interviews were recorded and then translated and transcribed. A coding structure was developed jointly by the ODI and NISER team and the interviews were then coded and entered into the MAXQDA qualitative data analysis programme. Data from the coded segments were summarised into themes using Microsoft Excel; the analysis also explored differences emerging from different variables, including site/location and gender.

The ODI and NISER team adhered to UNICEF's standard operating procedures on research and evaluation, and ODI's internal ethics approval process. Informed consent was obtained from all study respondents. Anonymity is maintained throughout this report, with no real names of respondents included.

The qualitative component faced the following limitations:

- We only held IDIs with people with a physical disability.
- Since the sites were selected based on the impact of flooding, the ethnic mix is not evenly balanced. In each site we aimed to have a representative mix of ethnicity across the respondents, but when affected areas are generally ethnically homogenous, it was difficult to get the desired level of representation. For example, in sites in Bardiya there was a greater representation of people from the Madheshi community, while in Jhapa our respondents were mainly the Meche population who live in areas where houses were damaged/submerged. We attempted to include other ethnic groups in the FGDs if they were present in the same village, and only carried out an ethnically homogenous FGD when this was not possible.
- In Rautahat, it was difficult to find men who were not SSA beneficiaries in some sites. Since the child grant is universal in Rautahat (i.e. eligibility not restricted to Dalit children), the chances that a household does not contain a

beneficiary are reduced. Further to this, many working age men were away working abroad or in the brick kilns, living outside the study sites for weeks at a time or starting very early in the morning and coming home late in the evening, and so unable to participate in an interview. As a result, the FGDs in Rautahat did not have the participation of nonbeneficiary men. Instead, we carried out an extra FGD with non-beneficiary women.

2.3 Quantitative methodology

Our research uses secondary analysis of microdata from the initial 2016 wave of the NHRVS to assess how far the five SSAs cover households that experience a covariant natural 'shock'. We focus on floods to reflect UNICEF's priority on monsoon flood preparedness and response.

The NHRVS samples all households in nonmetropolitan areas (as per the 2010 Census definition). This excludes households in the Kathmandu valley (Kathmandu, Lalitpur and Bhaktapur districts). The survey has an achieved sample size of 6,000 households (28,968 individuals) (World Bank, 2017).

The survey contains data at the 'community' (VDC) level, based on responses from a 'knowledgeable and reliable' respondent. The VDC level data for the 2016 NHRVS may not align with changing local government accountability arising from the current implementation of federalism. We use the VDC level data to profile shocks in the small geographical areas represented by this level of local government. This allows us to understand how widespread or concentrated different forms of shocks were at the smaller geographical level below district. From this evidence we are better able to suggest ways in which areas can be identified for any 'shock-responsive' policy for SSA schemes.

Our main analysis focuses on the household level data from NHRVS. In this data, respondents are asked if they experienced a shock in the previous 24 months. The timing of the survey means that the data covers recall of shocks that occurred since 2014 and thus includes the severe Ghorka earthquake in 2015 but *does not include the severe monsoon floods that occurred* *in* 2017, which is what prompted UNICEF to explore SSA schemes in flood shock response and preparedness.

Flood in the period 2014–2016 is reported infrequently and thus sample sizes are small. Only 3.2% (192 observations) report experiencing flood shocks, while 18.9% (1,134 observations) report experiencing drought. Once we consider the sub-populations that receive SSAs, we end up with very small samples for SSAs in response to flood shock. We thus use those reporting drought shock to exemplify the coverage of SSAs for a climate-related shock and to supplement the very small samples. But this choice does not equate the nature of drought and flood shocks – they are very different, with varying degrees of length in their onset, affecting different population sizes and with differential impacts.

In an attempt to replicate the 2017 experience of floods on the 2016 surveyed population, we also used an alternative sample of households who lived in 14 districts that experienced the 2017 floods to give a revised assessment of coverage by SSAs in districts with a likelihood to experience monsoon floods in the future. However, this high level of geographical identification will not reflect the actual incidence of flood shock within those districts, as floods would only affect populations in flood plains and valley floors within them.

The other element in our household level analysis is a consideration of the population receiving SSAs. We were able to identify numerous recipients of senior citizens', single women's, disability and child grant SSAs. However, only one observation was available for the endangered ethnicity SSA, so we exclude this observation in our analysis of receipt. Furthermore, the sample of recipients of the other four SSA categories is inconsistent. The

Table 2Population and sample affected by floodand drought shocks in NHRVS 2016

	% of households affected
Flood	3.2 (n=192)
Drought	18.9 (n=1,134)

Source: 2016 NHRVS data (World Bank, 2017)

survey data suggests take-up-rates around 70% for the senior citizens', single women's and disabled SSAs, but very low rates of take up (around 30%) for the child grant SSA. Evidence from other surveys suggests that this is too low an estimate and probably a result of response errors, the choice of household respondent or

sampling errors in the NHRVS. Accordingly, we additionally calculate the 'full entitlement', or 100%, take-up, assumption to illustrate what the potential coverage of shock-affected populations would be if take-up was maximal. We are additionally able to include the endangered ethnicity SSA in those full take-up profiles.

3 Overview of Nepal's social security allowance schemes

The SSA system includes five cash-based transfers which target the following categories of people:

- children of Dalit under five years of age (or child grant)
- 2. widows and single women over 60 years of age (or single women's allowance)
- 3. people with disabilities (or disability allowance)
- 4. senior citizens over 70 years of age (over 60 years of age in the case of Dalit) (or senior citizens' allowance)
- 5. highly marginalised indigenous ethnic groups (*janajatis*) (or endangered ethnicities allowance)

3.1 Design and implementation of the SSA schemes

The schemes are largely designed to tackle lifecycle risks – focusing on the young and elderly – or idiosyncratic risks in the case of the single women's and disability allowances. The majority of the programmes are targeted on the basis of these individual characteristics. However, senior citizens' allowance also has specific provisions for Dalit households and the child grant also covers the whole population in the Karnali zone.³ There is no targeting criteria which relates to risk or vulnerability to covariate or climate-related shocks.

Table 3 provides an overview of the key features of each of the schemes.

Allowance	Target group	Amount per month (Nepalese rupee (Rs))	Frequency of transfer
Child grant	Dalit household with children (0-5 years)	400	Every four months
Single women's allowance	Single women (60–70 years old), widow of any age	1,000	Every four months
Senior citizens' allowance	70 years and above (60 years and above for all Dalits and Karnali zone residents)	2,000	Every four months
Disability allowance	People with disability (based on assessment)	2,000 (red card holders*) 600 (blue card holders**)	Every four months
Endangered ethnicities allowance	People belonging to one of 10 endangered ethnic groups	2,000	Every four months

Table 3 Overview of social security allowances

* Red card holders are those with a 'profound disability ... persons who are physically or mentally disabled, are unable to live their daily life without full support of others' (GoN, 2017).

** Blue card holders are those with a 'severe disability ... Persons who require continuous support from others in their daily life' (GoN, 2017).

3 The Karnali Zone covers five of the poorest districts in Nepal: Dolpa, Humla, Jumla, Kalikot and Mugu.

Together, these programmes represent the largest social assistance programme in Nepal. In 2015/2016, approximately 2.7 million individuals received an SSA (New Era, 2016 cited in Schjødt, 2017). The senior citizens' allowance has the highest number of beneficiaries (over one million), followed by the single women's allowance and the child grant (almost 500,000 per scheme). All of the schemes are domestically funded through taxes.

At the central level, the Ministry of Federal Affairs and General Administration (MoFAGA) is primarily responsible for the SSA schemes except for Department of Civil Registration, which has now been moved under the Ministry of Home Affairs as Department of National ID and Registration. Its mandate is to provide overarching policy and programme design. At the municipal level, the office works as an intermediary for funding and data flow. It forwards the budget and approved SSA beneficiary lists to the ward offices in the case of manual cash transfers. In the case of bank transfers, the municipality forwards the money from the Ministry to the bank and collects data on the cash transfers from the bank. MoFAGA also makes SSA cards for scheme beneficiaries and MoHA keeps the data on the beneficiaries, including recording beneficiaries who have died or permanently migrated. In these cases, the bank keeps the money in the person's name for a year and then informs the municipality.

The ward level within municipalities is the key point of SSA delivery. The documentation process necessary to become a beneficiary of an SSA scheme is carried out at this level. Potential beneficiaries need to register themselves at the ward offices for receiving SSA allowance, and submit their documents in the ward. The ward offices submit the documentation collected from potential beneficiaries to the municipality and MoFAGA. Once verified, the documentation is sent back to the ward. Under the new arrangements, the process goes through the municipalities and urban municipalities directly. Depending on the type of SSA, the registration is different. For senior citizens' allowances, for example, registration takes place three times a year. For others, registration is open throughout the year, such as the disability allowance, single women's allowance and the child grant. The ward office is then responsible for collecting any further proof required to obtain an SSA, such as parents' marriage certificates or birth certificates.

Payments via the banking system are currently being rolled out. At the time of research, the majority of *palikas* provide payments in cash rather than through the banking system, mainly due to a lack of infrastructure and the unavailability of banks and/or other financial operators in large parts of the country (KII 19). A World Bank system-strengthening project is supporting the expansion of an e-payments systems. However, as discussed below, many beneficiaries still face challenges accessing the banking system.

Ward offices distribute SSAs where the banking system is absent. Additionally, they handle any grievances raised. Prior to federalisation, the ward citizen forum and citizen awareness centre disseminated information about SSA schemes, helping people to prepare documents, informing them about when and where the allowance was being distributed, helping them to collect SSAs when distributed and also monitoring the distribution. With the new federal system, local elected representatives are supposed to be taking over this work. However, these bodies have not yet been formally recognised in the federal system and hence do not currently perform their expected functions. The implications of this for flood-response is discussed below.

It is important to note that GoN and donors have recently invested in increasing capacity and efficiency at both the central and ward level.⁴ These efforts include moving towards digitalising data (the Department of Civil Registration is planning to digitise all the hard-copy data they have), creating a civil registration system and strengthening MIS, as well as expanding the online registration for SSA schemes (KII 19). Moreover, while people currently have to renew their SSA cards each year, they will not have to do this once the system is fully functional (KII 19).

⁴ E.g. the service units in local government wards funded by the World Bank.

These developments offer important opportunities to strengthen the functioning of the SSA system to deliver its core functions effectively – including distributing payments on time and easing the administrative burden associated with registration for an SSA scheme. Improvements in these systems also provide a better foundation for adapting the system to help respond to shocks.

3.2 Existing evidence on challenges in the SSA schemes

While there are ongoing investments in strengthening the capacity and systems to deliver the SSA schemes, there are still a number of challenges remaining that have implications for any future role of SSA schemes in flood-response in Nepal.

3.2.1 Exclusion errors

While exact coverage rates for the schemes are difficult to obtain given the lack of data disaggregated by target group, exclusion errors have been identified as a key challenge by various studies, though the extent of these errors varies according to the source, especially in relation to the senior citizens' allowance. According to the 2011 Nepal Living Standards Survey (World Bank, 2014, cited in Palacios, 2016), 46% of people eligible for the senior citizens' allowance were not receiving it. However, according to Babajanian (2013, cited in Sijapati, 2017), 20% of the elderly do not receive the allowance. Similarly, only 20% of children under five were receiving the child grant in 2015 (CBS, 2011; MoFALD data, 2015, cited in Hagen-Zanker et al., 2015); 35% of eligible women were not receiving the single women's allowance (World Bank, 2014, cited in Palacios, 2016); and 58% of red and blue card holders do not receive the disability allowance (Holmes et al., 2018).

Reasons for exclusion errors include people not applying (including being unaware of how to apply), applications still being processed, a lack of correct documents (birth certificates and/ or registration, citizenship documents), being unaware of the existence of the SSA schemes and difficulties in accessing the schemes, e.g. for those with a disability or people who have migrated (Hagen-Zanker et al., 2015; Holmes et al., 2018; New Era, 2016).

3.2.2 Limited capacity of VDCs

The limited capacity of VDCs to implement SSA schemes is noted in almost all studies reviewed. Capacity problems are due to a lack of coordination in the organisational structure, limited management capacity and limited additional funding and other resources to manage the schemes. VDCs were found to be overloaded, with VDC secretaries - those responsible for signing off on documentation for SSA scheme registration - rarely present at the VDC offices (in part because of transport-related challenges). There were also significant challenges with keeping and updating records, limiting the ability of VDCs to produce reliable data (Ligal and Shrestha, 2012; Adhikari et al., 2014; Hagen-Zanker et al., 2015; New Era, 2016; Palacios, 2016; Schjødt, 2017; Holmes et al., 2018). As mentioned above, the roll-out of the MIS aims to address some of these challenges.

3.2.3 Communication and information sharing

Linked to the limited capacity and largely due to limited resources, studies also note difficulties with communication and information sharing, leading to low levels of awareness of SSA schemes among their potential beneficiaries (and indeed even sometimes among VDC officials and other scheme implementers). There are particular problems with awareness of the eligibility criteria. However, studies also note considerable variation in awareness levels by scheme, gender, age and ethnicity. For instance, there is more awareness of SSA schemes among men in general and there is a greater degree of awareness of the senior citizens' allowance and the single women's allowance than of the other schemes (Hagen-Zanker et al., 2015; Schjødt, 2017; Holmes et al., 2018; Joshi, n.d.;).

3.2.4 Challenges in the enrolment process

Challenges in the enrolment/registration process are relatively widespread across all schemes. These arise from challenges already outlined above, including a lack of information and awareness about eligibility and how/where to register. They also arise because of language and literacy issues (particularly for older single women); a lack, or loss, of appropriate documentation (which can be a result of disasters); difficulties in accessing ID cards (e.g. for people with disabilities); transportation issues; and difficulty paying application fees. The requirement to regularly renew ID cards can also pose problems in terms of cost and accessibility. Finally, cultural barriers, particularly among single women and widows, prevent some from accessing SSA schemes, e.g. being blocked by in-laws from registering (Ligal and Shrestha, 2012; Adhikari et al., 2014; Hagen-Zanker et al., 2015; New Era, 2016; Schjødt, 2017; Holmes et al., 2018).

3.2.5 Disbursement of benefits

The studies noted a number of challenges with respect to the disbursement of benefits, many related to the limited institutional capacity of the VDC offices. Disbursements were often delayed, irregular or not the correct amount (Adhikari et al., 2014; Hagen-Zanker et al., 2015; New Era, 2016; Holmes et al., 2018; Joshi, n.d.). It is hoped that the new banking system being rolled out across the country, despite teething problems and not yet being available across the country, will ultimately help resolve disbursement issues (Schjødt, 2017; Holmes et al., 2018;). It is also hoped that this new means of disbursement may address some of the challenges posed by having to access VDC offices to obtain payments, though Holmes et al. (2018) noted the potential for difficulties in accessing payments through banks and/or ATMs for people with disabilities (e.g. if they have visual impairments or challenges related to physical access). Our analysis below supports these findings.

3.2.6 Accountability processes

According to Schjødt (2017), there are no resources allocated to accountability processes, such as grievance mechanisms. Compounding this, as noted below, roles and responsibilities have changed with the new government system. Previous studies have noted that VDC accountability appears to be rather limited while 'nepotism, rent seeking and favouritism are rife. Citizens have low trust in the government to begin with' (Adhikari et al., 2014: 42). There was also a sense that beneficiaries do not complain from fear of losing out on the benefits to which they are entitled (Adhikari et al., 2014), or because of a culture of not speaking out (Hagen-Zanker et al., 2015; Holmes et al., 2018).

4 Risk and vulnerability to natural hazards in Nepal

4.1 Natural hazards in Nepal

The INFORM index for risk management classifies Nepal as a high-risk country, taking into account hazard exposure, vulnerability and coping capacity.⁵ Between 1971 and 2013, according to the global disaster database DesInventar,⁶ at the national level there were 16,098 deaths from natural hazard events, 6,391,568 people affected and 447,276 houses destroyed or damaged. There is also growing concern about potential hazard impacts associated with climate change, such as extreme precipitation contributing to flooding and landslides, prolonged dry periods causing droughts affecting agricultural production and food security, as well as impacting electricity supplies from hydropower, and urban water scarcity and health and sanitation challenges (UN-Habitat, 2015).

The DesInventar database shows that, between 1971 and 2013, fire has accounted for nearly a quarter of all reported shocks in Nepal, closely followed by floods, epidemics and landslides. Epidemics have contributed to the greatest number of reported deaths, while floods have caused the greatest damage to housing and also resulted in the greatest number of people indirectly affected. From 1983–2013, landslides and floods resulted in losses worth \$235.8 million, along with over 8,000 deaths and 228,561 houses destroyed. The risk of such disasters is accentuated by Nepal's hydrology, in which 80% of the annual rainfall is received in less than three months (Gaire et al., 2015). In 2017, floods and landslides affected 35 districts, triggered by the heaviest monsoon rains in 15 years (UN OCHA, 2017).

Earthquakes, though relatively infrequent, have been extremely damaging. The 2015 Gorkha earthquake and its aftershocks caused over \$7 billion in losses and killed nearly 9,000 people (National Planning Commission, 2015). According to GoN estimations, the 2015 Gorkha earthquake alone pushed more than 700,000 Nepalis (2.5-3.5%) of the population) back below the poverty line, with 50-70% of the increase in poverty in the rural central hills and mountains where overall vulnerability was already high before the earthquake. Damage to water and sanitation services, disruption of schools and health services, and a potential rise in food insecurity were also likely to have an increased impact on multidimensional poverty (ibid.)

Risk varies based on geography, with central and western Nepal experiencing summer and winter droughts, with significant implications for food security. Drought has presented a significant risk to Nepali populations for many years; for instance, there was a severe drought episode in 2008/2009 (Wang et al., 2013; Dahal et al., 2016).

With regards to floods – the focus of this study – most floods occur during the monsoon season, between June and September, when 80% of the annual precipitation falls, coinciding with snowmelt in the mountains (UN HCT, 2018). Flood exposure is higher in the plains, with the

⁵ http://www.inform-index.org/Portals/0/Inform/2018/country_profiles/NPL.pdf

⁶ https://www.desinventar.net/

Terai region most exposed to flood risk. In 2014 and 2017 the impacts of floods were particularly severe. In August 2014, heavy rainfall caused floods and landslides across 17 districts, affecting approximately 30,000 families (UN HCT, 2018: 2). In 2017 approximately 1.7 million people across the Terai were affected by monsoon floods, including 460,000 people who were displaced from their homes (ibid.).

A trend analysis conducted by the UN Humanitarian Country Team in 2017 to prepare for the monsoon floods identified that the areas most at risk of flooding in 2017 were Provinces 1, 2, 3, 4, 5, 6 and 7 (UN HCT, 2018).

While the impacts of severe flooding can affect a relatively large geographic area and number of people, analysis also shows variation in the extent to which floods and landslides affect geographic locations and population. For instance, analysis of the NHRV data shows that typically floods and landslides are geographically concentrated in their effects and tend not to affect a high proportion of the population in a community: less than 5% of the 72 VDCs that reported experiencing such shocks said that 75% or more of the population were affected (World Bank, 2017). However, 57% of those VDCs reported up to 25% of the population was affected, 21% reported 25-50% was affected, and 17% reported 50-74% of the population was affected (ibid.). Some care must be taken in interpreting these estimates, but they support the underlying finding that floods and landslides are geographically concentrated in their effects.

The impacts of floods are multiple, and can be long-lasting. Floods damage houses and infrastructure, causing displacement, affecting access to services, and increasing risk of disease outbreaks. Some groups of people may be more severely impacted than others. Marginalised or disadvantaged groups, for instance women, children, elderly, Dalit persons and people with disability, face heightened exposure to protection risks (UN HCT, 2018), and women (especially single women and female-headed households) face additional workload due to increased care responsibilities. This affects their mental and physical health, and reduces their time for income generation and accessing relief and recovery support (UN Women et al., 2017). Indeed, anecdotal reports from flood-affected districts in 2017 indicate that these marginalised groups are in need of targeted support to ensure equitable access to and benefit from relief, services and information in response to floods (ibid). Agricultural livelihoods are also adversely affected as large areas of standing crops are flooded and destroyed, and livestock and poultry killed (UN HCT, 2018).

Analysis from the NHRVS (waves 1 and 2) shows that the poorest households tend to cope with shocks by drawing on negative strategies such as borrowing (and getting into debt) and reducing food consumption (thereby being more food insecure) (Slater et al., 2018). While the same analysis suggests that public cash assistance, such as the SSA, may help mitigate the effects of shocks on food insecurity, the role of the SSAs currently only provides limited support in the context of shocks (ibid.). These issues are discussed in more detail from our qualitative research in three case study areas in sections 5 and 6 below.

4.2 Key disaster risk management policies and institutional arrangements

Historically, Nepal has had a complex legal framework relating to disasters, comprising a number of different acts issued over many years, and assigning roles and responsibilities to a range of institutional actors, with a risk of creating inefficiency and confusion during and after events. For many years the 1982 Natural Calamity (Relief) Act, was the main legal instrument for disaster management, but this, as its name indicates, focused on disaster response.7 In 2009, following severe floods in parts of the country the previous year, a more coordinated National Strategy for Disaster Risk Management was approved, which followed the principles of the international Hyogo Framework for Action (2005–2015) by setting out a broader approach that aimed to integrate

⁷ It was complemented by other legal and policy instruments: the Nepal Water Resources Act 1992; Nepal Water Resources Strategy 2002; National Action Plan on Disaster Management 1996.

disaster risk reduction (DRR) into sectoral planning and strengthen community resilience capacities, in addition to directing response. It outlined the responsibilities of each sector or line agency, with several aims relevant to social protection, including: mainstreaming DRM into development plans; ensuring life safety and social security; giving emphasis to gender and social inclusion; and decentralising implementation. The 2011 National Disaster Response Framework is a tool for implementing and coordinating response planning, aimed at ensuring that all elements of the disaster management cycle are considered; it also allocates responsibilities between relevant actors.

Previous legislation has been overtaken by the 2017 Disaster Risk Reduction and Management Act (DRRM Act), which formally supersedes the 1982 Natural Calamity (Relief) Act as well as responding to Nepal's recent constitutional changes, including the transition to federalism. The DRRM Act covers the full cycle of DRM, from prevention to recovery. It also establishes new institutional mechanisms, which are drawn from the 2009 National Strategy for Disaster Risk Management. These include the Disaster Risk Reduction and Management National Council, chaired by the Prime Minister, which is ultimately responsible for works relating to DRR and DRM, and an Executive Committee to enact policies and plans approved by the Council (MoFAGA is part of this committee). The Act also establishes a National Disaster Risk Reduction and Management Authority, which is responsible for the effective implementation and coordination of disaster management activities, and also for receiving and mobilising cash and in-kind assistance for DRM. The Authority is located within MoHA, which has historically focused on disaster preparedness and response, and its powers and authority are not yet fully defined. They are expected to be made clearer through subsequent regulation.

An important feature of the new legislation is the aim to decentralise DRM to the local level. The 2017 Local Governance Act shifts responsibility for response and DRR to urban and rural municipalities, although it is not yet clear how much capacity these bodies have to manage disasters and disaster risks (discussed in more detail in the case study sections below). Donors and development partners also play a key role in funding and implementing interventions related to disaster preparedness, response and recovery.

In terms of flood response, in 2008 a cluster system was set up, which is activated by GoN during floods. The 11 clusters⁸ work under the DDMC chaired by the chief district officers and including all district-level agencies of government, police and security forces, international and national non-governmental organisations (NGOs), civil society members working on disaster and political representatives such as municipal chairs. All the clusters are led by government and co-led by UN in coordination with other international and national NGOs and other humanitarian agencies. Government funds are channelled through the district administration offices (DAOs) while some donors may deposit their funds in the central treasury, the national level Disaster Risk Recovery and Mitigation Fund and the Prime Minister's Disaster Relief Fund. Once activated, the clusters work with their members and reach out to the affected areas through the local government system.

There are also now common assessment guidelines used to help target flood response (currently under revision), which were recently established as a way of coordinating the numerous assessments carried out by different organisations. There are four stages of assessment, and the details of assessment methods, organisations involved, stages and what the information feeds into are given below in Table 4 below.

⁸ The 11 clusters are: water, sanitation and hygiene; shelter; protection; nutrition; logistics; health; food security; emergency telecommunications; education; early recovery; and camp coordination and camp management.

Tool	Status and timeframe	Who is involved	Methods	Objective and focus
Step 1: Initial Rapid Assessment (IRA)	Compulsory To be done within 24 hrs of disaster	To be done by committee consisting of municipality/ rural municipality secretary or representative, Nepal police, Nepal Red Cross Works under the direction of Chief District Officer	Interviews, group discussion, observation and key person interviews	For assessing immediate relief required to save life of affected people For getting basic data for making response plan and for identifying sectors that need the most urgent attention
Step 2: Multi-Cluster Initial Rapid Assessment (MIRA)	To be done if IRA suggests that more than two sectors need immediate response To start within 7 days and complete by 15 days	Under the direction of the Central Disaster Management Committee To be done by national level government organisation in coordination with national emergency operation centre and international humanitarian organisations and UN agency members coordinated by UNOCHA	Interviews, focus group discussion, observation and secondary sources of information	To understand the extent and nature of sectoral loss in order to prepare response plan
Step 3: Cluster- Specific Detailed Assessment	If there is a need for additional response in certain clusters after IRA and MIRA report To start within 15 days and to be completed within 45 days	Cluster-specific actors working in collaboration and expertise within the cluster	Interviews, focus group discussion, observation and secondary sources of information	To understand in detail the scope and the extent of the impact in identified clusters It will help in early and long-term recovery.
Step 4: Post- Disaster Needs Assessment (PDNA)	Done under special conditions only by decision of the government if/when loss due to disaster is huge After relief activities	The Government of Nepal decides the lead and other cluster members to be engaged They will select multi- sector experts to carry out this assessment	Interviews, focus group discussion, observation and secondary sources of information The questions for this survey will be produced with consensus of engaged team members.	The objective of this assessment is to understand the impact of disaster on multidimensional aspects of people's lives in such areas as health, education, livelihoods, infrastructure, agriculture, economy and governance The output is then to be used for reconstruction and long-term and sustainable development of the affected area

	Table 4	Common	assessment	guidelines	for ta	rgeting	flood re	sponse
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- 1. Initial rapid assessment quick data collection for response saving lives – done by Red Cross, armed police and ward secretary, and has to be done within 24 hours of a disaster. The information is used for getting basic data for making a response plan and for identifying sectors that need the most urgent attention.
- Multi-cluster rapid assessment (MCRA) looking at multi-sectoral impacts – has to be done within 7–15 days of the disaster. The information is used to gather information about the extent and nature of sectoral loss in order to prepare response plan for different sector such as agriculture, health, education etc.

- 3. Cluster-Specific Detailed Assessment details assessment on the impact in each sector. It is supposed to start within 15 days and to be completed within 45 days of the disaster. The information is used to understand in detail the scope and the extent of the impact in the eight identified clusters to help in early and long-term recovery in each cluster.
- 4. Post-disaster needs assessment (PDNA) done under special conditions only by the decision of the government if/when loss due to disaster is huge. This is supposed to be done after completion of relief activities. The objective of this assessment is to understand the impact of disaster on multidimensional aspects of people's lives in areas such as health, education, livelihoods, infrastructure, agriculture, economy and governance. The output is then to be used for reconstruction and long-term and sustainable development of the affected area.

Key informants for this study also noted that in recent years much more emphasis has been placed on preparing for floods. Two key processes were highlighted in our interviews: a better understanding of risks and vulnerability in the population, and the use of this data to plan and prepare for monsoon floods (KII 18, KII 20, KII 22).

In order to better understand risks and vulnerabilities, the NHRVS has created panel data which aims to understand the risk and vulnerability profile of households, and how people recover from shocks. Another intervention has been the establishment of an automated telephone system to gather feedback on what people need immediately after, and three weeks after, a disaster to help target assistance. There are also maps of risk and vulnerability at ward levels underway.

This sort of data can help to fill the knowledge gaps on the risk and vulnerability people face, providing a fuller picture at the national, local and household level. Going forward, it will be important to be able to connect and coordinate this data to inform flood-response interventions. The HCT is working with clusters to do this as well as planning better for monsoon flooding by estimating costs, capacity and the details of potential cluster interventions. The unprecedented response need and 'blanket' relief for households in 2017 means that there is a need to reduce the budget for future potential response activities. This also has implications for future targeting, with discussions at the time of this research prioritising the most vulnerable (e.g. pregnant women and nursing mothers, children).

4.3 Institutional linkages between DRM and SSA schemes

The recent DRRM Act supports a sectoral approach to reducing risk across the disaster cycle and, as such, offers opportunities for integration and/or coordination between DRM and social protection actors. The new National Disaster Risk Reduction Management policy, for example, has the provision to potentially use SSA schemes in a disaster (MoHA, 2018). However, despite recent discussions on the role of social protection in supporting emergency response, our respondents suggested that there has been limited operationalisation of these linkages in practice. While the recent High Level Panel on Shock-Responsive Social Protection provided a space for this discussion, on which there is increasing interest, there are still no formal mechanisms or guidelines developed which would operationalise the use/mobilise SSA schemes for disaster response.⁹ At the local level, there are more obvious opportunities for linking DRR and SSA schemes, partly because there is a significant overlap in responsibilities at the ward level between delivering emergency response and delivery of SSA schemes. However, the discussion at this level tends to focus on response rather than preparedness strategies.

Key informants at the national level (e.g. development partners part of the HCT, Social Protection Task Team and cash coordination group (CCG) interviewed for this study) reported that they do see a role for the SSA system in responding to floods (KII 18, KII 20, KII 22).

⁹ However, Slater et al. (2018) has further discussion and options on adaptive social protection.

They noted key advantages of using the SSA system for flood response, including avoiding setting up a parallel cash transfer delivery system and potentially using the SSA beneficiary list, which could reduce delays and data errors in targeting. However, it was also noted that there would likely be a mismatch in identifying people in need due to differences in the targeting criteria used for emergency response and SSA schemes, a problem that would need to be overcome. One KII also noted that while it was appropriate to use blanket approaches in the case of an earthquake, floods require targeted interventions because the effects are much more localised (see further discussion in the case studies below).

Another key motivation for using the SSA schemes in flood response is the increasing use of cash as part of a broader emergency response, and the preference for using cash (or voucher) responses when markets are functioning. In recent years there has been a growing focus on cash as an initial response, such as in the GoN's emergency response to the 2017 floods, and the GoN/UNICEF Emergency Cash Transfer Programme earthquake response in 2015. Assessing the needs and preferences of people with regards to using cash, including needs based on gender, has also been part of the automated telephone feedback system mentioned above, which will inform future interventions. In addition, given that cash as a tool is cross-cutting and is not part of the cluster system, the CCG, established after the earthquake, is developing principles/guidelines for implementing cash transfer. Key challenges in using cash, however, were also mentioned in relation to the limitations of the current banking system.

5 Recent experience of floods and emergency assistance in case study sites

This section brings together the findings from the qualitative research in the three case study areas, in relation to recent floods and emergency response.

5.1 Risk and vulnerability in case study sites

5.1.1 Type and frequency of risks

Given the pre-selection of the study sites, flooding was the most common form of emergency in all study areas. The types of flooding and the effects of floods were, however, different across the communities. In the case of Mechinagar in Jhapa, flooding results from the river changing its course and flowing onto the land, which then becomes submerged. This leads to land erosion (locally known as katan) and can also lead to the destruction of houses and even the displacement of whole villages. In the case study villages in Chandrapur in Rautahat and Gulariya in Bardiya, flooding was caused by heavy rainfall leading to the overflow of a dam. The impact of the flooding is referred to as *duban*, which refers to a more direct impact with, among other things, houses and fields becoming submerged and cattle swept away. Windstorms (occasionally resulting in fire outbreak in Rautahat and Bardiya), hailstorms and water-borne diseases were other emergencies reported commonly in all the three sites. While the severity of the natural hazards vary, the seasonal nature of risk is fairly predictable: 'During the monsoon season, it is

floods that affect people, and during the dry season, it is fires that affect people. It varies in every season.' (IDI with male beneficiaries (senior citizens' allowance), Bardiya).

While communities in the three sites had mixed responses as to whether the frequency of floods had increased or decreased, they largely report experiencing larger, more severe floods and more frequent hailstorms than in the past. Suggested reasons for more severe flooding include a mix of natural factors such as increasing and more continuous rain, as well as man-made factors. In Bardiya, for example, the construction of a dam on one side of the river resulted in water flooding into villages on the other side. In Jhapa, the excavation of sand on the Indian side of the border has led to the deepening of the Mechi river, resulting in changes in the river direction, which in turn has led to flooding and the erosion of land on the Nepali side for more than a decade, as community members highlight: 'We have had incidence[s] of land erosion since 2051 B.S. [2004]. The river changes its course and erodes the land regularly.' (FGD with female beneficiaries (child allowance), Jhapa).

5.1.2 Vulnerability to natural hazards

There were mixed responses as to who is most affected by the flooding. Key informant interviewees working in the development sector usually pointed out that the people who are vulnerable from day-to-day such as older people, pregnant women, women with small children, single women and people with disabilities are the most vulnerable when floods occur because it is difficult for them to get away as quickly as others and hence they are more prone to drowning or being swept away. Respondents also noted that there is a constant fear that their children may drown or fall into ditches and drainage channels.

However, after the occurrence of floods, study respondents say that those who are the most affected are those who live on public land near river banks. This is common among households of lower socioeconomic status in Bardiya and Rautahat. In Bardiya, despite the government permanently relocating households to safer places, those relocated still build additional houses near the river banks in order to increase their landholdings and therefore continue to be affected by the flooding each year. Flooding also affects tea estates and paddy fields in Ihapa. While these are owned by rich landlords, sharecroppers are also highly affected, as the loss of land means that they are forced to find alternative ways to pay these landlords, often through taking out loans and falling into debt.

There was also the opinion expressed by community members that emergencies could affect anyone and that they do not differentiate between any particular group. In particular, it was noted that even people who are better off can suffer considerable losses and, because they are largely not targeted during emergency responses, are often left destitute in the long term.

5.1.3 Effects of natural hazards

Floods have wide-ranging direct and indirect effects on communities. Both temporary and permanent displacement was a feature of the floods, with reports of people living on roads or by dams for two weeks in Bardiya and Rautahat, while in Jhapa, people took refuge in higher places. Problems with mobility and movement were also frequently mentioned, alongside limited availability of public transport or a rise in transport costs (with it more than doubling in some cases). Destruction of infrastructure including houses, roads, bridges and schools was also mentioned by respondents, with some schools reportedly remaining closed for some time. Loss of services such as drinking water and sanitation were also mentioned and there were problems with the availability of food, as well as rising food prices.

Puffed rice costs Rs 20 for 500 grams in normal times, but when floods come, they charge Rs 50. Similarly, the autorickshaw would charge us Rs 100 for taking us to the market when the normal rate is Rs 20. Everything becomes expensive.

- FGD with male non-beneficiaries, Bardiya

People also suffered losses of crops, livestock and productive assets. In Jhapa, in particular, erosion of agricultural land was identified as a significant challenge for families who live off sharecropping, leaving people with no alternative but to seek loans. Family members also get sick frequently, and in some cases death was reported as one of the effects of the flooding in all the three sites.

Yes, it creates many problems for us. Floods come and water runs inside our house. We have to be prepared to move anywhere, any time. If the water starts to erode the land again, I think I will run away at this moment as well. – IDI with female beneficiaries (child allowance), Jhapa

During last year's monsoon season, we had crops worth 12 men's planting work. But the paddy seedling was taken away by the river one day before we could harvest it.

– FGD with female beneficiaries (child allowance), Jhapa

Coping mechanisms in emergency situations During the floods, many of those affected sought help from relatives who were living on higher ground or elsewhere, with single women in particular mentioning going back to their parental homes. There was a general agreement, however, that this was a short-term measure and that they would relatively quickly become a burden on others. How long will people help others? It might be one day or two days, but after that even they [the neighbours] will not be able help the people. It is difficult for them to provide food and shelter to other people for a long time. – FGD with female beneficiaries (single women's allowance), Rautahat

There are many challenges, such as having to stay in other people's houses, to cook in one place and sleep in another place, they [other people who give support, such as neighbours] shout and misbehave with us because of these conditions, basically because of my physical condition [as well]. Our own relatives also become strangers at that time. So we feel very unwanted. – FGD with female beneficiaries (single women's allowance), Bardiya

Taking loans to meet immediate recovery needs was a common coping strategy for dealing with the effects of flooding. People generally took loans from their relatives. For smaller loans, there is no collateral required and no interest imposed. As such, being SSA recipients does not affect this creditworthiness. However, for larger ones, which are generally for the reconstruction of damaged houses and the treatment of sick family members, larger amounts are borrowed and usually incur a high interest rate - 36%was mentioned by a single women's allowance beneficiary in Rautahat. In this case as well, people do not take loans from bank or formal institutions but from landlords.

Communities helping each other, especially when no outside help is available, is another coping mechanism. Such assistance mostly took the form of rescuing older people and children, helping relocate household goods and providing food and shelter. However, given that even those offering assistance are in a desperate situation, there is also an inherent understanding that any such help will be only for a limited period of time. Additionally, while self-help among community members seemed to work well in some cases, in others it does not: People from another village, they help each other, but not here. They prefer to go to work rather than help people. – FGD with female beneficiaries (child allowance), Bardiya

People here are happy watching other people in trouble but will not help. People here are jealous of each other. Therefore, we have to help ourselves – FGD with female beneficiaries (senior citizens' allowance), Bardiya

Other coping mechanisms reported related to emergency preparedness, such as putting important documents in plastic bags, storing food items in high places or in plastic bins, and keeping cattle in higher areas: 'We will observe and manage ourselves by keeping household goods and cattle in areas that are higher up.' (FGD with SSA beneficiaries, Bardiya).

5.2 Existing emergency responses

5.2.1 New roles and responsibilities at the municipal and ward levels

Government officials at the district, municipal and ward levels are in a process of transition. Both the recent changes brought forward in the 2017 DRRM Act and the process of devolution through the federal system, which involves changes in the distribution of roles and responsibilities, means that there is a degree of uncertainty about where the roles and responsibilities sit for disaster response.

Within districts, the DRRM Act has allocated emergency response to the DAO-based DDMC and other aspects of emergency response (mitigation, preparedness, rehabilitation) to the local government. Building on the changes under the DRRM Act, the National Disaster Risk Reduction Management Policy has set out and allocated responsibilities to provincial, district, municipality, rural municipality and ward-level actors. For example, in each municipality, there should be a disaster response committee under the chairmanship of the mayor, with all local ward chairs as members. This applies to both the rural and urban municipalities. However, service providers in our case studies reported that they were still coming to terms with the new system. Many officials were not clear about where one role's responsibility ends and another role's starts. Moreover, the Act does not mention how the municipal-level committees and their work will be financed. As such, service providers were struggling with the practical aspect of emergency response.

We have that [disaster response committee] at the district level, and even in some cases at the ward level. There is a committee to look after disaster response. However, due to a lack of resources, we are not able to undertake pre- and post-disaster responses. – KII 1

If there was a big flood tomorrow, I couldn't wait for the District Administration Office to start working. They are our people and we have to start doing what we can. – KII 8

Officials in the three case study areas were at different stages of implementing disaster response mechanisms that align with the new federal system.

As part of the disaster response committee in Jhapa, the Red Cross is training newly elected political representatives in the municipalities and helping in the formation of the municipal-level management committees across the district. They have allocated responsibilities for different clusters at different levels to transition the old system into the new political structure.

We have already updated to the new system. There is a cluster approach, where out of nine clusters only four are limited to the district level and there are five clusters at the local level. – KII 10.

In Gulariya municipality (Bardiya), there is a municipal-level disaster management committee consisting of 30 members, including the Mayor and Deputy Mayor. They are in charge of allocating funds for emergency response. In Chandrapur municipality in Rautahat, the newly formed municipal-level committee had only had two meetings and was working on the formation of ward- and village-level committees.

Since both Jhapa and Bardiya have a history of facing recurring floods, there are other local non-traditional/communal committees for emergency response at the village level. In Bardiya, among the Tharu community, there is the *talu*, a messenger who carries early warnings from different sources to the community. The *talu* also disseminates other information to the community, such as details of meetings. This person is paid 'in-kind' (generally through crops such as rice and maize) by every household of the community on an annual basis.

Ward-level committees for emergency response were to follow the new structure with the municipal-level committees. However, with the new structure not yet implemented, they have been working within the old structure instead. In Bardiya, the ward-level committee at the local level was set up by the DDMC, with help from the Red Cross and Practical Action, after the 2017 flood. This committee consists of different areas of responsibility: first aid, relocation and early warning messaging. They are all volunteers who have been trained by the Red Cross. In Jhapa, there were no similar groups for emergency response in the two areas in which we conducted research. However, KIIs inform us that there are such groups in other municipalities. In Mechinagar in Jhapa, the Red Cross has formed community groups to collect grain from households each month. This grain is sold once a year by the group and the money is kept in a revolving fund for emergency response in the community. In Rautahat, we did not come across any of these of local response groups.

Besides emergency response, the local-level volunteer groups have also helped in data collection, assuring inclusion (in the beneficiary listing) and access (to relief materials) for their area.

5.2.2 Contingency planning and funding

In terms of contingency planning, the district DRR plan is the most important overarching plan. The DDMCs in all three case study areas produce a DRR plan at the start of each fiscal year. The plan outlines the course of action and the actors to be involved in emergency relief work. It also outlines coordination with the public and private sector, including banks, transportation companies and business associations. It does not, however, provide clarity on funding mechanisms. Even when they are members of the committee and attend DDMC meetings, they report difficulty in finding out what allocation of resources they might receive from the DDMC. According to study respondents, the district DRR plans are implemented with funding from the district disaster management fund. This is a rolling fund based at the DAO, provided and replenished by the MoHA.

In addition to the district-level funds, municipalities are setting aside their own emergency funding to use in disaster response. For example, a rural municipality in Jhapa has set aside approximately \$4,000 and is planning to keep stocks of non-food and dry food (beaten rice) items as well. The municipality is also planning to buy rescue tools such as rubber boats. In Rautahat, there is a plan to build new houses for vulnerable people who live near riverbanks to save them from recurring floods.

However, there is confusion among local actors as to whether there is a directive from central government as to what percentage of the budget is to be set aside for disaster response in each constituency. In practice, the amount is decided by the DAOs themselves depending on their budget and the probability of disaster. According to key informants, similar funds have also been set aside at the ward level in some cases.

A number of limitations in terms of institutional capacity - specifically around human resources and funding - were also discussed in relation to emergency response. Ward offices often juggle different kinds of work and decide by themselves what to prioritise. They are involved in both collecting information on affected people as well as distributing relief and looking after local storage. They can work with both the government and non-government stakeholders. While there is the disaster management committee for emergency relief in some wards, these are activated only during an emergency due to a lack of personnel. Key informants reported a lack of resources for emergency response (such as ropes, buckets,

shovels) and newly elected chairpersons and secretaries also mentioned that a lack of human resources impeded an efficient response:

Respondent: We had a disaster management committee at the ward office. We distributed relief in close collaboration with the Red Cross. We distributed tents and other necessary materials to the community after the earthquake. The ward chairman was also the chairman of the committee, and community members were committee members. There were nine members in total. Interviewer: And is this committee only active during times of disaster? Respondent: Yes, during times of disaster the committee takes emergency relief decisions on the basis of the nature of the disaster, whether it is a flood or a fire or an earthquake. - KII 1

We have two awareness centres in this ward. One awareness centre consists of 30 members. However, we don't have enough manpower. We also do not have rescue tools and kits, but we do raise awareness about potential disasters. There is no formal channel by which we receive early warnings; we just inform the public about the probability of a disaster on the basis of past experience. – KII 2

There are only a few of us working in the ward office and we are responsible for all of these sectors – public health, women's development, community development and disaster management. There are five workers, including me, consisting of social mobilisers and an office assistant. – KII 1

Moreover, while there is provision for the allocation of funds for emergency relief, as well as mitigation and preparedness at the district and municipal level, no funds are allocated to the ward level. This means that ward-level actors have to depend on funding flows from the municipality and as such they cannot plan in advance nor can they respond to an emergency as fast as they would like to. Respondents at the ward level felt that this hindered them from taking a holistic approach when planning a disaster response, i.e. they were unable to address the whole disaster cycle – mitigation, preparedness, relief and recovery – and were able to focus only on relief.

... early planning and preparation for future disasters requires a certain budget, but the allocation within the current budget is not enough. There is always insufficient money for all kinds of work [that we might undertake]. – KII 1

We do not have a separate account at the ward level. We have that at the district and municipality levels, but not the ward level. One of our main problems is that whenever we require money, we have to ask the municipality for the budget. This is one reason why we are not planning any disaster management programmes at the ward level. – KII 1

5.2.3 Early warning systems

Early warning systems appear to be fairly well developed in Bardiya and Jhapa, but less developed and functional in Rautahat. In both Bardiya and Jhapa, the 2017 flood washed away the water-level measurement station set up by the Department of Hydrology and Meteorology. However, with funding from donors (Red Cross in Jhapa and Practical Action in Bardiya), a new system to measure rainfall in different catchment areas has been set up. It can provide early warning four hours before a flood actually occurs in its catchment area. According to study respondents, there is also relatively good coordination between these stations and the emergency operation centre housed at the local DAO. Hence, if the water level in a catchment area starts to rise, information is disseminated through a network linking the district Department of Hydrology and Meteorology office, the DAO, the district telecommunication office, the police, a community early warning task force and the two telecommunication systems (NTC and NCELL). The emergency operation centre and the DAO then use their own communication channels to disseminate information at the local level. In both Jhapa and Bardiya, information is disseminated by a volunteer community early warning task force through SMS and community visits, as well as by the security forces and through public announcements made by the DAO or the municipality.

Interviews with local people showed that this early warning system is working fairly well and local people are aware of the procedures that they should follow when early warning information comes. Key informants also noted a significant improvement in their ability to reduce both the death toll and the loss of property during the 2017 flood due to this system. However, as noted above, Rautahat does not have an early warning system.

Interviewer: Does anybody give you early warnings about floods? Respondent 3: Yes. Interviewer: How do you get that information? Respondent 3: We have a team here. They get a phone call when the river water starts to rise. Interviewer: Who is in the team? Respondent 3: They are from Practical Action. Respondent 4: We also get messages from NTC and NCELL [two telecommunications systems in Nepal]. Respondent 2: The siren also rings. Interviewer: So the team comes and informs every house? Respondent 2: We know flooding is coming when the siren rings. It rings. three times. When the first siren rings, we become aware [of the danger] and when it rings for a second time, we put our belongings in safe places. When it rings for a third time, we run to a safe place. - FGD with male beneficiaries (child allowance), Bardiya

5.2.4 Distribution of emergency response in the 2017 floods

Cash and material transfers were the main emergency responses to floods in all three study sites. In response to the 2017 flood, there were three categories of cash transfer: the first category consisted of Rs 2,100 per person as a food allowance, to last for two months directly after the flood. According to key informants, the amount was set based on the assumption that Rs 70 per day per person is the minimum required for food. This transfer was 'universal' or 'blanket' in the sense that recipients received the amount even if they did not have a citizenship certificate. It was distributed in cash from police stations, in the presence of a monitoring committee consisting of local elected representatives, former members of civil society groups such as the ward citizen forums, Red Cross staff and ward secretaries. Our study found that almost all the households in the affected areas had received this allowance.

The second category of transfer consisted of Rs 25,000 – Rs 10,000 for food and Rs 15,000 for clothes – provided by the MoHA. This was targeted at people whose houses had been classified as badly damaged by the flood. The following quote describes how the cash was transferred to the community:

The District Disaster Management Committee provided money to the municipality office. The municipality office sent the money through a bank, which was withdrawn as cash and then delivered to the public at the police station, due to security considerations. We first distributed the Rs 2,100 (\$21) per person to all victims falling under both categories. Later, the Rs 25,000 (\$250) cash was given to the households whose homes were totally destroyed, informing them that the money was to support the reconstruction of their houses. – KII 6

The third category of transfer, and also the most controversial one according to our key informants, was in support of rebuilding houses. GoN had announced the distribution of Rs 1 lakh (Rs 100,000) to each of the most affected households, to be given in two instalments, with the second instalment given after the fulfilment of conditions on how the money is to be spent (see interview quote below). Our study revealed several challenges with this transfer and only a few households in all of the affected areas, according to study respondents, had received this transfer at the time of research.

The government provided money for the reconstruction of destroyed houses in three instalments. First, they provided Rs 50,000 (\$500). They need to be a resident of the ward and their property must be in the same ward to be eligible for that money. They need proof of this. There are very few who are there having migrated from somewhere else and don't own their property.

– IDI with male non-beneficiary (living with disability), Bardiya

Non-cash support or material transfers included tents, logs for construction, kitchen utensils, a 'dignity pack' (consisting of sanitary pads and soap) and daily consumables and other small assets such as toothpaste, torches, water purifiers, storage bins, mosquito nets, clothes and blankets. At the start of the emergency, the government wanted to implement a 'one door' policy. According to this policy, all national and international NGOs, and any other actors, either from organisations or informal groups (such as student groups), who wanted to help the flood victims needed to inform the DAO and work in the areas suggested by the DAO of the respective district. However, this strategy was abandoned after criticisms from NGOs, civil society and informal groups who wanted to work independently. As a result, all stakeholders involved in the emergency response, including the Red Cross, the local partner NGOs of UN agencies and student groups, distributed whatever they had in stock at the time of the emergency rather than providing a combined package.

Respondents also mentioned that there were free medical check-ups provided in service centres established in locations where people were displaced. If they could not help the patient in these centres, they would be sent to the district hospital for free treatment. There was also work to restore public infrastructure such as roads, canals and bridges.

5.2.5 Issues of targeting emergency relief

Identifying who is eligible for emergency relief is now intended to be done via the national assessment guideline (discussed above).

The targeting criteria and amount of money issued to affected households is based on an assessment of the loss incurred during flood. This is calculated using indicators mainly related to the extent of destruction to the roof of a house. Where a house has been destroyed, Rs 50,000 is available, and Rs 100,000 is given for the death of a family member.

Our study respondents noted much dissatisfaction about the way affected households were identified for emergency relief after the 2017 flood.

First, due to a lack of expertise, it was reported that assessments were carried out in an ad hoc manner. For example, according to key informants, in Bardiya the cluster-specific detailed assessment was done without doing the multi-cluster initial rapid assessment first (even though this is not mandatory and is instead based on available information and updates). Further to this, the assessment categorised houses that do not have roofs as being the most affected, making them eligible to receive the transfer in support of rebuilding houses. However, respondents said that since the response came late, people had already repaired their roofs and as such were judged ineligible for the transfer, which was deemed unfair - particularly as for many repairing their roofs had meant taking on debt.

The people who assess the [damage to] houses came late. I had already fixed my roof, So I was listed as nonbeneficiary.

– IDI with male beneficiary, (disability allowance), Bardiya

Second, while damage to the roof is an important indicator, respondents thought that this was not sufficient on its own and other indicators including related loss of assets should be used in parallel for recovery support.

They gave money to households where the roof was destroyed. My roof was intact but water had got into my house and destroyed all my grain. Despite this, I was listed as less affected and did not get any money.

– FGD with female non-beneficiaries, Bardiya

Indeed, this was also mentioned as a problem in Jhapa, where river bank erosion is a recurring problem and many people lost land which was also the source of their livelihood. However, as the focus is on shelter and relief, there are no compensation guidelines or funds allocated for such cases. As a result, local government has not been able to support people affected in this manner.

Third, eligible people were excluded from receiving transfers, particularly those who had 'no voice and agency' such as single women, women whose husbands have migrated abroad, women with young children and households only composed of elderly people. When targeting was universal, mostly the case with immediate material transfers (i.e. food and non-food items) and small amounts of cash (such as the Rs 2,100 per person mentioned above), exclusion was not a problem. However, when it came to larger cash transfers, the exclusion of eligible people was reported across all case study sites.

Fourth, exclusion from emergency response seems to be more of an issue in the recovery phase than at the point of immediate relief. KIIs described common challenges such as a mismatch between people's names on the beneficiary list and on their citizenship documents. While the immediate universal/non-targeted relief does not require such documents, citizenship certificates were mandatory for long-term recovery support. It is here that a name mismatch, or indeed not having citizenship, becomes a barrier to receiving the larger amounts of emergency cash, and this was the case in all the study sites.

This [mismatches in the beneficiary listing] keeps on happening. A few people are left out of the list for various reasons. They aren't excluded from the immediate relief such as food, medicine, clothes and other emergency relief, but they are excluded from access to larger relief funds later. Sometimes, people register a name at the time of the [initial] survey that does not match their name according to their citizenship [documentation]. The immediate relief does not require citizenship [documentation], but later, larger relief funds require victims to show their citizenship [documentation] in order to receive the relief money. – KII 1

The victims need their citizenship certificate in order to get the relief. There are many people here in this VDC who do not have their citizenship certificate. There are around 1,000 to 1,500 individuals who do not have their citizenship certificate in this village. – KII 3 Fifth, given the extent of poverty in many of the communities, key informants also spoke about the demand for relief extending beyond those directly affected by the emergency. This created problems for those distributing relief in terms of distinguishing who was actually affected by the emergency and who might be seeking support due to vulnerabilities unrelated to the emergency.

The Rs 400 [nutrition] allowance causes us significant difficulties even though it is not a big amount. Our role is to prepare documents for it, but we always have a huge number of people apply for it in the hope of getting it for their children. Taking this into consideration, if we were to say that people can receive the Rs 20,000 allowance then almost all people will come and say that they are needy [and try to claim this grant]. – KII 1

6 The potential of using SSA schemes to support flood response

To assess the potential of using the SSA system to support emergency response efforts in the context of floods, a number of factors need to be considered. International evidence on shockresponsive social protection indicates that key considerations in such an assessment include:

- Relevant targeting criteria: SSA schemes need to already be targeting the households who are affected by the emergency (Bastagli and Holmes, 2014).
- Scale of existing coverage: SSA schemes should be operating at a scale which covers a significant proportion of the flood-affected population (OPM, 2017).
- Appropriateness of type and value of benefit: as the SSA schemes deliver in cash, the potential use of cash in emergencies should have been assessed and be seen as an appropriate benefit-type to transfer in the context of flood relief. Consideration of the value of the benefit to meet its intended objectives is vital.
- Timeliness of response: it is necessary to identify when the best time to provide emergency response to households is, as well as considering coordination with the response from other actors (Smith, 2015) – e.g. is immediate response or medium- to long-term recovery most appropriate? Is the SSA system capable of delivering cash during or soon after a flood?

- Information, communication and availability of, and access to, grievance mechanisms: if SSA schemes are going to be used as part of an emergency response, this can create confusion between regular scheme benefits and emergency responses (OPM, 2017). Beneficiaries should have access to information about this, and access to grievance and redress mechanisms (OPM, 2017).
- Acceptability in the community of using SSAs as emergency response: it is important to understand community perceptions of potentially using SSA schemes in emergency response, and identifying ways to mitigate any potential negative effects in the community (Holmes and Costella, 2017).
- Institutional coordination and implications of the new federal system: Coordination with existing emergency response actors is important to avoid duplication and assess the value of using SSA schemes in an emergency response as part of the wider response efforts (Smith, 2015).

In the sub-sections that follow, we use the above issues to guide our assessment of the 'readiness' of the SSA schemes to support flood-response interventions. We look at relevant lessons and experiences from providing emergency relief and any challenges encountered in the case studies, and discuss the ways in which using the SSA schemes may support emergency response in the future, using data analysed from the NHRVS and qualitative data analysis from the case studies.

6.1 Targeting and scale of coverage

If considering using SSA schemes as part of the emergency response to floods, there should be overlap between those who are eligible for receiving SSAs and those affected by the shock, so as to provide response to the population in need.

As such, we first ask to what extent would the SSA schemes reach the flood-affected population based on *existing coverage*? And second, understanding that there is not full coverage by the existing schemes (due to a variety of exclusion issues discussed below), we ask to what extent would the SSA schemes reach the flood-affected populations based on existing *eligibility criteria*?

6.1.1 Evidence from the NRHVS

We used the NHRVS data from the first wave in 2016 (World Bank, 2017) to examine how many households reporting a shock caused by floods were receiving one of the five SSAs. The NHRVS data from 2016 asked respondents about shocks over the two years prior to the survey. As floods were only experienced by a small sample of households, we have additionally considered drought shocks to enable clearer conclusions to be drawn on the potential of SSAs to cover shock-affected populations from climatic shocks.

How many people affected by floods would be covered if SSA schemes were used to deliver assistance?

Tables 5 and 6 show the percentage of the population who live in households reported to be in receipt of SSAs. The assumption is that, in an emergency, all household members would be seen to be in need of coverage alongside the existing recipient of an SSA (see further discussion below from the qualitative evidence on individual attribution and use of SSA income that may affect the effectiveness of that assumption in practice).

The results in Table 5 demonstrate that the small sample makes firm estimates of coverage by SSAs for those experiencing flood shocks uncertain when using the NHRVS data. We see large confidence intervals around the population estimates for coverage for each individual SSA. For instance, the point estimate for coverage for the largest SSA for senior citizens – 12.1% – is within

Table 5Population in households affected byshocks and receiving an SSA – flood shocks

Social Allowance	% population living in households where individuals are receiving	95% confidence intervals	
Senior Citizens' Allowance standard error	12.1% 0.03321	4.4%	19.7%
Single Women's Allowance standard error	10.8% 0.01882	6.5%	15.2%
Child Under 5 Allowance standard error	1.4% 0.0076594	-0.4%	3.1%
Disability Allowance standard error	2.9% 0.01277	0.0%	5.9%
Cumu	lative Totals		
Any of four Allowances standard error	25.1% 0.0301	18.2%	32.1%
More than one Allowance standard error	7.4% 0.02581	1.4%	13.3%

Table 6Population in households affected byshocks and receiving an SSA – drought shocks

Social Allowance	% population living in households where individuals are receiving	cor i	95% Ifidence ntervals
Senior Citizens' Allowance standard error	14.8% 0.01249	11.9%	17.6%
Single Women's Allowance standard error	10.6% 0.01047	8.2%	15.2%
Child Under 5 Allowance standard error	2.5% 0.00682	1.0%	4.1%
Disability Allowance standard error	1.5% 0.0026	0.9%	2.1%
Cumu	lative Totals		
Any of four Allowances standard error	26.7% 0.01668	22.9%	30.6%
More than one Allowance standard error	6.0% 0.01228	3.1%	8.8%

Note: Survey samples are 969 in flood-affected households and 5,904 in drought affected households.

NHRVS data for endangered ethnicity allowance recipients had too small a sample to be considered alongside the other SSAs. Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017) a confidence interval of between 4.4% and 19.7%. Even when we consider the cumulative totals of the population covered by any of these four SSAs – a point estimate of 25.1% – we see that this in fact could be between 18.2% and 32.1%.

Does using 'drought' as a shock help us understand the potential of using SSAs to respond to these kind of shocks?

Table 6 shows the same results for households that report experiencing a drought shock, and benefits from a much larger sample in the NHRVS. It can thus demonstrate more clearly the level of coverage that could arise from a shock experienced by a larger proportion of the population – such as the monsoon floods in 2017. The total population covered by households in which any SSA is received is 26.7% (with 95% confidence intervals at bounds of 22.9% and 30.6%). This is helpful to confirm a crude approximate finding that the proportion of shock-affected populations who could be covered in a response through SSA receipt would be around one-quarter of the population.¹⁰

It should be noted that there are large uncertainties as to whether NHRVS is capturing SSA receipt fully, which relates to our second question: to what extent would the SSAs reach the flood-affected populations based on existing eligibility criteria?

How far does take-up of SSAs affect coverage of shock-affected populations?

When we compare the populations entitled to SSAs using data on age, caste, location and other characteristics that determine eligibility (e.g. holding a disability card or being married – as appropriate for each SSA scheme's eligibility criteria), there are large discrepancies across SSA schemes in the NHRVS. We see an effective 'zero' receipt for the endangered ethnicity allowance (just one observation) and around 29% of eligible children under five receiving the child grant. Other SSAs are present in the survey at take-up rates of around 70%. This leads us to explore what coverage of shock-affected populations would occur if take-up rates were higher. We have no easy or reliable way to measure take-up at rates below 100%, and thus use the 100% take-up assumption (i.e. all those who are entitled to SSAs receive them). There are two other assumptions that follow in our 100% approach to estimating full take-up. First, that entitlement to the senior citizens' allowance will cover older single women who would be entitled to the single women's allowance in the absence of the senior citizens' allowance. Second, we see a considerable proportion of children receiving the child grant who are five and six years old, i.e. older than true entitlement age. We include these existing cases of 'inclusion error' in our estimates of 100% take-up, but make no attempt to further estimate scaled up levels of 'inclusion error' in the simulated entitled population.

Tables 7 and 8 show the results from this simulation of 100% take-up of SSAs for the same populations reporting flood and drought shocks as shown previously in Tables 5 and 6.

Table 7Population in households affected byshocks with full take-up of SSAs – flood shocks

Social Allowance	% population living in households where individuals are receiving	95% confidence Intervals	
Senior Citizens standard error	16.3% 0.0408	6.9%	25.8%
Single Women standard error	12.1% 0.0169	8.2%	16.0%
Child Under 5 standard error	4.7% 0.0147	1.3%	8.1%
Disabled standard error	2.9% 0.0096	0.7%	5.2%
Endangered Ethnicity standard error	1.1% 0.0110	-1.5%	3.6%
Cumulative Totals			
Any of five SSAs standard error	30.9% 0.0444	20.6%	41.1%
More than one SSA standard error	14.7% 0.0443	4.5%	24.9%

10 The tables in Annex 2 provide the population covered by SSAs from the whole NHRVS sample of non-metropolitan Nepal in 2016.

Table 8Population in households affected byshocks with full take-up of SSAs – drought shocks

Social Allowance	% population living in households where individuals are receiving	95% confidence intervals	
Senior Citizens standard error	19.9% 0.0144	16.6%	23.2%
Single Women standard error	12.8% 0.0105	10.4%	15.2%
Child Under 5 standard error	9.4% 0.0189	5.1%	13.8%
Disabled standard error	2.1% 0.0035	1.3%	2.9%
Endangered Ethnicity standard error	0.1% 0.0009	-0.1%	0.3%
Cumulative Totals			
Any of five SSAs standard error	35.2% 0.0205	30.4%	39.9%
More than one SSA standard error	13.2% 0.0135	10.1%	16.3%

Note: Survey samples are 969 in flood-affected households and 5,904 in drought affected households. Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017)

Tables 7 and 8 give us an appreciation of the upper bound of potential coverage of shockaffected populations under current rules for SSA entitlement. We see that the endangered ethnicity SSA is now included, but its inclusion results in a small additional but uncertain level of coverage - around 1% for flood and 0.1% for droughtaffected populations, which does not allow us to say confidently that they are greater than zero). However, the added population from 100% takeup of the child grant is considerable, alongside full take-up of the senior citizens' and single women's SSAs. The results suggest that floodaffected population coverage would rise to 31% (but with large 95% confidence interval bounds), while coverage of drought-affected populations would rise to 35% (with five percentage point upper and lower bounds around that).¹¹

In summary, this simulation of 100% take-up of SSAs makes the potential coverage move upwards from a quarter of the population as seen in Tables 5 and 6 to nearer one-third.

What evidence is there of coverage of the areas affected by 2017 monsoon floods?

Our quantitative estimates of coverage using the 2016 NHRVS data suffer from the fact that large-scale incidence of flood shock is not observed from retrospective data on shocks that occurred in 2014 to 2016. We have used drought as a complement to flood shock to make more generalisable findings on the coverage of shock-affected populations, but this still leaves the nagging question of what coverage would have been in place for 2017 monsoon floods if we had NHRVS data for this point in time. A more precise answer to that question would be possible if geographically granular data on flood incidence in 2017 was available to merge into the 2016 survey data. That exercise would give us 'coverage' of the NHRVS survey sample for the actual shock in 2017. Of course, the sampling frame for the NHRVS would not cover all of the geographically small areas that experienced the flood, but the sample would be of sufficient size to make more robust estimates of coverage. However, no such geographically granular data on flood incidence (e.g. at ward level) is available. To give a more approximate estimate of coverage, we can identify districts covered by the 2016 NHRVS data where 2017 monsoon floods were known to have occurred. This gives us 14 districts for a large sample of 11,700 observations from NHRVS and we show coverage using the 100% take-up assumption for those districts in Table 9.

Table 9 shows that, in total, 27% of the population in the districts affected by the 2017 monsoon floods live in households where SSAs would be in payment under the 100% take-up assumption. This should be interpreted as an upper-bound estimate to take forward assumptions regarding using SSAs to respond to flood shocks in the future with the current SSA schemes in place. Of course, as SSA entitlement grows as the schemes are expanded to larger populations (such

¹¹ We provide estimates for the full NHRVS sample in Annex 2 for reference.

Table 9Population in households in districtsaffected by the 2017 monsoon floods with full take-up of SSAs

Social Allowance	% Population living in households where individuals are receiving	95% confidence Intervals	
Senior Citizens standard error	14.5% 0.0101	12.1%	16.8%
Single Women standard error	9.3% 0.0075	7.5%	11.0%
Child Under 5 standard error	5.4% 0.0069	3.8%	7.0%
Disabled standard error	1.2% 0.0020	0.7%	1.7%
Endangered Ethnicity standard error	1.4% 0.0057	0.1%	2.7%
Cumulative Totals			
Any of five SSAs standard error	27.2% 0.0144	23.9%	30.5%
More than one SSA standard error	9.3% 0.0091	7.2%	11.4%

Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017) Note: Survey sample 11,790

as the expansion of the child grant), the estimate will change. This expansion of entitlement is now planned for the child grant, with the incremental introduction of entitlement for all children under five, i.e. universal entitlement solely based on age. The expansion will roll out at the district level according to Human Development Index scores, with those districts with the lowest score having earlier roll-out. The link between the Human Development Index and the risk of flood or other covariant risk occurring within those districts will thus determine the future coverage of shocks through SSA schemes.

How many people affected by floods would be covered if SSA beneficiary lists were expanded (through horizontal expansion)?

One approach that was put in place after the 2015 Ghorka earthquake was to enlarge 'one-off' entitlement to SSAs to all households with children under five in selected earthquake-affected districts.

Here, we adapt the previous simulation based on 100% take-up of existing SSAs in the 14 floodaffected districts (Table 9) to show the additional coverage obtained if entitlement to a one-off 'flood shock response' was extended to all those aged 60 and over and aged less than five. The endangered ethnicity and disability SSAs are not changed in this simulation but we repeat 100% entitlement assumption shown in Table 9. In other words, we add two new entitlements to a one-off cash transfer:

- To all those aged 60 and over who have no entitlement to senior citizens' or single women's SSAs.
- To all children under five who have no entitlement to child grant.

The resulting coverage of the population reflects both the number of individuals of those ages, and their presence in households. For the 'flood-affected' population considered in Table 9 (based on the 14 districts affected by the 2017 monsoon floods):

- An additional 4.9% of the population are individuals aged 60 and over who would receive a horizontal extension of SSA.
- An additional 6.6% of the population are children under five who would receive a horizontal extension of SSA.

The combined result of this extension of coverage is that all households that contain people in these age groups would receive the combination of their original SSAs and the horizontal expansion. The household populations covered purely by the resulting demographic targeting for these age groups are:

- Population in households that have members aged under five (and none aged 60 or over): 23.7%.
- Population in households that have members aged 60 and over (and none aged 0–4 (inclusive)): 21.3%.
- Population in households that have both members aged 60 and over and members under five: 12.4%.

Together these populations add up to 57.4%, a clear majority of households, even without additionally

considering those populations covered by the disability and endangered ethnicity SSAs.

A couple of caveats should be borne in mind. Our estimates are based on 100% 'take-up' by these newly entitled populations. While take-up rates could probably increase as a result of the horizontal expansion using a 'simpler' purely demographic entitlement based on age, we have no ability to predict a realistic take-up rate. Additionally, we have not adjusted estimates of new populations covered by the horizontal extension to exclude those who do not have citizen cards, birth certificates or other essential documentation. All people, of any status, are included in the horizontal extension purely based on their age. It is thus important to appreciate that this is very much an 'upper bound' assessment of potential coverage based on assumptions that may be difficult to implement fully with the current capacity and administrative constraints discussed throughout this report.

Table 10 shows the results for potential coverage with the combination of existing SSAs and horizontal extension to all aged over 60 and children under five. The results are shown for the same 14 districts as shown in Table 9, showing consistency in the potential coverage for the same populations.

The results of horizontal expansion based on age are clear: large increases in coverage, with overall coverage of the population rising to around 60%, compared to the 27% shown in Table 9 for the same assumptions on take-up. But the level of duplicate entitlements also rises very sharply to 31% of the population living in households where more than one payment would be received. This is over half of those covered compared to a third with no horizontal expansion. This illustrates the differential impact of employing such an approach with the division of the affected population between those who receive no help from this source (40%), those who receive one allowance (29%) and those who receive two or more (31%). One assumption would be to ignore potential inequities that result from differential treatment because the duplication relates to those who have characteristics that are seen as vulnerable due to their age, and duplication reflects household size and thus need. But a sizeable proportion of these duplicate entitlements arise from couples who are aged 60 or over (around 40% of those over 60 who would benefit from

Table 10Population in households in districtsaffected by 2017 monsoon floods with full take-up ofSSAs and horizontal extension to all aged 60 and overand children under five

Social Allowance	% Population living in households where individuals are receiving	con Ir	95% fidence ntervals
Senior Citizens standard error	14.5% 0.0101	12.1%	16.8%
Single Women standard error	9.3% 0.0075	7.5%	11.0%
Child Under 5 standard error	5.4% 0.0069	3.8%	7.0%
Disabled standard error	1.2% 0.0020	0.7%	1.7%
Endangered Ethnicity standard error	1.4% 0.0057	0.1%	2.7%
Horizontal Extension U5 standard error	30.7% 0.011	28.2%	33.2%
Horizontal Extension 60+ standard error	18.8% 0.011	16.3%	21.3%
Cumulative Totals			
Any SSA &/or Horizontal Extension standard error	59.9% 0.0118	57.2%	62.6%
More than one SSA/Extensionstandard error	n 31.4% 0.0113	28.8%	34.0%

Note: Survey sample 11,790.

Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017)

horizontal expansion are couples). If this approach is to be considered more fully, it will be important to understand how demographic selection is taking place, with potential expansion potentially benefiting populations who may not fit the original assumptions about their individual age-related vulnerability. But overall, the expansion to all children aged under five has the biggest effect on coverage overall, and larger families are probably associated with households with lower levels of income. Given these factors, more research is needed on the relationship between household composition, inter-generational co-residence and underlying assumptions on targeting and coverage.

6.1.2 Evidence from the qualitative data from case study areas

In relation to the first question we asked in the quantitative data analysis – to what extent would SSA schemes reach the flood-affected population based on existing coverage – we found that the qualitative responses support the quantitative findings.

The majority of respondents stated that there would be challenges using the SSA beneficiary list to provide emergency flood relief. The main concern identified is that the list of SSA beneficiaries would not necessarily match those affected by the floods, and therefore a large proportion of flood-affected people not receive the same response. As such, any use of the SSA schemes would seem well placed to complement a broader coordinated response in the context of flood relief activities.

Many other households will be deprived of their right to get the disaster relief if it is done according to the SSA list. For example, if there are 100 households that are the victims of the disaster and the relief is distributed according to the SSA list, only around 20 to 50 households will receive relief. The others will not get relief, even if they need it. We have problems distributing relief equally among the victims if there is not enough money or materials to distribute it to all [who need it]. – KII 2

In my view we should not combine allowances with relief ... Many people whose houses are destroyed are not old aged people. Many old aged people could be living in safe place, so this will not be good. In past years, after the flood we visited the [affected areas] and found young people remaining on the bank of the river while old aged people were far from the river, so giving relief to [old aged people] brings many problems. In my view, this is not a good thing. – KII 8 We also explored through the qualitative data the reasons for exclusion from the SSA schemes exists, with respondents reported varying reasons for exclusion.

According to study respondents, there are a significant number of senior citizens in all three case study areas who are otherwise eligible to receive an allowance, but do not have citizenship. This is most common for men who migrated from India at a very early age and for women involved in marriage migration. Despite knowing that they are eligible by age, local-level authorities are unable to help them in getting SSAs.

Some people do not have documents. In the case of single women, some don't have their citizenship [documentation], or the citizenship [documentation] of her husband at the time of his death. For those people, it will be difficult to receive an allowance. We face these kinds of problems. – KII 14

Respondent: Approximately 100 people [here] are deprived of their SSA, even though they are eligible. These people do not have citizenship [documentation] for many reasons, such as their parents were unable to provide them with it ... In the case of elderly people, many are not receiving their old age allowance due to not having citizenship [documentation]. For the child allowance; people are unable to receive it as they have not had their birth registered.

Interviewer: How common is this problem? Respondent: There are lots of people missing their citizenship [documentation] and thus deprived of their right to receive an allowance.

– KII 2

Other reasons for not accessing the SSA schemes reported across all three districts include incorrect documentation (and the difficulties associated with getting the correct documentation), a lack of knowledge of the schemes and challenges with applying for the disability allowance in particular (see also Holmes et al., 2018).

Interviewer: Do you think there are people here not getting SSAs that they are eligible for?

Respondent: Yes, there are such people. There are people who do not have their citizenship card. There are also people who do not know that they have to register their marriage, and there are people who have not registered their children's birth. This is because of lack of awareness of these requirements among the people. They do not get their SSA, even if they are old or single women, because they do not have the required documents.

Interviewer: What sort of people are excluded due to this lack of awareness in Rautahat?

Respondent: Those who do not know the importance of the documents face exclusion in general. They are mainly poor and marginalised people.

– KII 12

In the case of disability, there are a lot of problems. If people don't have hands, then they cannot work, yet are not getting any allowances. Meanwhile, others have a card they are not entitled to and they are receiving the allowances. – KII 11

6.2 Appropriateness of type and value of transfer

We found differences in opinion on the suitability of cash versus material transfers during emergencies. On the one hand, local NGOs felt pressure from international donors to give cash despite being unsure if it was the best form of support and feeling that it might not lead to the intended outcomes. Some were also of the opinion that the cash could easily be misused. On the other hand, those who favoured cash noted that it reduces transportation challenges and people could allocate the cash to their most pressing needs. Some innovative approaches for using cash were mentioned in Jhapa, where, for rebuilding toilets, the Red Cross gave cash assistance cheques which could only be used in a designated hardware shop. Those supporting cash transfers noted that material transfers were also problematic, with some beneficiaries selling the materials given.

In terms of the logistics of cash versus materials, responses were mixed. Some KII respondents saw the delivery of cash as posing security challenges, largely related to fear of theft. Others saw more challenges associated with the distribution of non-cash materials, noting that it incurred high transport costs and it allowed for potential malpractice, such as supplying expired food and beneficiaries selling on the materials given at cheaper prices in the market.

A key question here is also the value of the cash transfer to be delivered. As discussed above, the Rs 2,100 distributed universally to those affected by the floods was calculated on the basis of food needs per person over a period of two months. The value of cash is linked to its objective and when it is delivered (e.g. immediate response, intermediate recovery, etc.).

A key consideration in setting the value of a transfer if using SSA schemes is the fact that SSAs are delivered to individuals within a household. Going back to Tables 5–8 above, the analysis of the 2016 NHRVS data shows the duplication of SSAs at the household level when individuals receiving SSAs co-reside in the same household. In the analysis of existing coverage, and if coverage of shock-affected populations is determined by SSA receipt, there will be 7.4% of the population who live in households where there is more than one SSA in payment (95 % confidence interval bounds suggest this could be as low as 1.4% or as high as 13.3%).

Similarly, in the simulation of 100% take-up of SSAs, the problem of duplication also grows – roughly half of the flood-affected population live in households with more than one SSA in payment, and similarly the proportion for drought-affected populations is one-third.

This is an important finding when considering the overall efficiency of using SSAs to reach shock-affected populations, as the effects of assuming full take-up to extend coverage will also be seen in the actual extension of entitlement being implemented and planned for SSA schemes. The greater the proportion of the population that becomes entitled to categorical SSAs determined by demographic criteria, the larger the number of households that contain more than one beneficiary, and thus the population covered by multiple SSAs grows. This has implications for equity and fairness, as discussed in the qualitative data below.

This potential for duplication also raises applied questions about whether payments should be made at the individual level regardless of household composition and size, or whether payments should be amended to reflect the household population alongside the individual beneficiaries. Of course, the presence of integrated registries and administrative data across the SSA schemes would allow for adjustment in such cases, but the underlying problems of fairness raised in our qualitative data could be significant: using SSA schemes would not only give between 25-30% of the population a different and particular shock response, but within that population, the generosity of payment at the household level would vary.

6.3 Timely delivery – payments and delivery mechanisms

Key considerations here are around *when* would be the best time to provide emergency response to households through the SSA system. This needs to take into consideration coordination with other actors providing emergency response. Important questions include whether the SSA scheme response would be better as an immediate response or in support of medium- to long-term recovery objectives, and whether or not the SSA system is capable of delivering cash during or soon after an emergency.

The respondents in our case studies reported that they were generally satisfied with the timing of the initial emergency response, recalling how, at the time when they were most in need, even a small help was very useful and that the timely responses in terms of rescue, immediate shelter and relief were in fact a big help for them. Such respondents were often those also receiving a regular SSA from the government.

They [the NRS2,100 and NRS25,000 grants] were a big support for us at that time.

- FGD with female beneficiaries

(senior citizens' allowance), Bardiya

Similarly, key informants at the ward level thought that within the limited budget available to them, the distribution of immediate relief reached the affected households relatively effectively. The study respondents who received material transfers were also generally satisfied with their quality; they found the plastic storage bins to be the most useful items and were using them to store food, clothes and children's books in preparation for this year's flood. In some places, people were satisfied with the support of the army and police in distributing the relief.

Respondent 5: The army and police help a lot. Respondent 4: During the emergency, there were 300 soldiers ... The army put barricades on the river using sacks. – FGD with male beneficiaries (senior citizens' allowance), Bardiya

However, challenges were also identified, with some respondents noting that the emergency relief was not timely. Likely related to this was the fact that the early warning system seems to be less effective in Rautahat, where we did not find evidence of SMS messaging and community volunteers helping in rescue and relocation. This was not found to be an issue in Bardiya and Jhapa, where even after the station for measuring the rise of water levels, a part of the early warning system, was destroyed in the flood, the system as a whole appeared still to be working.

Challenges were also identified by the response team, who reported physical and logistical difficulties in delivering the relief alongside concerns for their own safety in context of chaos and near riots at distribution points (with the result that they sometimes had to leave without distributing relief). Political and social pressures were also reported. It is hard to provide immediate relief as we have to take care of our personal safety. It is difficult to react when the water level is up and everything is inundated. – KII 3.

The distribution of the SSAs is approximately every four months (see below on delivery times in practice). The timing of the transfers are aimed at the national Hindu festival (Dashain), and then the following four months after. In all three case study areas, some of the allowances are being transferred through banks. However, this is not universal across all wards, and at the time of writing, the distribution of SSA cash is still limited to a few municipalities. As such, in other wards the payments are still distributed by hand from the ward office. In Rautahat, the banking system is operational in Chandrapur municipality from wards 1 to 10 (KII 13). In Jhapa and Bardiya, delivery is through the bank for some, but others reported receiving the allowance from the VDC office, VDC officials in the village or the ward office. One KII noted that, since the banking system started, the beneficiaries have to renew their card every year (KII 16).

Most respondents report that in previous years the delivery of SSAs was not affected by the floods or other emergencies, as they received the allowance before (and after) the flood on the four-month schedule.¹² However, it is noteworthy that there are a number of challenges discussed by KIIs and SSA beneficiaries around the registration process and delivery/receipt of the allowances (also see section 3.2 above), which may have implications in the future if the SSA payment system is to be used as part of a flood response. For example, the registration process for new beneficiaries (for the senior citizens', single women's or child grant allowances), takes approximately four to six months until receipt of first payment (KII 13; KII 14; FGD with female beneficiaries (child grant), Rautahat). In the case of the disability allowance, this could potentially take longer, because of the assessment process (KII 13, see also Holmes et al., 2018).

To receive the allowance, beneficiaries must take their SSA card (and pass book) to the bank or to the ward officials in the place of delivery. For people who are physically unable to collect the money in person (e.g. due to their disability or old age), they either need to be brought by other people to receive the money or delegate someone to do it on their behalf via a referral from a ward chairperson and the municipality office (KII 14).

Some respondents noted difficulties in receiving the allowance due to transport costs or the physical difficulties of travelling. Overall, many respondents reported that the closer the payment point is to their house, the easier it is for them to collect the allowance. The elderly in particular report that they preferred getting the money when it was delivered directly to their home so that they don't have to travel (e.g. to the bank) to receive it (KII 14; KII 16).

The bus costs Rs 100. There are other expenses for children, up to Rs 500 when we go there to receive the money. As you know, children are stubborn. You have to purchase whatever they want, whether it is food or toys. So, our expenses are almost equal to the money we receive. – FGD with female beneficiaries (child grant), Rautahat.

Travelling to receive the allowance could potentially be even more problematic in times of floods, given the difficulties in moving around and increases in costs of transport:

During a flood, it is difficult to go from one place to another. Given this, it is pretty difficult to go to a different place to collect money. – KII 15

There will be muddy and swampy roads after a flood, so it is difficult for us to walk on such roads to go and collect SSA money. – IDI with male beneficiary (senior citizens' allowance), Bardiya

¹² A few respondents mentioned there were delays, but were unsure whether it was because of floods or the elections. One FGD participant reported Rs 500 had been deducted from the beneficiaries' allowance (FGD with male beneficiaries (endangered ethnicities/child grant allowances), Jhapa).

Other issues discussed include challenges in accessing the banking system, such as learning the application process for those who are not educated or experienced with the system, as well as technical errors or the need to change banks. While these difficulties can be overcome, respondents indicated that they are troublesome for some beneficiaries:

R5: In order to open a bank account, it costs 100 rupees.

R6: Even an educated person can make mistakes filling in the form, so we have to give it to the person [at the bank] to fill it in and pay them to do so.

R3: An uneducated person cannot fill in the form. If they ask other people for help, they will say that they are busy and will only agree to help if they are given money.

R4: When I was there to apply for an allowance card, the people there where helping Nepalese [non-Madheshi] people apply for their cards, but they were not even asking the Madheshi people if they needed help. They did not even listen to us. It takes five days, or 15 days, or even a month to receive a card. The government staff there, including the chairperson, belittle us. R6: The chairperson there doesn't recognise us.

– FGD with male beneficiaries (senior citizens' allowance), Rautahat

However, other respondents report that the availability of banking options in the ward can reduce waiting time for the beneficiaries:

Interviewer: How long has it been since you started to receive [your allowance] from the bank? Respondent: It has been a year. Earlier, I received it from the VDC. Interviewer: How do you feel about the change? Which method is better for you? **Respondent:** I prefer the present banking system. It was crowded in the earlier system.

- IDI with female beneficiary (single women's allowance), Rautahat

They collected all my documents and they were sent for further processing. It took a year to receive the allowance for the first time.

- IDI with male beneficiary (senior citizens' allowance), Rautahat

6.3.1 When should (and can) transfers be delivered?

In terms of the timeliness of SSAs, while most respondents say they receive it three times a year (every four months), many also report that the money comes late, and some report that it can be quite unpredictable (other recent research on SSAs in Nepal also finds this, as discussed in section 3 above). This could be a key impediment to using SSAs in flood response, as timing is crucial in emergency response interventions.

We should get 400 per month, but they postponed it for five to six months. – FGDs with female beneficiaries (single women's allowance), Rautahat.

Interviewer: Does the budget from the municipality ever get held up? Respondent: Yes, sometimes that happens; it sometimes comes early as well. There is no certainty to it. – KII 3

Beneficiaries' preferences were mixed in terms of the most beneficial time to receive SSAs as a part of an emergency response, with some mentioning that monthly payments would be good (especially because, as they noted, they are not used to receiving a lump sum of money and might spend it 'extravagantly') and others preferring a single emergency payment.

6.4 Information, communication and grievance mechanisms

If SSA schemes are going to be used as part of an emergency response, there is the potential for confusion between regular SSA benefits and emergency response benefits. Beneficiaries and other community members will need access to information about the use of SSA schemes in responses, and access to grievance and redress mechanisms.

The ward office is formally responsible for grievance handling. Respondents noted that SSA beneficiaries with grievances tend to go to the ward office or seek out ward officials and local representatives directly. Some people also reported going to the bank directly if they had payment problems. Some would go as individuals, whereas others reported that they would go in a group.

Service providers were of the opinion that, since members of the ward office are in the locality, people often go to them with complaints. A newly elected ward chair was, for instance, aware of problems of access to, and exclusion from, government services including disaster relief and understood that it is his mandate to improve this, as the second quote shows.

They [people who want to complain] first go to the people who collected the names in the beneficiary list. After that, they complain to the ward office directly as it is the office in charge of grievance handling at the local level. – KII 3 (with social mobiliser, Bardiya)

Now, political leaders are elected to address all the local problems at the ward level. I have seen that people go to the ward office and complain to the ward members. However, only those who have linkages at the district or top level are able to solve their problem quickly. The voiceless are still deprived of their right to so many services provided by the government. So, we, the public elected officials, are responsible for dealing with these problems. We have to help them solve their problems.

– KII 12 (with elected ward Chairman, Ward 5, Bardiya)

A KII in Rautahat mentioned that in one area, they might get three or four such complaints in a month (KII 13). The types of complaints or grievances received include: beneficiaries asking when they will receive money if there is a delay, why they have not received money in the bank, complaints that the money is too little, and problems if a beneficiary is unable to go themselves to pick up the allowance. Examples of other complaints include:

People complain to us that it costs them further money to travel to the bank, and also that it is a lengthy process for them. They say that the system is becoming more difficult and complex now. – KII 16

People complain if they have to return because they haven't got their documents. – KII 5

Other respondents mentioned that they are unsure of who to go to make a complaint, and others simply said that they do not complain. Another issue which was raised was that there may be personal or family problems. While this was not discussed widely across the respondents, it does indicate that personal problems are not often discussed publicly, highlighting the need to pay attention to intra-household issues in relation to SSA schemes as they are important, but not always visible:

Our neighbour's mother receives senior citizen allowance. She uses all of the money and never gives any to her son. Her son says that if she does not give him money, then he will not perform her death rituals. In fact, he is supposed to give money to her but instead he is asking for money from the mother. There is no peace for her whether she gives him the money or not. – KII 13

6.5 Social acceptability: community perceptions of using SSAs in emergency response

It is important to understand community perceptions of potentially using SSA schemes in emergency response, and to identify ways to mitigate any potential negative effects in the community or household.

Respondents reported that the allowance – or a top-up – would be of use to them (and their families) in times of crisis. Some respondents already use their SSA money during floods, spending it on clothes, medicine, food and household needs, often sharing it within the family.

Yes. I give [the allowance] to my sons when they don't have money. That is quite useful in times of crisis. I am a father to them, so I love them very much. We also sometimes have to ask for loans from others. – IDI with, male beneficiary (senior

citizens' allowance), Rautahat

During a flood, there is a high chance of getting sick, so if we get some top-up [of the allowance], we can then use it on medication and nutritious food for children. – FGD with female beneficiaries (single women's allowance), Bardiya

Yes, we used [the allowance money]. Our children were asking for food when we were staying away. I bought some in an emergency.

– FGD with female beneficiaries (child allowance), Bardiya

I received the SSA money and handed it over to my son and daughter in-law to use during an emergency. Yes, it comes in useful. I don't store it in my money bag. – FGD with female beneficiaries (senior citizens' allowance), Bardiya.

Despite this, in relation to both emergency response and the potential use of SSA schemes in emergency response, community perceptions about fairness and universalism came up frequently. The following responses highlight the importance of considering these factors in the use of SSA schemes as part of a well-coordinated emergency response, as well as considering the implications of individual versus household transfers as discussed in the section above.

Respondents expressed dissatisfaction with the targeting of emergency response when it was not universal, with complaints about a lack of transparency, perceived nepotism, fraud, misuse of relief, exclusionary processes and the politicisation of relief. Others felt that many people were excluded from the relief effort and it was unclear why:

People from other places received buckets, tarpaulins and the medicine that people put in water to drink. The people of Motiyahi never get anything, whether rich or poor. Even the Dalit people received nothing. – FGD with male beneficiaries (senior citizens' allowance), Bardiya

People of higher socioeconomic status, as well as those of high caste, also felt left out as the emergency response prioritised the low castes and poorer people:

R2: We didn't get any kind of support.
R4: We heard that relief materials had come for us, but it was then said that it was not for upper caste people, it was for lower caste people.
R3: I asked other people and they were saying it was for Dalit people only.
FGD with female non-beneficiaries, Jhapa

While beneficiaries reported that SSAs could be beneficial in helping them during floods, the majority of respondents emphasised that if SSA beneficiaries received a flood-response allowance, and others in the community did not receive the same response at the same time, tensions would result. This highlights the importance of communication efforts to outline the scope of the programme and eligibility criteria to minimise tensions: Households without a member receiving SSA will be left out and this may create misunderstandings in the community. This is a community where people fight for a handful of rice during a crisis, so not getting the relief will create more chaos in the community for sure. Many people will be left out of getting the relief that they are supposed to get. – KII 1

Moreover, a few respondents also noted that intra-household tensions may also occur, because the SSAs (with the exception of the child grant, which is more family oriented) are targeted specifically at individuals. While many beneficiaries reported sharing the benefit with family members, a few beneficiaries indicated that they are protective of their allowance income for their own personal use – even in an emergency, they may not be willing to share it with the household:

In some households, the children do not look after their parents in their old age. So, if the relief is added to the SSA of the parents, there may be conflict among the family members. The parent might not give that money to the children and the children might fight with their parents for the money. They might say, 'this money is not only for you, it is for us as well' and the parent will say in return, 'the government has given it to me, not to you'. – KII 12, Bardiya

6.6 Institutional coordination and implications of the new federal system

6.6.1 Institutional coordination

Many KIIs discussed the challenges associated with limited coordination during emergencies rendering disaster response ad hoc, and highlighted both vertical and horizontal challenges. As mentioned previously, at the district level, institutions work under the cluster system which brings together the government, donors, civil society and other public and private stakeholders. They are all members of the DDMC and come together when clusters are activated during an emergency by the Chief District Officer who chairs the DDMC.

The DAO is the coordinating body in the DDMC for emergency response activities in all three study sites. However, the DAO works through its own funding from the central government. Despite government and nongovernment entities working together in the DDMC, there is no coordination in funding: the DDMC members do not pool their funds for the committee to be able to see what resources it has and make decisions for resource allocation to the clusters based on that. This makes the cluster response ad hoc.

In some areas, this is further complicated by additional actors working in disaster response. In Bardiya, there were other public actors such as student groups, mothers' groups and individuals who helped with cash and noncash items during emergency responses. GoN attempted to implement the 'one door policy', whereby all other public actors like this were supposed to coordinate their activities with the DAO during emergencies. However, according to study respondents, due to a lack of personnel in the DAO and the unwillingness of these actors to collaborate and pool resources, the one door policy did not succeed. Hence such actors went to places where they already had social connections or which were easily accessible. This led to an uneven distribution of emergency assistance. Unlike in Bardiya, we did not find evidence of a large number of such actors in Ihapa and Rautahat

Additionally, while the new DRRM Act envisions a tiered system of disaster response, consisting of provincial, municipal and local DRR committees, it does not set out funding flows to these different tiers. While it is important for these bodies to coordinate, it will be impossible to do so until there is clarity on how resources will be allocated to these bodies.

6.6.2 Implications of new governance structure

The most important implication of the new structure in terms of disaster response is the shift in responsibilities from the DAO to the newly elected local federal structures. Where response activities were carried out by the DAO in the past, they are now distributed across both the DAO and the municipalities. While ambiguity exists both in the policy documents and in actors' understanding of them, rescue and emergency relief activities will still be coordinated by the DDMC committee housed at the DAO, while municipalities and wards will do mitigation, preparedness and recovery activities as part of their regular work. As an example of this, we found that the DAO is building river dams in Bardiva and Rautahat as a mitigation activity. However, in all three districts, study respondents were of the opinion that whoever takes the lead in an emergency response, be it the DAO or the municipality, should be involved in emergency relief and rescue.

The change in structure at the ward level has also led to a shift in responsibilities. The work of the ward chair – which included providing people with references for marriage certificates and citizenship, as well as recordkeeping – has now shifted to the ward secretary. The current elected chair (a political representative) is now responsible for broader policy and programme decisions, while office management is done by the ward secretary (a bureaucrat).

Before, the ward chairman was supposed to look after matters such as recommendation letters for citizenship, birth registration, marriage registration, transfers in land ownership, etc. Now, the ward secretary takes care of those matters, as well as keeping records for everyday activities, income, expenditure and budget. – KII 1 (ward secretary, wards 11 and 12, Gulariya, Bardiya)

Civil society groups at the local level report that their work on awareness raising both for emergency response and for social protection has so far been hampered by the new structure. While the earlier system allocated a budget for awareness raising through the VDC and ward office, there is currently no such allocation. Previously, wards typically contained several civil society groups (such as the ward citizen forums and civic awareness centres) that disseminated information about the SSA schemes, helped people prepare documents, informed them about when SSAs were being distributed at the ward office or the bank, helped people collect them and monitored their distribution. Under the new federal system, local elected representatives are supposed to be taking over this work, and the increased number of representatives at the local level should bring about more positive changes.¹³ However, these bodies (i.e. ward citizen forum, civic awareness centre) have not yet been formally recognised by the federal system and so cannot perform their usual functions.

We used to help them get information regarding allowances, such as the time and venue to receive payment. In the past, when there were no elected officials [responsible for this], we went to every community to inform them about the allowance.

– KII 23 (ex-member of a ward citizen forum, Kathmandu)

Some key informants expressed hope for better services at the ward level with the new arrangement consisting of both elected political leaders as well as civil servants and civil society:

Now, every ward has public representatives – two male and two female, plus one ward chairperson. If we give responsibilities to this group, they can really make a difference in community. It will be really good for people and the development of villages. – KII 3 (with social mobiliser, Rautahat)

¹³ Personal communication with a representative of UNICEF.

Reactions, however, from both SSA beneficiaries and non-beneficiaries were mixed, with some respondents seeing the new structures as providing better access, while others were less hopeful:

Interviewer: Now that there are elected officials in the ward, do you notice any difference in accessing services? Respondent: I think it will be easier for us to go and ask for help when we need it. – FGD with female non-beneficiaries, Rautahat.

R6: All people are the same, so nothing will change. Elected people will do their own development rather than the development of local people or the village.R4: Now, it is getting worse. Development

work has stopped in the village.R1: Nothing will be good.R3: During the election, they will say that we will do this for you, that for you, but once they win the election they will never come back.

- FGD with female beneficiaries (Child allowance), Rautahat

sLack of experience was also seen by some respondents as a challenge: since the federal system has only been in place for a short time and officials may not have previous experience of disaster response, some key informants noted that it will take time for officials to be able to understand the unique challenges posed by specific areas and specific disasters, and to plan responses accordingly.

7 Key findings and way forward

7.1 Summary of key findings

Flooding in Nepal is a predictable seasonal occurrence, but the scale and intensity of flooding varies. 2017 saw huge numbers of people severely affected by flooding, but data also showed that flooding tended to be concentrated in specific geographic areas. The 2016 NHRVS data, for example, shows that less than 5% of VDCs reported that 75% or more of the population were affected in the 2016 NHRVS data (World Bank, 2017). As such, the impacts of 'topographical' floods and landslides are more concentrated, compared to other natural hazards such as earthquakes, which affect much higher population shares (2016 NHRVS data shows that earthquakes affected over 75% of the population in the 40% of communities reporting an earthquake (World Bank, 2017)).

There are many factors affecting the incidence, severity and impacts of flooding. In our case studies, for example, flooding in Mechinagar (Jhapa) resulted from the river changing its course and flowing onto the land which then became submerged, leading to land erosion. In Chandrapur (Rautahat) and Gulariya (Bardiya), flooding was caused by heavy rainfall leading to the overflowing of the dam. While the severity of the flooding tends to vary year by year, the seasonal nature of the risk of floods is fairly predictable. There is, however, growing concern that extreme precipitation associated with climate change is contributing to increased flooding and landslides, and communities in the case studies largely recalled experiencing larger and more severe floods and more hailstorms now than in the past, highlighting the urgency of addressing the risks that people in flood-prone areas face.

The impacts of floods are manifold. Community members report problems with immediate displacement, mobility and movement after the flood occurs. Flood-affected communities face limited availability of public transport and infrastructure (including houses, roads, bridges and schools) is often destroyed. Communities also face loss of services such as drinking water and sanitation, limited availability of food, as well as rising food and transport costs.

Specific groups of people are also particularly vulnerable. These include older people, pregnant women, women with small children, single women and people with disabilities, who are seen to be the most vulnerable at the time of the flood because it is difficult for them to get away as quickly as others and hence they are more prone to drowning or being swept away. Moreover, these groups also tend to face higher risks relating to protection issues in the contexts of shocks, as well as challenges relating to accessing information and relief services. Women and girls in particular also face additional carerelated responsibilities. Geographic location and livelihood sources also render some households more vulnerable than others. Study respondents identified those who are the most affected as those who live on public land near river banks. This is common among households of lower socioeconomic status in Bardiya and Rautahat, with people also suffering losses of crops, livestock and productive assets. Flooding also affects tea estates and paddy fields in Jhapa. While these are owned by rich land owners, the sharecroppers are also highly affected as the loss of land means that they are forced to find alternative ways to pay their landlords, often through taking out loans and falling into debt.

In recent years, there have been initiatives to better prepare for, and respond to, floods. Many early warning systems have been established and, while the development and operationalisation of these varies from place to place, where such systems are functioning they have contributed to reducing harm and death in communities. There has also been a shift in national policy to investment in, and prioritisation of, DRM and resilience strategies across the DRM cycle. This potentially opens up space for increased cross-sectoral collaboration, including a role for SSAs. There have also been substantial efforts, supported by development partners, to better understand the risks and vulnerability profiles of communities at the local level (currently a significant knowledge gap), and to use this data to pre-plan and pre-position interventions before a flood disaster happens.

However, recent changes in roles and responsibilities due to federalisation, together with the new DRR and Management Act, have created a degree of confusion in the implementation of emergency response at the local level. Officials in the three case study sites were at different stages in implementing decentralised disaster response mechanisms that align with the new federal system. In theory, the cluster system is in place, which combines the sectors and actors for a coordinated emergency response, and therefore also provides an opportunity for potential coordination with SSA mechanisms.

Our case studies shed light on the provision of flood response in the aftermath of the 2017 floods. We find that study respondents reported that immediate relief to flood-affected households - an emergency cash payment to households in communities affected by floods - was distributed well in terms of timeliness and coverage. The payment was intended as a food allowance and was calculated to last for two months directly after the flood as a one-time payment, which was based on the assumption that Rs 70 per day per person would be the minimum required for food. This was a universal distribution and recipients did not have to show any documentation (e.g. a citizenship certificate) to receive it. However, further response and recovery efforts faced challenges, particularly associated with both

targeting and documentation requirements. For example, the main targeting criteria for the later emergency response used damage to houses to identify people eligible for the cash benefit beyond the immediate universal response. This was seen to leave many people in need of support out of the response, while they would have been captured had additional criteria been used. Those who did not have access to the required documentation (such as citizenship documents) were also excluded.

7.1.1 What role can SSA schemes play in flood response?

Given Nepal's vulnerability to recurring floods, and the strengths and weaknesses in the current DRRM Act approach to responding to the needs of those affected, this research points to a number of ways in which the SSA scheme can be used in a short-term future flood response. We know from international experience, and evidence from the 2015 earthquakes, that SSA schemes could potentially play an important role in emergency response in Nepal. A number of advantages were discussed by national level respondents in this study about the opportunities for using SSA schemes as part of a flood-response approach. Utilising existing government administrative structures to support targeting and/or channel payments could reduce delays and increase the accuracy of targeting during emergency response and recovery. The provision of cash as an emergency response mechanism is also increasingly seen as an appropriate intervention in the majority of contexts. Indeed, at the local level, SSA beneficiaries also supported the idea that SSAs - or a potential top-up - would be of use to them (and their families) in times of crisis. Some respondents already use their SSA money during floods, spending it on clothes, medicine, food and household needs, and often sharing it within the family.

However, our research has also shown that there are reasons to be cautious about how the SSA system could be used in short-term flood response. Our analysis of the quantitative and the qualitative data identifies four key areas which require further consideration of the role of SSAs in flood response.

Coverage

The first is coverage of the flood-affected population. While the SSA system as a whole covers almost three million people, our analysis of 2016 NHRVS data shows that the proportion of flood-affected populations who are currently in receipt of an SSA would be *around one-quarter of the affected population*. If actual coverage of the SSA schemes was 100% of the eligible population, this would increase to approximately 30%. However, currently there are exclusion errors within the SSA schemes – estimations suggest takeup is around 70% for most of the allowances, and significantly less for the disability allowance.

There are two key implications of these findings: firstly, that the proportion of the flood-affected population who would be reached by an SSA cash response is relatively low at 25%; and, secondly, that even within this 25% coverage rate, there are people who are in theory eligible for receiving SSAs but are in practice excluded from doing so. In the qualitative case study sites, a number of factors were identified as excluding people from taking up the SSAs. For instance, senior citizens who do not have citizenship were identified as victims of exclusion in all three districts. This is most common for men who migrated from India at a very early age and for women involved in marriage migration. Other reasons for not accessing the SSA schemes reported across all three districts include incorrect documentation (and the difficulties associated with getting the correct documentation), a lack of knowledge of the SSA schemes, and challenges related to applying for the disability allowance in particular. These findings are in line with other recent research which finds similar levels and experiences of exclusion from the SSA schemes.

Given that SSA coverage would only reach approximately one-quarter to one-third¹⁴ (with 100% take-up) of the flood-affected population highlights two key policy implications which are discussed further below. The first is around horizontal expansion, and the second is the importance of coordinating with existing emergency response actors.

Targeting

The second key challenge identified is targeting the flood-affected population. If we are to assume that the SSA system is being used to deliver emergency response in the context of a flood, how would the affected population be identified?

At present, there is no automatic way to know whether an SSA household is affected by the flood, or likely to be affected by a flood. All community members in the geographic location affected by floods are included in a manual assessment carried out by the emergency relief team. The emergency response to the 2017 floods used a three-tiered targeting mechanism. In the immediate response, targeting was 'universal' in specific geographic locations affected by the floods. The following assessment criteria for targeting were based on levels of destruction to houses. However, there was much discontent with this focus on physical household infrastructure at the expense of criteria which would address other needs.

A future response would need to consider how using the SSA beneficiary list in flood response could support and improve existing emergency targeting mechanisms at particular points of immediate response or recovery. For example, there is some indication that the most vulnerable groups may be unfairly excluded from the later response, due to lack of 'voice' or lack of documentation. While this requires more data, it does suggest a potential role for the SSA in closing this coverage gap. However, evidence also indicates that those who are excluded from emergency response due to lack of correct documentation are also likely to be excluded from the SSAs for the same reason. What we do find from the qualitative data is that targeting SSA beneficiaries with a floodresponse intervention but not providing a similar response to others who have been affected in the community could create tensions in the community. As such, this makes coordination of a possible SSA intervention as part of a broader relief/flood-response effort within a community even more vital, as well as ensuring clear communication to the community about the aim and eligibility of a programme.

¹⁴ One-third coverage if 100% take-up of the SSAs of the eligible population.

Box 1 below presents a number of recent examples of international experiences using social protection beneficiary lists in emergency response situations. The implications of these for Nepal's context are discussed in the next section below.

Box 1 International experiences of using social protection beneficiary lists to target emergency response

In the Philippines, after the Haiyan typhoon, top-ups were given to beneficiaries from the Pantawid Pamilyang Pilipino Program ('4P') as emergency support. The programme targets extremely poor households with children, and the top-up scheme was targeted to beneficiaries living in five of the 171 municipalities worst affected by the disaster, using the 4P payment structure. The scheme reached 527,770 individuals in 105,554 households. The list of beneficiaries required revalidation as displaced households had to be tracked down, to inform beneficiaries of the scheme, and to identify carers for newly orphaned children (Smith et al., 2017). The top-up was reported to have enabled the programme to 'reach large parts of the affected population more quickly than would otherwise have been possible' (Smith et al., 2017: 55). Moreover, the rationale for using the 4P was that other humanitarian actors would fill in the gaps – the setting up of a parallel system here was done in coordination with other humanitarian responses to reach a larger proportion of those affected (ibid.).

Automatic inclusion of social protection beneficiaries into emergency response: In 2016/2017, extreme weather events in Malawi saw 6.7 million people (40% of the population) experiencing severe food insecurity, triggering a humanitarian response. For the first time, beneficiaries of the national cash transfer - targeted at extremely poor households - were automatically included in the emergency response. No other part of the cash transfer system was used as it was not able to provide quick or reliable delivery. There was consideration of topping-up the normal cash transfer benefit level. However, due to the different transfer amounts that beneficiaries receive (based on e.g. the number of household members, children of school age), calculating the amount required from the emergency assistance on top of the normal transfer was deemed too operationally difficult – especially as the emergency amount fluctuated each month. As such, it was decided that the full emergency value would be given to the cash transfer beneficiaries (Holmes and Costella, 2017). Reports suggest that, while this was seen as a successful and innovative initiative in reaching the poorest and most food insecure households, using these parallel systems exacerbated frustrations at the community level around cash transfer beneficiaries receiving both regular cash transfers and emergency response, especially where the emergency response allocation was used up almost entirely by cash transfer beneficiaries (ibid.). This again highlights the importance of clear communication channels and the availability of grievance mechanisms in the community to reduce potential discontent and tension (Holmes and Costella, 2017; Platzmann, 2017).

Combining geographical targeting and household targeting based on a wider population beneficiary list: In the case of Pakistan, a 'nearly' nationwide (85% of the population) proxy means test was carried out to identify households for the Benazir Income Support Programme which provides a quarterly cash transfer of \$45 (Watson et al., 2017). The proxy means test led to the establishment of the National Socio-Economic Registry, which is linked to the citizen database held by the National Database and Registration Authority through a common national identification number. The National Socio-Economic Registry has been used to identify beneficiaries for emergency response. An example of this is the Khadim-e-Punjab Imdadi Package, implemented in the Punjab province for relief from floods in 2014. The scheme was

Box 1 International experiences of using social protection beneficiary lists to target emergency response cont'd

implemented by the Provincial Disaster Management Authority and in the initial (relief) phase, the scheme provided 25,000 Pakistani rupees per family to 75,000 households. This was followed by a second phase, which included a livelihood support component and a recovery component, the value of which depended on the level of damage to the household or the size of the damaged crop. Targeting consisted firstly of a geographic identification of the affected districts using the Geographic Information System and satellite imagery, followed by a household-level targeting process to identify those eligible for compensation based on the vulnerable households identified in the National Socio-Economic Registry (Watson et al., 2017). A grievance redress mechanism was also established to reduce exclusion errors (ibid.).

Value

The third key challenge is determining an appropriate value for the cash transfer. While the value would be primarily determined by the objective, another key consideration identified by the quantitative data analysis is the issue of duplication of households receiving more than one SSA benefit. It raises questions about whether payments should be made at the individual level, regardless of household composition and size, or whether payments should be amended to reflect the household population alongside the individual beneficiaries. The qualitative data also highlighted that the possible negative effects of intra-household dynamics are also important to recognise and mitigate in future policy decisions.

Service delivery

The fourth key challenge is around capacity for service delivery. Numerous other studies have highlighted the capacity constraints at the ward level for delivering SSAs (as discussed in section 3) need to be kept in mind. The analysis in our research has found the following system components which need to be considered and strengthened in the context of using SSA schemes for shock response.

Within the current context of federalism, there is a degree of confusion around roles and responsibilities for emergency response activities. It is likely that this will take a while to iron out. Multiple funding structures are also hindering a coordinated response and, as such, implementation of disaster response remains ad hoc. Another key implication of federalism is that it has changed roles and responsibilities at the ward level for the SSA schemes. One of the areas that has not been prioritised yet is where responsibility sits for civic awareness and grievance mechanisms. The important implication here is that if SSAs are used for something other than what they were originally intended for, beneficiaries and communities need clear information about this.

Another key issue identified in the research is the distribution of cash. The roll-out of the banking system is in very different stages across the country. International evidence suggests that banking systems and e-payments are a key part of effective shock-response payments. Beneficiary respondents in this study reported mixed preferences for the banking system, but one key priority across respondents is that the closer the payment point is to their house, the easier it is for them to collect the allowance. The elderly in particular report that they preferred getting the money when it was delivered directly to their home, so that they don't have to travel (e.g. to the bank) to receive it. In the context of floods, it will be important to continue building on flexible and appropriate delivery channels, especially as travelling to receive the allowance could potentially be even more arduous during floods, given the difficulties in moving around and increases in transport costs.

7.2 Ways forward

The challenges and opportunities presented and discussed above have a number of implications for future policy on using SSAs as part of flood response. Here, we focus on three key areas for moving forward with a focus on short-term priorities.

7.2.1 Continue to invest in the SSA system to deliver on its core functions and strengthen its potential to be used as a shock-response mechanism

Evidence from around the world clearly shows that the reliable and timely delivery of social protection benefits at scale provides the foundation for using a social protection system in response to shocks. This not only enables social protection to achieve its core objectives of reducing poverty and vulnerability, which has been shown to help households in times of crises, but also allows elements of the system – such as beneficiary lists and payment delivery systems – to be used or amended to increase efficiency and effectiveness as part of an emergency response.

There are several key priorities for preparing Nepal's SSA schemes to form part of a future flood response.

Reduce errors of exclusion

Reducing errors of exclusion, for example by making registration for the SSA schemes easier (e.g. the assessment process in terms of complexity and time taken is a particular challenge for potential recipients of the disability allowance), supporting rolling enrolment to the schemes for elderly and single women and investing in awareness raising for the schemes and their eligibility criteria. Further challenges – such as people lacking documentation and citizenship rights – are often a result of complex social and political factors, which need continued policy support to be overcome.

Strengthen capacity at ward level

Another priority area would be to continue to support capacity at the ward level to deliver on their core functions within the delivery of SSA schemes – this specifically includes awareness raising and providing grievance mechanisms, as well as supporting registration processes and the delivery of benefits where the banking system is not yet operating. Given the increased demands on officials at the ward level in times of emergency, consideration should be given to training staff to deliver SSAs in the context of emergencies, if they are to be used as part of flood-response activities. The international evidence also emphasises the need to ensure that communities are aware of changes in the existing social protection programme to respond to shocks through clear communication channels, and ensuring that there is an accessible grievance mechanism to reduce exclusion and inclusion errors.

Strengthen financial infrastructure and information systems

Longer-term developments in banking and MIS also need continued support so as to streamline and optimise processes for registration and the delivery of SSAs. There is a need to ensure that the expansion of the banking system for SSA payments is accessible for SSA beneficiaries, especially those who may face mobility challenges even outside of emergency contexts (specifically the elderly and people with a disability), as mobility constraints and transport prices can be significantly heightened in an emergency.

There is also the need to continue strengthening the development of the MIS and the digitalisation of data, which is held centrally and accessible to multiple stakeholders across sectors, to avoid duplication and help build linkages with other services during both crisis and regular times. Such a system provides an enormous opportunity for improving the use of SSAs in an emergency response. Such data, if regularly updated and accessible, would support better targeting. Given existing data limitations on identifying who has experienced a shock and who is an SSA beneficiary, the use of administrative data on SSA schemes in payment would give a 'census' of beneficiaries and be more reliable. Such data, if geocoded, could also enable more precise calculations of populations affected - for instance, if linked to data on hydrological risk, climatic vulnerability or the geographical extent of a shock. Improved administrative data would also support the calculation of transfer values based on household composition.

7.2.2 Improve coordination across DRR and social protection

If the SSA system is to be used as a response to floods, it will be part of a broader emergency response. Careful consideration of the timing, targeting and objectives of the cash transfer and how these fit with other transfers and type of emergency support is important. It is vital that there is close collaboration between disaster response and SSA actors at the national and the local levels. The role of SSAs in emergency response also needs to be prepared for in advance of an emergency, so that their role is established when an emergency occurs and resources are in place to be released on preidentified triggers (see OPM, 2017). Discussions between MoFAGA, DoCR and MoHA need to be developed on this issue. SSA actors could also become active members of the cash coordination group (CCG), work closely across the cluster system activated in emergencies, and participate in other preparedness activities and information sharing. SSA actors also need to be involved in discussions around data systems and registries which are being developed by emergency actors to ensure that there is collaboration rather than duplication of efforts.

Moreover, there could also be active promotion of linking SSA beneficiaries to relevant complementary services and programmes which support resilience-building activities and recovery initiatives. Such programmes or services may include promoting resilient livelihood activities, climate-smart agriculture interventions, knowledge and skills on preparing for floods (including e.g. keeping documents safe, information on food and nutrition etc.), and protection interventions for at risk populations (particularly women and girls).

7.2.3 Using the SSA targeting list

While the evidence suggests that we need to be cautious about using SSA schemes to respond to floods, there are some important considerations to be investigated further. It is clear that the SSA schemes would not be used to replace any emergency response mechanisms, but rather that there are opportunities to explore where using the SSA targeting system (or parts of the system) could add value to, and increase the efficiency and effectiveness of, a flood-response approach.

Geographic targeting

If the SSA system is going to be used as part of a flood-response plan, it is important to know where the risk of flooding is likely to be in the future. While there is recognition that scattered data limits planning and preparedness, the UN HCT contingency planning document for the 2018 monsoon focuses on the annual hazard of flooding in seven provinces with a specific focus on highly flood-prone municipalities, rural municipalities and metropolitan locations in the Terai. The following areas were predicted to be most affected (UN HCT, 2018): Banke, Bara, Bardiya, Chitwan, Dang, Dhanusha, Ihapa, Kailali, Kanchanpur, Kapilbastu, Mohattari, Morang, Nawalparasi, Parsa, Rautahat, Rupendhi, Saptari, Sarlahi, Siraha, Sunsari, Surkhet and Udaypur.

Providing a 'top-up' or 'additional payment' to existing SSA beneficiaries after the floods as part of recovery efforts.

This option illustrates the use of the SSAs as a parallel system to emergency response, and assumes that SSA beneficiaries would be included in an immediate emergency response (e.g. in the days following a flood emergency). In addition to this, using the existing SSA beneficiary list in highly affected areas, a 'top-up' could be provided to beneficiaries in their next payment schedule which is normally about a month after the floods. This additional amount on top of their normal transfer value, would be calculated to support recovery needs of the affected population. Another option would be to provide an additional payment to the normal transfer time after the floods, to support recovery efforts sooner.

The advantage of these options is that a top-up or additional transfer would support recovery efforts. Our research has indicated that the immediate and universal emergency cash support delivered to flood-affected populations reaches those in need, and is expected to provide their basic needs for two months through the emergency response system. As such, the timing of the SSAs a bit later could support ongoing recovery efforts, especially as there is indication that the targeting criteria for the second phase often focuses on damage to infrastructure, rather than other sources of vulnerability (including damage to livelihoods, or other social sources of vulnerability), and may exclude some vulnerable groups.

However, it should also be noted that, unless a top-up or additional transfer is aligned with other emergency response interventions to floodaffected groups in a community, it risks creating tensions unless there is a sound rationale and understanding for giving SSA beneficiaries an additional intervention. Given that floods are typically geographically concentrated, palikaand ward-level data would need to be used in coordination with emergency response actors to inform the geographic locations of flood-affected populations. There is also still the risk of relatively high *inclusion* errors, but also high *exclusion* errors of non-SSA beneficiaries - both those who are eligible for the SSAs but not receiving benefits and affected by floods, and non-SSA beneficiaries who are affected by floods. When transferring benefits to individuals, the level of transfer and household composition also needs to be considered. In the absence of accessible MIS data on this at present, data would have to come from local-level ward knowledge, which could add an administrative burden at already very busy times.

Use the SSA beneficiary list to automatically include SSA beneficiaries in an emergency response – or to automatically exclude SSA beneficiaries from emergency response if the SSA system is providing a separate response (for the latter, see Slater et al., 2018).

This option sees a closer integration of the SSAs with the existing emergency response system and targeting mechanisms, and an opportunity to support and strengthen the existing national cash-based emergency response. The rationale for both of these options is that utilising the SSA beneficiary list reduces the caseload for emergency needs assessment at the local level – so only households not in receipt of SSAs would require assessment, with the potential to significantly speed up the assessment process (Slater et al., 2018).

It does mean that, in the case of *automatic inclusion*, SSA beneficiaries in flood-affected areas would automatically receive emergency assistance, possibly in both immediate response and recovery stages.

In the case of *excluding* SSA beneficiaries from emergency response by providing benefits separately through the SSA payment system (and funded outside of the emergency funding structure), this also reduces the resources needed for emergency response for this target group. However, timing is absolutely critical here. In the 2017 flood response, cash transfers to cover immediate needs were transferred just days after the floods. In the short term, it is unlikely that the SSA system could be triggered to release funds in such a short space of time. In the medium term, it could be an option to explore further but it would need significant pre-planning, financing and the development of operational procedures to be ready. For now, the initial emergency response seems to have reached the affected population effectively and provided support to meet people's basic needs. As such, a key consideration would be to use the SSA beneficiary list for later response or recovery stages.

Horizontal expansion of the SSAs to increase coverage of the flood-affected population As discussed above, expanding the criteria for the SSA targeting list would increase the coverage of people to receive a transfer through the SSA system in response to floods, up to the margins of 60% of the population. In particular, expanding the child grant to all eligible households in floodaffected districts (in the NHRVS data) and to all those aged 60 and above. Overall, the expansion to all children aged under five has the biggest effect on coverage, and it is likely that larger families are associated with households with lower monetary welfare.

Lessons from horizontal expansion can be drawn from the Emergency Cash Transfer Programme (ECTP) which expanded to cover all children under five in selected earthquakeaffected districts. A census exercise was carried out and successfully identified and registered approximately 85% of eligible beneficiaries. The registry of all children under five years old also increased birth registration rates from 48% to 94% in 11 programme districts. Despite these successes, a main limitation identified in horizontal expansion was the challenge involved in registering and enrolling a new beneficiary population in the aftermath of a shock, when implementation capacity is already under strain. As such, although the expansion under the ECTP showed proof of concept, a longer-term vision of pre-positioning expansion should be discussed, if 'scalable' social protection is envisioned as part of a broader shockresponsive social protection system in Nepal. This would include, for example, putting in place contingency funding, pre-registering the additional case load (in terms of identification, but also banking cards) so that expansion can happen rapidly.

Additional considerations

All of these options require significant coordination between emergency response actors and those who implement the SSA schemes, working together on the beneficiary list. In fact, it is often the same people responsible for the SSA schemes at the ward level who target and deliver emergency response, which may help coordination here. Close collaboration would also be required to ensure that the emergency response, if delivered through the SSA system to SSA beneficiaries, aligns with the timing and value of an emergency response by humanitarian actors.

If any part of the SSA system is used – whether it is the beneficiaries list or the delivery mechanism – ensuring awareness and appropriate levels of communication at the community level is vital. Moreover, identifying and agreeing triggers to initiate a response through the SSA system would also need to be developed.

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Annex 1 List of respondents

Reference	Position and organisation	Locality
KII 1	Ward secretary	Bardiya
KII 2	Ward chairman	Bardiya
KII 3	Social mobiliser	Bardiya
KII 4	Nepal Climate Change Support Programme (NCCSP), District Coordination Committee office	Bardiya
KII 5	WASH Officer, Save the Environment	Rautahat
KII 6	Legislative member and coordinator of Environment and Disaster Management in State Assembly	Rautahat
KII 7	Political leader	Bardiya
KII 8	Deputy mayor	Jhapa
KII 9	Local political leader	Jhapa
KII 10	District coordinator of Red Cross	Jhapa
KII 11	Coordinator of Ward Citizen Forum	Bardiya
KII 12	Elected ward member	Bardiya
KII 13	Chairperson of recently registered 'Hamro Abhiyan Nepal' (previously worked for Plan International)	Rautahat
KII 14	Social worker in ward office	Rautahat
KII 15	Chairperson of Jhapa rural municipality	Jhapa
KII 22	Ward member of ward 12, Mechinagar municipality	Jhapa
KII23	Member of Ward Citizen Forum, Mechinagar municipality	Jhapa
KII 16	Ward secretary, Dhapakhel	Lalitpur
KII 17	Member of Social Policy team, UNICEF	Kathmandu
KII 18	Disaster Resilience & Humanitarian Advisor, Office of UN resident coordinator	Kathmandu
KII 19	World Bank, Social Policy team	Kathmandu
KII 20	Emergency Specialist, EPU, UNICEF	Kathmandu
KII 21	Section Officer, Department of Civil Registration and Ministry of Federal Affairs and General Administration (Puruswottam Nepal Joint Secretary Planning, coordination and development aid cooperation section MoFALD DG, DOCR)	Kathmandu
KII 22	Roundtable with key stakeholders	Kathmandu

Focus group discussions (FGDs)
FGD with female beneficiaries (senior citizens' allowance), Bardiya
FGD with female beneficiaries (child grant), Bardiya
FGD with male beneficiaries (child grant), Rautahat
FGD with female beneficiaries (senior citizens' allowance), Rautahat
FGD with female beneficiaries (single women's allowance), Rautahat
FGD with female non-beneficiaries, Bardiya
FGD with female beneficiaries (single women's allowance), Bardiya
FGD with male beneficiaries (senior citizens' allowance), Bardiya
FGD with male beneficiaries (child grant), Bardiya
FGD with female beneficiaries (single women's allowance), Rautahat
FGD with male non-beneficiaries, Bardiya
FGD with female beneficiaries (child grant), Rautahat
FGD with female non-beneficiaries, Rautahat
FGD with female beneficiaries (child allowance), Jhapa
FGD with female beneficiaries (single women's allowance), Jhapa
FGD with male beneficiaries (endangered ethnicities and child grant), Jhapa
FGD with male non-beneficiaries, Jhapa
FGD with male beneficiaries (senior citizens' allowance), Jhapa
FGD with female beneficiaries (senior citizens' allowance), Jhapa
FGD with female non-beneficiaries, Jhapa
FGD with female non-beneficiaries, Rautahat
FGD with male beneficiaries (senior citizens' allowance), Rautahat
In-depth Interviews (IDIs)
IDI with male non-beneficiary, Bardiya
IDI with male beneficiary (senior citizens' allowance), Bardiya
IDI with female beneficiary (single women's allowance), Rautahat
IDI with male non-beneficiary (living with disability), Bardiya
IDI with male beneficiary (senior citizens' allowance), Rautahat
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Jhapa
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (child grant), Jhapa IDI with male non-beneficiary, Jhapa
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (child grant), Jhapa IDI with female beneficiary (single women's allowance), Jhapa
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (single women's allowance), Jhapa IDI with female non-beneficiary, Rautahat IDI with female non-beneficiary, Rautahat
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (single women's allowance), Jhapa IDI with male non-beneficiary, Jhapa IDI with female beneficiary (disability allowance), Jhapa IDI with male non-beneficiary, Rautahat IDI with male beneficiary (disability allowance), Bardiya
IDI with male beneficiary (senior citizens' allowance), Rautahat IDI with male beneficiary (child grant), Rautahat IDI with female beneficiary (senior citizens' allowance), Rautahat IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Bardiya IDI with female beneficiary (senior citizens' allowance), Jhapa IDI with female beneficiary (single women's allowance), Jhapa IDI with female beneficiary (single women's allowance), Jhapa IDI with female non-beneficiary, Rautahat IDI with male non-beneficiary, Rautahat IDI with male beneficiary (disability allowance), Bardiya IDI with female beneficiary (child grant) Jhapa IDI with female beneficiary (child grant) Jhapa
IDI with male beneficiary (senior citizens' allowance), RautahatIDI with male beneficiary (child grant), RautahatIDI with female beneficiary (senior citizens' allowance), RautahatIDI with female beneficiary (senior citizens' allowance), JhapaIDI with female beneficiary (senior citizens' allowance), BardiyaIDI with female beneficiary (senior citizens' allowance), BardiyaIDI with female beneficiary (senior citizens' allowance), BardiyaIDI with female beneficiary (senior citizens' allowance), JhapaIDI with female beneficiary (child grant), JhapaIDI with female beneficiary (single women's allowance), JhapaIDI with female non-beneficiary, RautahatIDI with female beneficiary (child grant) JhapaIDI with female non-beneficiary, RautahatIDI with female non-beneficiary, Rautahat

Annex 2 Quantitative data samples

Full Samples of NHRVS Survey 2016 Population Coverage by SSAs

Table A1 Population covered by SSAs,non-metropolitan Nepal 2016

Social Allowance	% population living in households where individuals are receiving	95% confidence intervals	
Senior Citizens' Allowance standard error	12.5% 0.00413	11.6%	13%
Single Women's Allowance standard error	8.3% 0.00472	7.2%	9.4%
Child Under 5 Allowance standard error	1.6% 0.00307	0.9%	2.3%
Disability Allowance standard error	1.2% 0.00206	0.7%	1.6%
Cumulative Totals			
Any of four Allowances standard error	22.4% 0.00639	21.0%	23.9%
More than one Allowance standard error	3.9% 0.00459	2.8%	4.9%

Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017)

Table A2 Population covered by full take-up of SSAs,non-metropolitan Nepal 2016

Social Allowance	% population living in households where individuals are receiving	95% confidence intervals	
Senior Citizens standard error	17.4% 0.00345	16.6%	18.2%
Single Women standard error	10.5% 0.0066	9.0%	12.0%
Child Under 5 standard error	7.0% 0.0066	5.5%	8.5%
Disabled standard error	1.7% 0.0020	1.2%	2.1%
Endangered Ethnicity standard error	0.8% 0.0031	0%	1.5%
Cumulative Totals			
Any of five SSAs standard error	31.2% 0.0091	29.1%	33.3%
More than one SSA standard error	10.6% 0.0035	9.8%	11.4%

Source: Authors' calculations from 2016 NHRVS data (World Bank, 2017)



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