



## Lessons from Typhoon Haiyan

### Supporting shelter self-recovery in the Philippines

Victoria Maynard & Elizabeth Parker



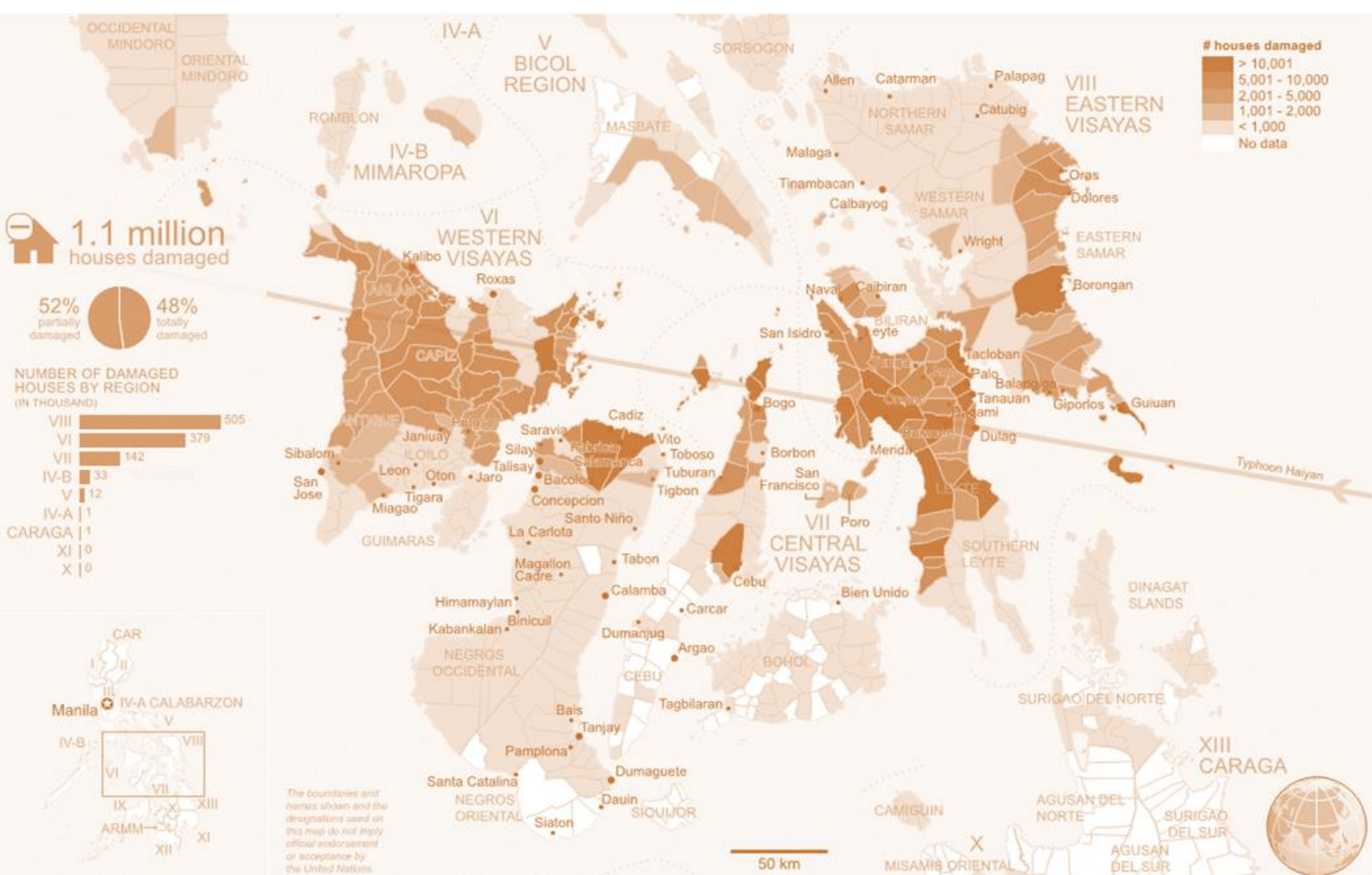
### About this report

This report was researched and authored by Victoria Maynard and Elizabeth Parker, both independent shelter researchers. The report was overseen by Jake Zarins, Associate Director Disaster Risk Reduction Response and Field Operations for Habitat for Humanity International, and Tom Newby, Head of Humanitarian for CARE International UK.

### Acknowledgements

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Photos in the report are by the contributing agencies and their staff, but are not credited to maintain anonymity. The photos are all from communities affected by and recovering from Typhoon Haiyan.



Damaged houses as of 18 Nov 2013. OCHA.

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## Executive summary



### Background, context and methodology

On 8 November 2013 super typhoon Haiyan (known locally as Yolanda) devastated the central regions of the Philippines. More than 6,000 people lost their lives, 14 million were affected and approximately four million displaced<sup>1</sup>. A total of 1,012,790 houses were damaged or destroyed by the super typhoon - 493,912 partially damaged and 518,878 totally damaged<sup>2</sup>. Within a month of the typhoon almost 80% of households had already started rebuilding their homes but around 50% said they would be unable to complete repairs without assistance<sup>3</sup>.

In March 2014 the Shelter Cluster's Strategic Operational Framework identified 'support for household self-recovery' as one of its three strategic objectives (see Box 1 for a definition of Support for Shelter Self-Recovery or SSSR). The Shelter Cluster aimed to provide shelter materials, tools, cash and technical assistance<sup>i</sup> to 500,000 households within the first year of the response<sup>4</sup>. By October 2014 approximately 160,000 households had received support for 'repairs and retrofit' (or SSSR)<sup>5</sup> while organisations had confirmed funding to support a further 80,000 households<sup>6</sup>. The majority of these programmes were completed within the first 18-36 months of the response. Collectively the six programmes included in this study supported 76,407 households or around one third of the 240,000 households assisted by agencies reporting to the Shelter Cluster during the response to super typhoon Haiyan.

The number and diversity of SSSR programmes implemented following super typhoon Haiyan provides a unique opportunity to capture lessons, challenges and best practice. This research aimed to synthesise learning from several SSSR programmes in order to improve policy and practice in future humanitarian responses. Drawing on lessons from previous research by the authors into SSSR<sup>7</sup> this study adopted a simplified evidence synthesis approach. This involved: searching for and

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<sup>i</sup> Material assistance includes construction materials, tools and support (such as the provision of equipment) for salvaging and re-use of debris; financial assistance includes cash or vouchers; technical assistance includes guidance on construction through training, house-to-house monitoring and technical advice, guidelines or mass communications.

screening potential documents for inclusion; extracting and synthesising data; reporting and review. The research was completed between November 2016 and February 2018.

Specific research questions included:

### Interventions, outputs and outcomes

1. What combinations of assistance were provided?
2. How did the programmes balance coverage, speed and cost?<sup>ii</sup>
3. What were the outputs and outcomes?

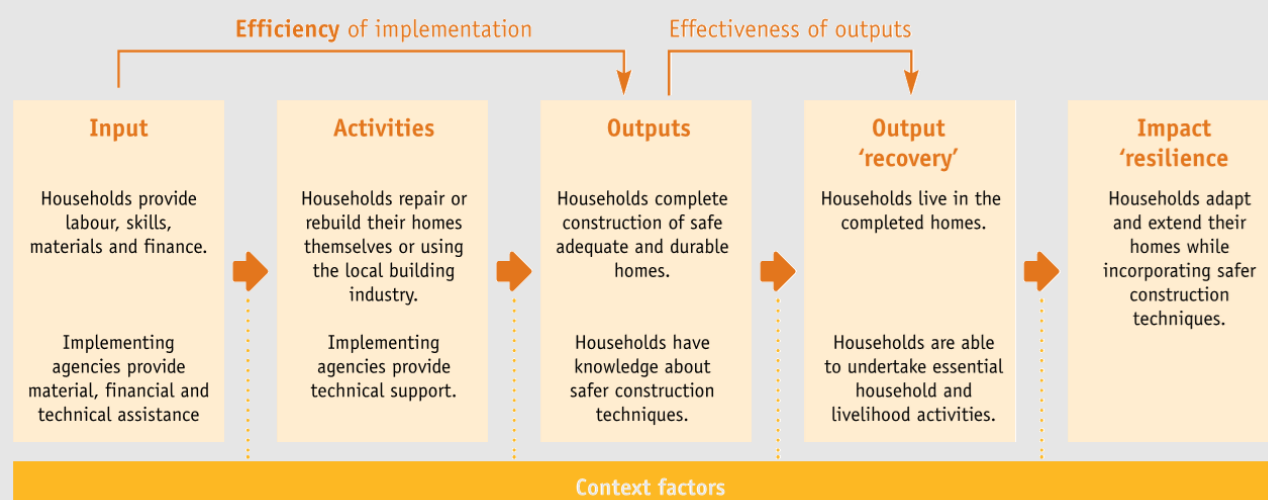
### Process of implementation

4. What were the primary contributions of households?
5. Programming: what worked well and what was not as effective?
6. Context: what factors helped or hindered implementation?

### Definition and theory of change for Support for Shelter Self-Recovery

SSSR interventions have previously been defined by the authors as 'providing one or a combination of material, financial and technical assistance, during the relief and/or recovery phase, to enable affected households to repair, build or rebuild their own shelters themselves or through using the local building industry'<sup>8</sup>. In addition CENDEP highlight that 'to be accurately described as 'self-recovery', the post-disaster shelter reconstruction process must be driven by the householder'<sup>9</sup> - with beneficiaries responsible for making key decisions such as the location, design and materials used to construct their homes.

**Figure 1: Theory of change for SSSR programmes<sup>10</sup>**



<sup>ii</sup> Material, financial and technical support should be quantified using a consistent approach which may be financial value or time committed.



## Conclusions from this study

### What combinations of assistance were provided?

All six of the interventions in this study provided material and technical assistance to households while four also provided financial support. The material assistance provided ranged from just corrugated galvanised iron (CGI) sheets to shelter kits including a combination of construction materials, fixings and tools. Financial assistance took the form of conditional cash grants and ranged from one-off grants of 3,000-10,000 Php up to phased payments of sums up to 49,500 Php depending on the level of housing damage. The technical assistance provided included: displaying or distributing build back safer materials to households; providing training of up to a day to 'shelter champions', households, communities, carpenters and the *barangay* (village or ward) Disaster Management Committee; house-to-house technical support provided by agency staff members or carpenters.

Organisations which provided financial support found that some of the cash was diverted to meet other urgent needs (such as food or healthcare). But programmes which did not provide financial support experienced delays and reduced construction quality as households still needed both to finance these other urgent needs (sometimes by selling construction materials which had been provided) and find additional funds to invest in construction. In programmes which provided fewer materials and more cash, households did not necessarily prioritise spending money on hard to purchase or expensive materials such as high quality CGI sheeting, hurricane strapping or fixings. Providing technical assistance improved the knowledge of households and communities about build back safer techniques, and the safety and durability of the shelters constructed. This was most effective when it included specific training for households and carpenters, followed up by house-to-house monitoring and technical support.

Four agencies implemented SSSR programmes in conjunction with direct-build transitional shelter or core home programmes for the most vulnerable households. The remaining two agencies provided 'top-up' assistance (in the form of additional financial or material and technical support) to households who were unable to complete their homes. Only one organisation just focussed on shelter - three implemented water, sanitation and hygiene (WASH), livelihoods or Disaster Risk Reduction (DRR) programmes in parallel to the shelter programme, one ran an 'integrated' shelter and WASH programme with parallel livelihoods and DRR programmes, while one implemented 'an integrated programme with shelter as the entry point'. Both organisations with integrated WASH and shelter programmes initially adopted 'self-recovery' approaches to the construction of toilets – but one changed to direct-build in areas with high water tables to ensure technical quality.



### How did the programmes balance coverage, speed and cost?

The six programmes included in this study ranged in:

- Coverage - from around 3,500 to over 22,500 households.
- Speed - from beginning implementation within 2 months and concluding within 12-18 to beginning implementation 12-18 months after the typhoon and completing within 24-36 months.
- Cost - from 7,500 to 38,000 Php per household. They ranged in cost per household from between 10 and 25 times the cost of emergency shelter kits, 25-65 per cent of a transitional shelter programme, and 13-33 per cent of the core home programmes.

Both agencies which implemented 'stand-alone' SSSR programmes (without transitional shelters or core homes for the most vulnerable households) relatively rapidly provided low value support to a large number of households and later introduced 'top-up' programmes for families in need of additional support. Two agencies implemented programmes which combined SSSR with transitional shelter or core homes for the most vulnerable households and integrated interventions in other sectors. These programmes assisted a similar number of households to the stand-alone programmes but at a higher cost per household and with a slower start to construction and longer duration. Two agencies implemented programmes which combined SSSR with transitional shelter or core homes for the most vulnerable households and parallel interventions in other sectors. These programmes assisted a smaller number of households, at similar cost per household to the integrated programmes, but with a slower start to construction.

### What were the outputs and outcomes?

Household-level outputs measured in the studies included: the completion rates of shelters; the size, safety and durability of shelters; and household knowledge about safer construction techniques. Typically more than 90 per cent of households had used the assistance provided to repair or rebuild their shelters at the time the programmes were evaluated. However, three agencies reported that households had tried to use the assistance to build a new larger or more robust house but this had affected their ability to complete their homes. Beneficiaries were typically positive about the size, safety and durability of the shelters constructed. Three of the programmes reported significant positive effects on household's knowledge about build back safer techniques.

Household-level outcomes measured in the studies included households': perception of safety and security; income, expenditure, assets or debts; physical and mental health; and dignity, empowerment and self-reliance. All six programmes reported positive effects on households' perception of safety and security. Five of the programmes reported reduced expenditure and/or increased disposable income and assets. Three of the programmes reported positive effects on household physical and mental health. Two of the programmes reported positive effects on household pride, dignity and self-reliance – particularly for women when they had been included in training on Build Back Safer (BBS) techniques.

The outputs and outcomes of SSSR programmes were often perceived differently by the implementing agency (often based on technical assessments) and households. For example, one agency noted that technical specialists viewed the shelters as 'complete' but households viewed them as 'incomplete' as there were still many more improvements they wanted to make. The perception of households varied depending on their needs and priorities, location (in rural or peri-urban areas), the time elapsed since the typhoon, and the support given to other households.

Community-level outcomes reported in the studies included: knowledge of BBS techniques being spread to the whole community; increased resilience to future shocks; positive economic impacts as households spent the financial assistance on purchasing materials and hiring local labour; and improved social relations, organisation and empowerment.

### **What were the primary contributions of households?**

Households made material and financial contributions such as: paying for transportation of materials; paying for skilled or unskilled labour; buying additional materials; salvaging materials from destroyed or damaged homes; and providing a storage place for materials during distribution and construction. Household contributions also included time spent: attending meetings and

training; transporting materials home from the distribution point; building their own shelters; and supervising construction and monitoring progress. All of these activities required the time of one or more family members and therefore resulted in a potential loss of income.

Very few of the documents attempted to quantify the contribution of households. However, based on data provided in those which did the financial contribution of an average household can be estimated at up to 10,000 Php for additional materials plus skilled and unskilled labour and transportation. In addition all households spent 1-2 days attending training and collecting their materials, while up to 40 per cent self-built their own shelters, and some will have provided help to other households via *bayanihan* (communal unity, work and cooperation to achieve a particular goal). This also has a financial cost in potential loss of income of 250-500 Php per day. These are significant contributions in comparison to the external support provided – which ranged from 7,500 to 38,000 Php per household.



### **Programming: what worked well and what was not as effective?**

Programme design was most effective when it was informed by feedback from communities, local partners and governments and included rapid assessment of markets and supply chains for construction materials, environmental conditions, and potential health and safety risks. Programme implementation was most effective when it was guided by a clear strategy (including an exit strategy) and included continuous monitoring to validate earlier assumptions, and working closely with communities, local partners and governments.

Flexible programming was necessary to respond to the changing context and needs of households. This included proactive measures such as allowing households to choose between direct-build or SSSR approaches, or providing households with different needs with different packages of assistance at the beginning of the programme. It also included reactive measures such as making programme adjustments based on monitoring or feedback. To adopt a flexible approach to programming agencies needed both adequate monitoring and feedback mechanisms to identify needs and the support of their colleagues in head office and donors in order to make changes.

Beneficiary selection was challenging for many agencies and the majority reported a degree of community dissatisfaction with the process. Challenges experienced included: misunderstanding



whether the role of a community committee was to establish criteria or select beneficiaries; misapplication of beneficiary selection criteria; having to implement a second round of assessment to identify beneficiaries for 'top-up' assistance; and some degree of miss-targeting (providing assistance to families who were less in need of support).

Some agencies questioned whether their SSSR programmes had provided adequate assistance to the most vulnerable households, and lack of materials or finance were the key reasons given by beneficiaries for not undertaking repairs or reconstruction. Higher levels of understanding and application of BBS techniques were achieved in programmes which provided more in depth training and/or house-to-house monitoring and technical support than those which relied on distributing or displaying BBS leaflets or posters and community-level briefings.

### **Context: what factors helped or hindered implementation?**

The main factors which hindered implementation of the programmes were: the experience and capacity of the implementing agency and its partners; disrupted supply chains and slow recovery of local businesses in some areas; and damaged infrastructure and bad weather hampering access to remote communities. Other factors which hindered implementation of the programmes were: a shortage of skilled and unskilled labour; confusion over the government's 'No Dwelling Zone' policy; the availability of suitable land with adequate tenure security; corruption or fraud; a lack of pre-positioned goods and contracts; and security concerns.



## Recommendations for policy and practice

**SSSR programmes have the potential to cost-effectively and rapidly assist a large number of households.** Depending on the households and context, as well as the mandate, capacity and funding of the assisting organisation, SSSR programmes can either: rapidly provide a relatively low value package of shelter assistance during the relief/early recovery phase, followed by monitoring and additional support depending on the level of need (in shelter or other sectors); or undertake more detailed assessment and programme design, prior to implementation of the SSSR programme in the recovery phase alongside integrated interventions in multiple sectors.

**‘Self-recovery’ does not have to mean ‘self-building’ – instead, supporting shelter self-recovery involves helping households to make and implement key decisions about their housing recovery process.** Decisions made by households include: whether or not to prioritise shelter recovery (for example over re-establishing livelihoods); whether to repair, re-build in-situ or relocate; what type of shelter assistance to receive (for example direct-build, rental support or SSSR); whether to rebuild quickly (using immediately available resources) or slowly (when time and money allow); whether or not to incorporate build back safer techniques; whether to self-build or hire labour; and which materials to salvage or buy.

**Providing a combination of material, financial and technical assistance is critical to the success of SSSR programmes.** If one of these elements is not provided then programmes are more likely to experience problems with delays or lower quality construction as households have to make up the shortfall themselves.

Material, financial and technical assistance should include:

- the provision of key materials which are expensive or difficult to source (such as hurricane strapping or high quality CGI sheets);
- cash or vouchers to both purchase construction materials and meet urgent needs;
- pre-construction training for the whole community (plus carpenters and local government) and ongoing technical support at household-level provided by agency staff members or carpenters.

**SSSR programmes should be integrated with livelihoods and WASH programmes (where it is culturally appropriate).** Households contribute significant time and resources to SSSR programmes (both depleting their assets and reducing time spent on livelihoods) while lack of materials or finance is a key reason for construction delays. Where culturally appropriate, the support provided for shelter recovery can also include support for repair and reconstruction of toilets – except for the most vulnerable families or areas with specific technical requirements (such as high water tables) where direct-build approaches might be more appropriate.

**Assessment of the needs, priorities and capacities of households and communities, as well the availability of labour, materials and land is necessary so that the most appropriate combination of assistance is provided.** This should include assessment of household’s urgent needs and priorities for recovery, as well as their ability to contribute time, skills and financial or material resources to the construction process. It should also include assessment of the local, national and international markets and supply chains for skilled and unskilled labour, construction materials and land.



**Analysis of potential risks to the programme is necessary so that these can be monitored and managed by the implementing agency while minimising potential negative impacts on households or communities.** This includes analysis of the likelihood and impact of political, economic, sociological, technological, legal and environmental factors such as inflation, conflict, corruption, policy change, housing, land and property rights, environmental degradation, natural hazards, health and safety, and lack of key resources such as labour, materials and land.

**Monitoring and flexibility during programme implementation is critical to validate earlier assumptions and identify and respond to changes in the context or outstanding needs.**

Monitoring should be carried out in collaboration with households, communities, local partners and governments while flexibility requires the support of colleagues and donors in order to make the changes required.

**SSSR programmes could be part of a tiered system of support (such as training, SSSR and 'SSSR Plus' or direct-construction) to households with different levels of need.** For example, all households in a community (plus carpenters and local government) could be provided with training on: build back safer techniques; safety during construction; and housing, land and property rights. Households in need could then receive support for shelter self-recovery (SSSR), while the most vulnerable could receive an additional package of material, financial and technical assistance ('SSSR Plus') or the direct construction of a transitional shelter or core home.





# 1. Introduction



## 1.1 Background

The majority of owner-occupiers repair or rebuild their own homes after disasters – either through self-building or by employing skilled and unskilled labourers<sup>11</sup>. Interventions supporting this process provide households with material, financial and technical assistance rather than tents or complete shelters. Such interventions have been called Support for Shelter Self-Recovery (SSSR).

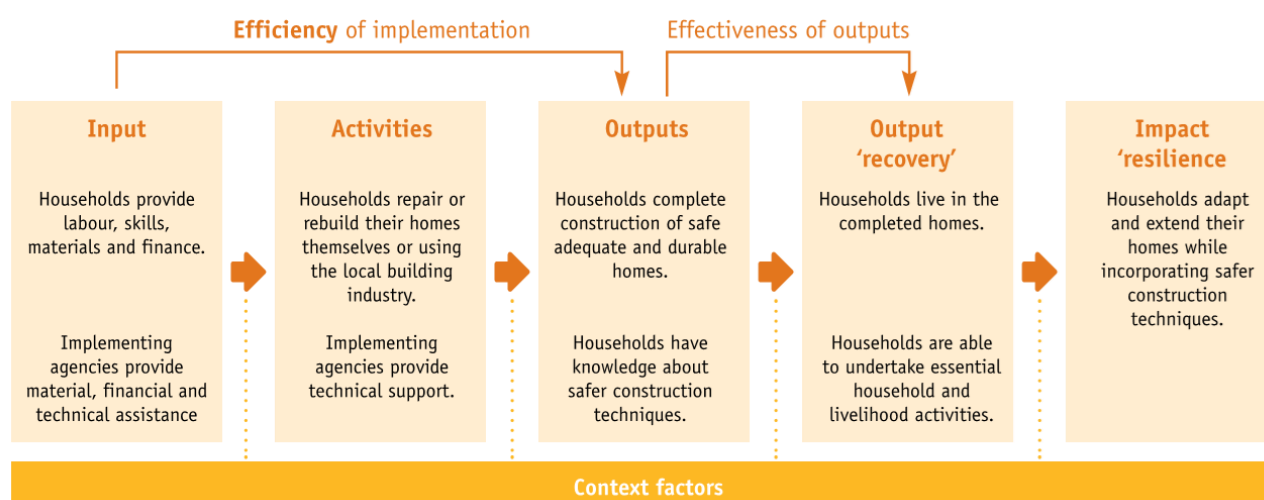
SSSR interventions have been defined by the authors as ‘providing one or a combination of material, financial and technical assistance’<sup>iii</sup>, during the relief and/or recovery phase, to enable affected households to repair, build or rebuild their own shelters themselves or through using the local building industry<sup>12</sup>. CENDEP highlight that ‘to be accurately described as ‘self-recovery’, the post-disaster shelter reconstruction process must be driven by the householder’<sup>13</sup> - with beneficiaries responsible for making key decisions such as the location, design or materials used for their homes.

Following super typhoon Haiyan in the Philippines in November 2013 ‘support for household self-recovery’ was one of three strategic objectives of the Shelter Cluster. This included the provision of shelter materials, tools, cash and technical assistance to 500,000 households within the first year of the response<sup>14</sup>. By October 2014 (11 months after the typhoon) agencies reporting to the Shelter Cluster had provided SSSR to more than 160,000 households<sup>15</sup> with a target of 240,000 households by the end of 2015<sup>16</sup>.

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<sup>iii</sup> Material assistance includes construction materials, tools and support (such as the provision of equipment) for salvaging and re-use of debris; financial assistance includes cash or vouchers; technical assistance includes guidance on construction through training, house-to-house monitoring and technical advice, guidelines or mass communications.

**Figure 1: Theory of change for SSSR programmes<sup>17</sup>**



## 1.2 Aims and research questions

The number and diversity of SSSR programmes implemented following super typhoon Haiyan provides a unique opportunity to capture lessons, challenges and best practice. This research aimed to synthesise learning from several SSSR programmes in order to improve policy and practice in future humanitarian responses. Specific research questions included:

### Interventions, outputs and outcomes

1. What combinations of assistance were provided?
2. How did the programmes balance coverage, speed and cost?<sup>iv</sup>
3. What were the outputs and outcomes?

### Process of implementation

4. What were the primary contributions of households?
5. Programming: what worked well and what was not as effective?
6. Context: what factors helped or hindered implementation?

Following this introduction Section 2 describes the interventions, outputs and outcomes (research questions 1-3) while Section 3 focuses on the process of implementation (research questions 4-6). Section 4 summarises the findings from this study, discusses the implications for policy and practice and suggests topics for further research.

<sup>iv</sup> Material, financial and technical support should be quantified using a consistent approach which may be financial value or time committed.

## 1.3 Methodology and limitations

Drawing on lessons from previous research by the authors into SSSR<sup>18</sup> this study adopted a simplified evidence synthesis approach. This involved: searching for and screening potential documents for inclusion; extracting and synthesising data; reporting and review.

### Searching for and screening potential documents for inclusion

64 agencies had already implemented, or planned to implement, SSSR programmes by October 2014<sup>19</sup>. This list of 64 programmes potentially eligible for inclusion in the study was reduced to a short-list of six by:

1. Excluding programmes which targeted fewer than 2,000 households (38 programmes)<sup>v</sup>;
2. Searching websites and/or contacting agencies to request documents for inclusion;
3. Screening the documents found or received (48 documents describing 17 programmes);
4. Excluding programmes which: did not meet the definition of a SSSR programme; had insufficient data on the intervention or its outcomes; or had data on SSSR programmes which were combined with findings from other types of programmes (11 programmes).

This process was completed between November 2016 and March 2017.

### Extracting and synthesising data

The short-listed documents were read in full, each of the interventions was summarised, and data describing the outcomes or processes of the interventions was extracted. A second round of analysis then mapped the data extracted against each of the categories of outcomes and factors identified in the authors' previous evidence synthesis on SSSR (see Appendix 1). Further rounds of analysis investigated specific topics in depth through the use of tables, graphs, maps and diagrams.

### Reporting and review

Preliminary findings from the synthesis were presented in May 2017. A draft report was then completed and reviewed by a working group of technical specialists from the agencies included in the study in June and July. The final report was drafted and reviewed by the working group between August 2017 and January 2018.

### Limitations

This evidence synthesis did not search academic databases for potential documents for inclusion. Although this is typically a key part of a systematic review or evidence synthesis process the authors' prior research indicated that 'the majority of evidence on the effects of humanitarian shelter and settlement interventions is captured in evaluations rather than academic publications'<sup>20</sup>. In addition, many of the programmes under investigation had only recently been completed: so even if academic research had been undertaken it would have been unlikely to be published within such a short timeframe. The authors' therefore decided that searching academic databases would be unlikely to identify additional documents for inclusion in the research.

The scale of need after humanitarian crises means that humanitarian organisations must assist large numbers of people in very short timeframes. Unfortunately two of the largest SSSR programmes

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<sup>v</sup> Programmes targeting less than 2,000 households were typically implemented by small, local organisations – often engaging in humanitarian shelter for the first time. These were excluded because they are unlikely to provide significant learning for future large-scale humanitarian responses or have sufficient documentation of their interventions and outcomes.



implemented in response to super typhoon Haiyan had to be excluded from this study<sup>vi</sup>. This is because of insufficient documentation on the interventions or their outcomes.

This research synthesises the evidence available in the documentation of SSSR programmes implemented following super typhoon Haiyan, but it was not possible to gather additional data (for example through key informant interviews) within the resources available for this project. Where possible gaps in information were filled by working group members during the review process but significant gaps remain for further research.



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<sup>vi</sup> By October 2014 Plan International had provided SSSR to 31,267 households out of a target of 31,994 while IOM had supported 29,451 households out of a target of 46,610 (Shelter Cluster Philippines, 2014d).

## 1.4 Context

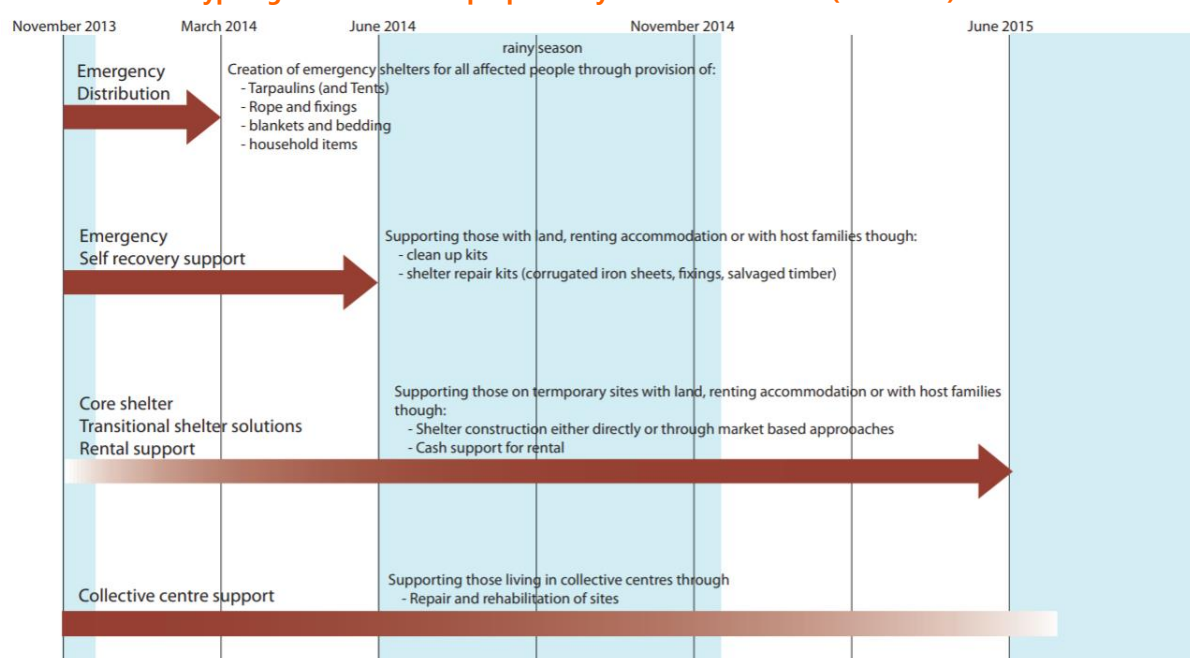
The Philippines is one of the most disaster-prone countries in the world<sup>21</sup> with around 1,000 fatalities and economic losses amounting to 0.7 per cent of GDP each year<sup>22</sup>. More than 60 per cent of the country is exposed to multiple hazards, including typhoons, earthquakes, floods, volcanic eruptions, droughts and landslides<sup>23</sup>, while 74 per cent of its population are considered vulnerable and 26.5 per cent poor<sup>24</sup>. Typhoons are the most frequent and the most damaging of all natural disasters in the Philippines. Despite the development of considerable national capacity for Disaster Risk Reduction and Management (DRRM)<sup>25</sup>, rapid urbanisation coupled with environmental degradation and climate change continue to exacerbate the country's vulnerability to natural hazards<sup>26</sup>.

On 8 November 2013, super typhoon Haiyan (known locally as Yolanda) devastated the central regions of the Philippines. More than 6,000 people lost their lives, 14 million were affected and approximately four million displaced<sup>27</sup>. A total of 1,012,790 houses were damaged or destroyed by the super typhoon - 493,912 partially damaged and 518,878 totally damaged<sup>28</sup>. The majority of damaged or destroyed homes were *Bahay Kubo* or *Nipa Huts* (traditional houses with palm roofs), a significant number of timber houses were also destroyed or damaged while masonry buildings were least damaged<sup>29</sup>. Over a third of households had little to no formal security of tenure while approximately 60% owned their houses (with the majority also owning their land)<sup>30</sup>. Within a month of the typhoon almost 80% of households had already started rebuilding their homes but around 50% said they would be unable to complete repairs without assistance<sup>31</sup>.

At the outset of the response the Shelter Cluster proposed four categories of shelter assistance (see figure 2):

- 1) Emergency shelter assistance (such as the distribution of tarpaulins and tents).
- 2) Support for shelter self-recovery (through the distribution of shelter repair kits).
- 3) Rental support or the construction of transitional/core shelters.
- 4) Support to families living in collective centres.

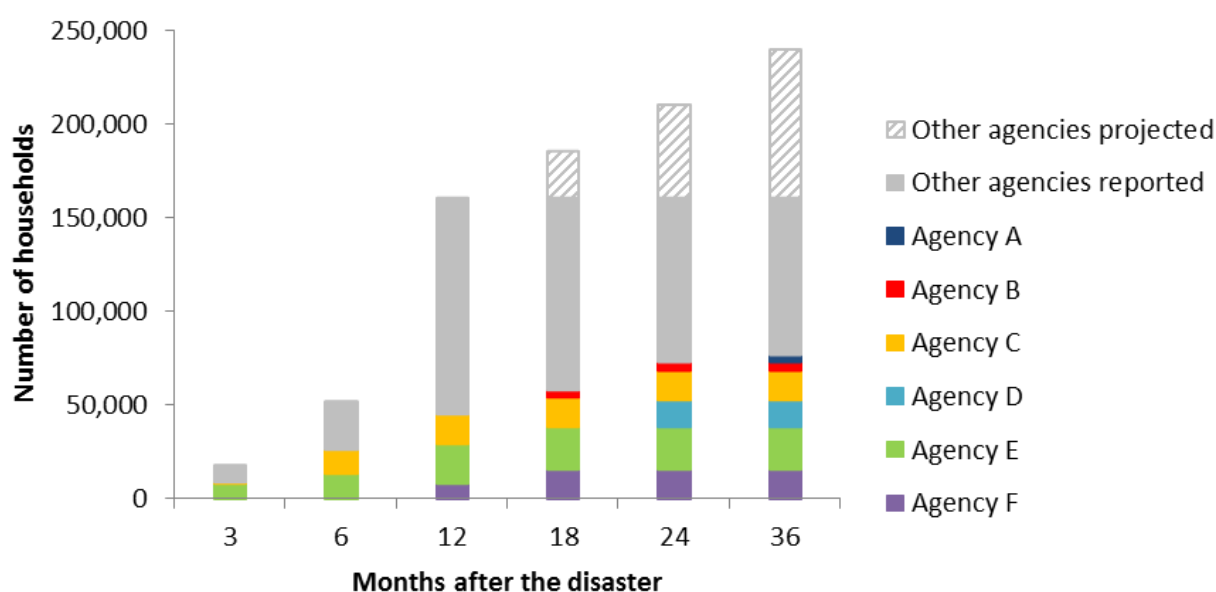
**Figure 2: Assistance typologies and timeline proposed by the Shelter Cluster (Nov 2013)<sup>32,33</sup>**





In March 2014 the Shelter Cluster's Strategic Operational Framework identified 'support for household self-recovery' as one of its three strategic objectives – aiming to provide shelter materials, tools, cash and technical assistance to 500,000 households within the first year of the response<sup>34</sup>. By October 2014 approximately 160,000 households had received support for 'repairs and retrofit' (or SSSR)<sup>35</sup> while organisations had confirmed funding to support a further 80,000 households<sup>36</sup>. The majority of these programmes were completed within the first 18-36 months of the response. Collectively the six programmes included in this study supported 76,407 households or around one third of the 240,000 households assisted by agencies reporting to the Shelter Cluster during the response to super typhoon Haiyan (see figure 3).

**Figure 3: Number of households provided with SSSR by Shelter Cluster agencies over time<sup>37</sup>**





## 1.5 Interventions

### Agency A

Agency A's recovery programme provided support for shelter, infrastructure, livelihoods, Water, Sanitation and Hygiene (WASH), health, and Disaster Risk Reduction (DRR) in four municipalities in Leyte. Shelter interventions included:

- The provision of SSSR to 3,459 vulnerable households with moderately damaged houses between April 2015 and April 2016. Around 20 per cent of these households were also provided with toilets via a direct build programme.
- The construction of core shelters and toilets (plus training on safe shelter construction techniques) for 1,521 vulnerable households with severely damaged houses between October 2014 and July 2017.
- Training and support on housing, land and property rights (HLP) for 1,195 vulnerable households with tenuous land rights between November 2016 and May 2017.

The SSSR programme included the provision of material, financial and technical assistance to support households to retrofit their house to a defined level of safety.

### Agency B

Agency B's recovery programme included interventions in shelter, livelihoods, health, DRR and WASH in two municipalities in Iloilo. Shelter interventions included:

- The provision of 'Shelter Repair Assistance' to 4,180 households with damaged houses and the capacity to recover - 3,515 households received Shelter Repair Assistance by the end of 2014 with a further 665 households in August and September 2015.
- The construction of core shelters and toilets for 1004 households with totally destroyed houses and no capacity to rebuild. The core shelters and toilets were completed between August 2014 and March 2016.

The Shelter Repair Assistance programme provided material and financial assistance to support households to repair their houses.

### Agency C

Agency C partnered with several local/national NGOs to provide 'Shelter Repair Kits' to 15,859 households between December 2013 and November 2014. The programme targeted the most vulnerable families living in remote<sup>vii</sup>, predominantly inland areas in 15 municipalities in Aklan, Capiz, Iloilo and Leyte. Many of the *barangays* that received support for shelter self-recovery were also part of Agency C's livelihoods recovery programme but the organisation did not provide support for WASH.

Agency C's 'Shelter Repair Kit' intervention included material, financial and technical assistance to assist households to repair or rebuild. A second phase of the programme provided additional cash 'top-up' grants to 6,692 households who had received the initial support but were not able to complete their houses.

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<sup>vii</sup> Geographically Isolated and Disadvantaged Areas, GIDA, as classified by the Philippine Government.

### Agency D

Agency D's recovery programme included: integrated shelter/WASH; livelihoods; and DRR. It targeted households who were unable to self-recover or could self-recover with support in six municipalities in Easter Samar and five municipalities in Leyte. Agency D supported 20,655 households to attain 'safe, adequate and durable shelter' between February 2014 and October 2015.

Households could choose to receive either: material, financial and technical support so they could repair or rebuild their own shelter and toilet (SSSR known as 'cash grant'); or a transitional shelter and toilet built by Agency D. Households living within the 'no-dwelling zones'<sup>viii</sup> were also able to choose from support to rent land, a house or apartment, or stay with a host family to enable them to move outside the no-dwelling zone.

### Agency E

Agency E provided support for shelter self-recovery to 22,687 households between November 2013 and April 2015. The programme targeted two municipalities in Samar, eight municipalities in Leyte, five municipalities in Cebu, and two municipalities in Iloilo. The organisation did not provide support in other sectors but it did run a core home programme for households being relocated from 'no-build zones' in other geographic areas.

Agency E's standard SSSR intervention included material and technical assistance to support households to repair their homes. During the first few months of the response the organisation provided a lower level of support to households in Samar at the request of a donor. In this area the organisation implemented a second phase of its programme - providing 'top-up' material and technical assistance to 2,300 households who had received the initial support but were not able to complete their houses<sup>ix</sup>.

### Agency F

Agency F's recovery programme included interventions in shelter, WASH, livelihoods, health, DRR and child protection/education in 10 municipalities in Leyte, Cebu and Panay. It was designed as 'an inter-sectoral response where shelter response was the entry point at the household level around which other interventions were programmed'. Shelter interventions included:

- The distribution of Shelter and Toilet Kits to 15,700 households between May 2014 and January 2015 to support households to repair or rebuild their houses and toilets (beneficiary selection and procurement took place from February 2014).
- The construction of transitional shelters and toilets for 885 extremely vulnerable families between August 2014 and March 2015.
- The provision of training on safer construction techniques, site safety and child protection to communities and carpenters between March and July 2014.

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<sup>viii</sup> 15 percent of total overall Haiyan response target but 83 percent of households in the Tacloban target population

<sup>ix</sup> The 'top-up' programme employed four 'implementing partners' (small contractors) to source materials and organise teams of four labourers plus a foreman to spend 2-3 days building a shelter for each family. Households liaised with the foreman to agree on design for their shelter which combined salvaged materials from their pre-disaster home (often the foundations and corner posts) with materials purchased or donated following the typhoon and the additional materials provided through the 'top-up' programme.

Table 1: Overview of the interventions

Implementing agency	Recovery interventions	Shelter interventions	Number of households assisted	Programme start date	Programme end date
<b>AGENCY A</b>	Shelter WASH Livelihoods DRR Health Infrastructure	<b>SSSR</b>	<b>3,459</b>	<b>Apr 2015</b>	<b>Apr 2016</b>
		Core shelters and toilets	1,521	Oct 2014	July 2017
		HLP training and support	1,195	Nov 2016	May 2017
<b>AGENCY B</b>	Shelter WASH Livelihoods DRR Health	<b>Shelter Repair Assistance (SRA)</b>	<b>4,180</b>	<b>Unknown</b>	<b>Dec 2014 (Phase 1 – 3,515 HH) Sept 2015 (Phase 2 – 665 HH)</b>
		Core shelters and toilets	1,004	Aug 2014	Mar 2016
<b>AGENCY C</b>	Shelter Livelihoods	<b>Shelter Repair Kits (SRKs)</b>	<b>15,859</b>	<b>Dec 2013</b>	<b>Nov 2015</b>
<b>AGENCY D</b>	Integrated shelter/WASH Livelihoods DRR	<b>'Cash grant for shelter'</b>	<b>14,522</b>	<b>Feb 2014</b>	<b>Oct 2015</b>
		Transitional shelters and toilets	3,903		
		Land rental support	383		
		Flat/house rental support	1,473		
		Host family support	384		
<b>AGENCY E</b>	Shelter	<b>Shelter Repair Kits (SRKs)</b>	<b>22,687</b>	<b>Nov 2013</b>	<b>Apr 2015</b>
<b>AGENCY F</b>	Shelter WASH Livelihoods Child protection/education	<b>Shelter and toilet kits</b>	<b>15,700</b>	<b>May 2014</b>	<b>Jan 2015</b>
		Transitional shelters and toilets	885	Aug 2014	Mar 2015
		Safer construction training <sup>x</sup>	13,450 beneficiaries 450 carpenters	Mar 2014	Jul 2014

Note: **Bold** indicates the SSSR programmes which are the focus of this study. Other programmes are mentioned in this study where relevant but are not included in the analysis of outputs or outcomes.

<sup>x</sup> Many of the programmes provided training as part of the SSSR programmes, but this agency ran a specific training programme.



## 2. Interventions, outputs and outcomes



### 2.1 What combinations of assistance were provided?

All of the interventions provided a combination of material, financial and technical assistance. All six interventions provided material and technical assistance, while four also provided financial support (see table 2).

**Table 2: Summary of the material, financial or technical assistance provided**

Implementing agency	Material	Financial	Technical
<b>AGENCY A</b>	<b>Materials:</b> 0-20 CGI sheets (as needed)	10-30,000 Php <b>cash grant</b> (depending on level of damage) in two tranches: 70% initially and 30% on completion.	One day <b>BBS training</b> for beneficiaries (presentation and practical exercise)  <b>Shelter Cluster BBS poster</b> given to each household  <b>House-to-house assessment, monitoring, technical advice and approval</b> by technical staff (approximately 3 visits per household)
<b>AGENCY B</b>	<b>Materials:</b> 10 CGI sheets	10,000 Php <b>cash grant</b>	<b>BBS training</b> to 'shelter champions' who were responsible for educating the community  <b>Shelter Cluster BBS posters</b> displayed in barangay offices
<b>AGENCY C</b>	<b>Materials:</b> 10 CGI sheets, 1 plain sheet, 3.8m aluminium screen  <b>Tools:</b> hand saw, tin snip, hammer  <b>Fixings:</b> 5kg steel strap, 1.6kg galvanised iron wire, 500ml elastoseal, 1kg flat nails, 2kg common wire nails 4", 2kg common wire nails 3", 3kg umbrella nails	3,000 Php <b>cash grant</b> to all families, plus 5,000 Php 'top-up' grant to households who were not able to complete their houses.	Half day <b>BBS briefings</b> at community level with messages repeated at subsequent meetings  <b>House-to-house monitoring, technical advice and support</b> from a 'roving team' with monitoring by Agency C/partner NGO's technical staff  <b>BBS training</b> to roving team members of up to a day (2 carpenters per team)  <b>Shelter Cluster BBS posters</b> displayed at distributions and prominent locations  <b>Leaflets on safety during construction</b>

<b>AGENCY D</b>	<p><b>Shelter materials:</b> 20 CGI sheets and 2 plain sheets (all damage categories)</p> <p><b>Toilet materials:</b> Major and minor damage: 4 CGI sheets and a toilet bowl. Totally damaged: direct build</p>	<p>Shelter: 20,000-49,500 Php <b>cash grant</b> (depending on level of damage) in two or three tranches</p> <p>Toilets: 1,000-10,000 Php <b>cash grant</b> (depending on level of damage) in one tranche. Totally damaged: <b>direct build</b>.</p>	<p><b>BBS and hygiene promotion training</b> to beneficiaries</p> <p><b>House-to-house monitoring, technical advice and approval</b> by technical staff</p> <p><b>Shelter Cluster BBS posters</b> displayed</p> <p><b>Leaflets</b> distributed during trainings</p>
<b>AGENCY E</b>	<p><b>Materials</b> (standard programme): 8 sheets marine plywood ¼ inch 4x8ft, 10 pieces coco lumber 2x3x10ft, 12 CGI sheets 12ft gauge 26, 2 plain sheets 3x8ft gauge 26, 3kg umbrella nails 2 ½ inch, 3kg common wire nail 3inch</p> <p><b>Tools:</b> Hammer, hand saw</p>	None	<p><b>BBS briefings</b> at community level</p> <p><b>Shelter Cluster BBS poster</b> given to each household</p> <p><b>Shelter Cluster BBS posters</b> displayed on noticeboards in each barangay</p>
<b>AGENCY F</b>	<p><b>Shelter kit materials:</b> 12 CGI sheets 10ftx0.4mm, 2 plain sheets 10ftx0.4mmx18", 4 pieces coco lumber 4"x4"x12ft, 12 pieces coco lumber 2"x4"x12ft, 6 sheets marine plywood 1/2" x4ftx8ft</p> <p><b>Shelter kit tools and fixings:</b> Handsaw, claw hammer, tape measure, shovel, machette, hoe, pick mattock, crow bar, tin snips, chisel, gloves, 3kg common wire nails 4", 2kg common wire nails 3", 3 kg common wire nails 2", 2.5kg umbrella nails.</p> <p><b>Toilet Kit:</b> three bags of cement, two floor grates, sets of piping, toilet bowl and reinforcement bar</p>	None	<p>Half day <b>BBS training</b> to all households in the community.</p> <p>One week <b>BBS training and tools</b> for 450 carpenters (in partnership with TESDA)</p> <p><b>AGENCY B training</b> for the barangay disaster management committee and TESDA trained carpenters so that they can provide training and monitor construction.</p>

### Material assistance

Three organisations (A, B and D) just provided CGI sheeting:

- Agency B provided 10 sheets to all households.
- Agency A provided up to 20 sheets to each household based on a needs assessment.
- Agency D provided 20 sheets to all households (and two further plain galvanised iron sheets to be used for the junctions between CGI sheets).

Three organisations (C, E and F) provided SSSR kits including:

- Construction materials such as CGI sheets, plywood and coconut timber.
- Fixings such as common and umbrella nails.
- Tools such as hammers, hand saws and tin snips.

One organisation provided steel strapping and galvanised iron wire to support households in building timber connections that would meet the BBS guidelines. These were provided directly as it was felt that households might be unable to buy them in local markets or be unwilling to prioritise their purchase or installation.

### Financial assistance

Four organisations provided financial assistance in the form of conditional cash grants. These ranged from 3,000-8,000 Php (Agency C) and 10,000 Php (Agency B) to 10,000-30,000 Php (Agency A) and 20,000-49,500 Php (Agency D). Agency C provided a 'top-up' grant to households who were not able to complete their houses while organisations A and D both varied the level of financial assistance provided depending on the level of damage to the house and disbursed the grants in two or three tranches.

### Technical assistance

While it's possible to describe, and therefore compare, the material and financial assistance provided quite precisely the different terminology used by each organisation to describe the technical assistance provided makes this much more difficult to compare.

**Information, Education and Communication (IEC) materials:** All agencies displayed and/or distributed the Shelter Cluster Build Back Safer (BBS) posters. Agency C also distributed a leaflet to beneficiaries on safety during construction while Agency D distributed leaflets on topics such as tenure security and shelter maintenance.



**Training:** Five organisations provided BBS training to beneficiaries and/or communities – ranging from half to a full day in duration – while Agency B trained 'shelter champions' (often members of the Barangay Recovery Committee or volunteers) to share BBS messages with the rest of their communities. Agencies C and F also provided training to carpenters. In Agency F's programme this took one week and was conducted in partnership with the Technical Education and Skills Development Authority (TESDA). Agency F also trained the village disaster management committee and TESDA trained carpenters so that they could provide training and monitor the quality of construction during and after completion of the programme.

**House-to-house technical support:** Three organisations (A, C and D) provided house-to-house monitoring and technical advice. For agency C this was provided by a 'roving team' of two carpenters and one social mobiliser who provided ongoing technical advice for a two-month period, with frequent monitoring by the organisation and its partners' technical staff. For Agencies A and D house-to-house technical support was provided by technical staff from within the organisation. It was also linked to approval of phases of construction to agreed standards, prior to disbursement of subsequent phases of cash grants.



**Table 3: Comparison of the technical assistance provided**

Type of assistance provided / Implementing agency	IEC materials			BBS training				House-to-house monitoring and technical support
	BBS posters displayed	BBS posters distributed to households	Leaflets on other relevant topics	For beneficiaries/communities	For carpenters	For shelter champions	For barangay disaster management committee	
<b>AGENCY A</b>		✓		✓				✓
<b>AGENCY B</b>	✓					✓		
<b>AGENCY C</b>	✓		✓	✓	✓			✓
<b>AGENCY D</b>		✓	✓	✓				✓
<b>AGENCY E</b>	✓	✓		✓				
<b>AGENCY F</b>	✓	✓		✓	✓		✓	

**Box 1: Integration with other shelter programmes and interventions in other sectors**

Two organisations (C and E) implemented stand-alone SSSR programmes while four agencies implemented SSSR in conjunction with direct-build transitional shelter (D and F) or core home (A and B) programmes for the most vulnerable households. All of the programmes included some level of training on safer construction techniques. Three also included specific training programmes on: housing, land and property rights (A and D); protection and governance (Agency D); child protection and safety during construction (Agency F).

One intervention was described as ‘an integrated programme with shelter as the entry point’ (Agency F) – this involved a holistic assessment of communities’ needs and priorities, followed by multi-sectoral interventions. Another was designed as an integrated shelter/WASH programme with parallel livelihoods and DRR programmes (Agency D). Two agencies (A and B) ran WASH, livelihoods and DRR programmes in parallel to the shelter programme. One agency focused on just SSSR and livelihoods (Agency C).

Two organisations (D and F) provided integrated support for the construction of shelter and toilets. Both initially adopted a self-recovery approach to toilet construction (providing an additional package of material, financial and technical assistance). However, Agency D changed to direct-build for the reconstruction of totally damaged toilets or those with in areas with high water tables to ensure technical quality.

## 2.2 How did the programmes balance coverage, speed and cost?

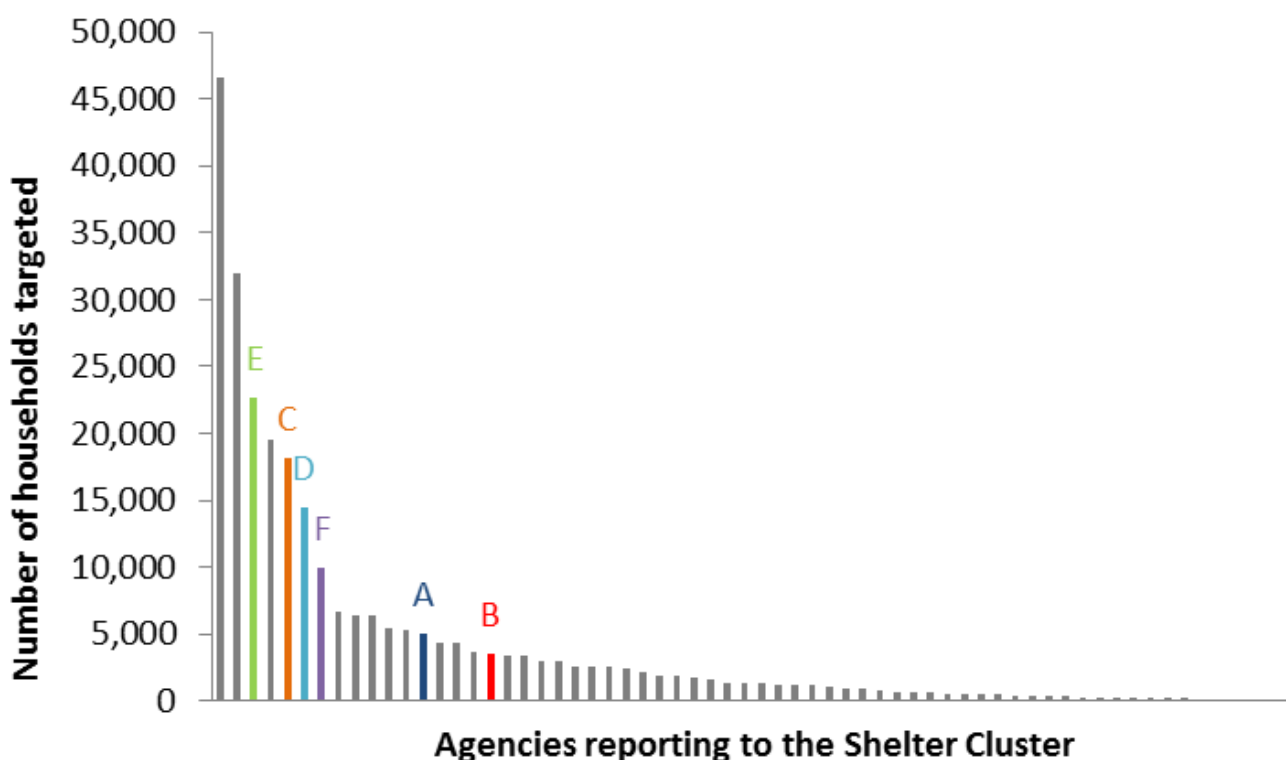
### *Coverage (number of households assisted)*

The six interventions included in this study ranged in coverage from 3,459 to 22,687 households. These are representative of the larger and medium-sized programmes in the response (see figure 4):

- Four of the interventions targeted between 10,000 and 50,000 households (as did three other programmes not included in this study).
- Two of the interventions targeted between 2,000 and 10,000 households (as did 17 other programmes not included in this study).
- A further 38 organisations (not included in this study) each targeted less than 2,000 households.

The largest programme in the response eventually met around 10 per cent of the Shelter Cluster target of 500,000 households. The programmes included in this study each met between 0.7 and 4.5 per cent of the overall target.

**Figure 4: Households targeted for SSSR by agencies reporting to the Shelter Cluster (6.10.2014)<sup>38</sup>**



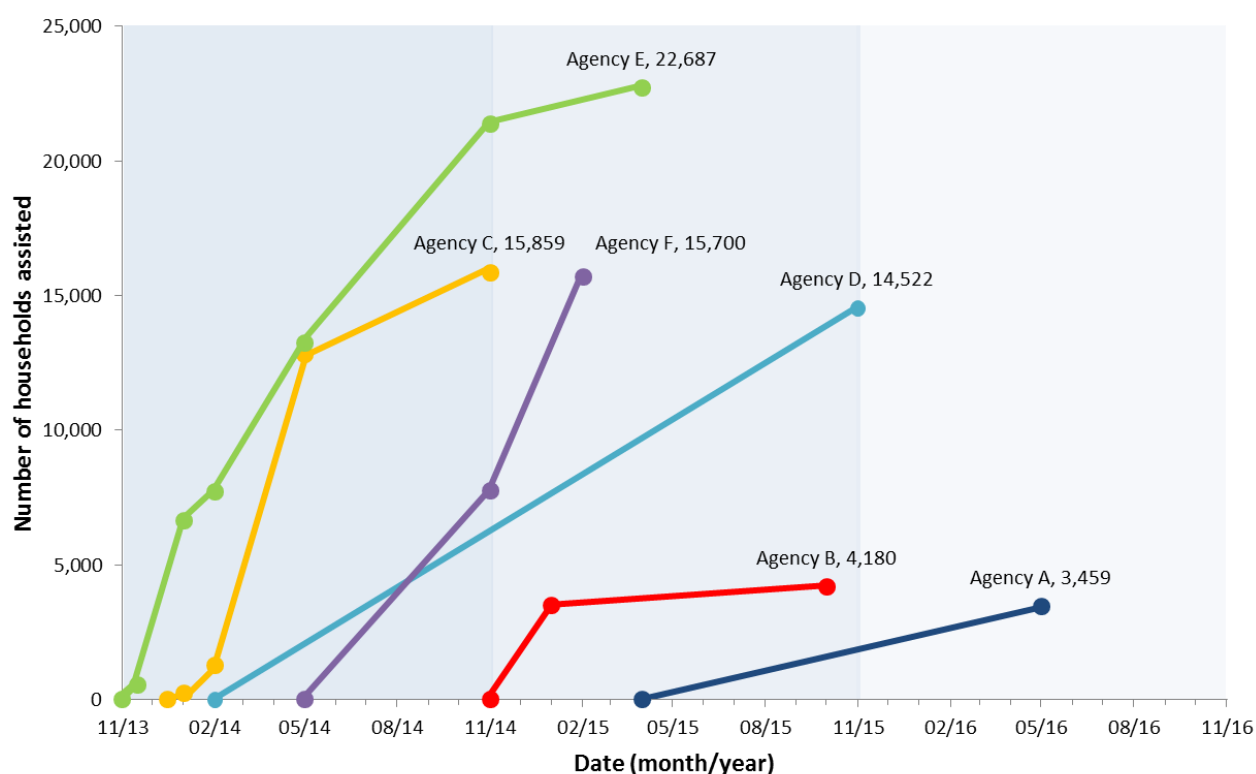
### Speed of implementation

Of the four interventions which targeted between 10,000 and 50,000 households:

- Two agencies (C and E) began implementation of their stand-alone SSSR programmes within two months of the typhoon based on rapid context and needs assessments (see section 3.2). Both organisations later introduced 'top-up' programmes for the most vulnerable families and concluded their SSSR programmes within 12-18 months of the typhoon.
- Two agencies (D and F) undertook more detailed assessments and designed programmes which combined multiple types of shelter assistance with interventions in other sectors. These organisations began implementation of their SSSR programme within 3-6 months and concluded within 18-24 months of the typhoon.

The final two agencies (A and B) began implementation 12-18 months after the typhoon and assisted around 4,000 households within the first 24-36 months after the typhoon. See figure 5 for further details.

**Figure 5: Coverage versus speed of the interventions**

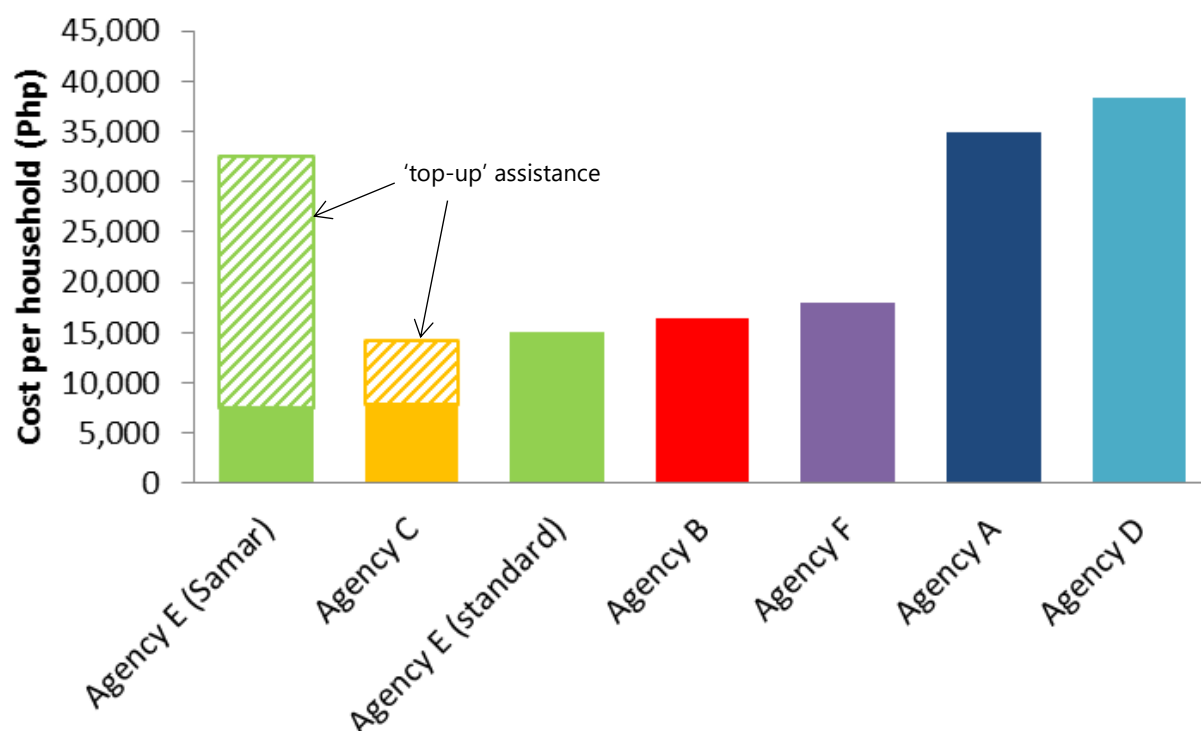




### Cost per household

Comparison of the cost of the interventions was challenging because of the lack of information available and the ways different organisations reported costs (for example including or excluding indirect or programme support costs). This was compounded by the different currencies and exchange rates used in reporting, and the variation of these rates throughout the response. However, based on the information provided a comparison was made between the approximate cost per household of each intervention (see figure 6).

**Figure 6: Approximate cost per household of the assistance provided<sup>xi xii</sup>**



Agencies C and E (in its programme in Samar) initially provided the lowest value support per household – just 7,500 and 7,845 Php per household, but both agencies later provided ‘top-up’ grants of 6,373 Php (Agency C) and 25,000 Php (Agency E) to families in need of additional support.

The cost per household of support provided by agencies B and F was around 16,500 Php and 18,000 Php respectively. This is similar to the value of Agency E’s standard programme (15,000 Php per household) and the total cost per household for a family who received both the phase 1 and ‘top-up’ assistance from Agency C (14,218 Php).

The cost per household of assistance provided by agencies A and D was significantly higher (at 34,880 Php and 38,295 Php respectively). Although the cost per household for Agency D also includes support for the construction of a toilet.

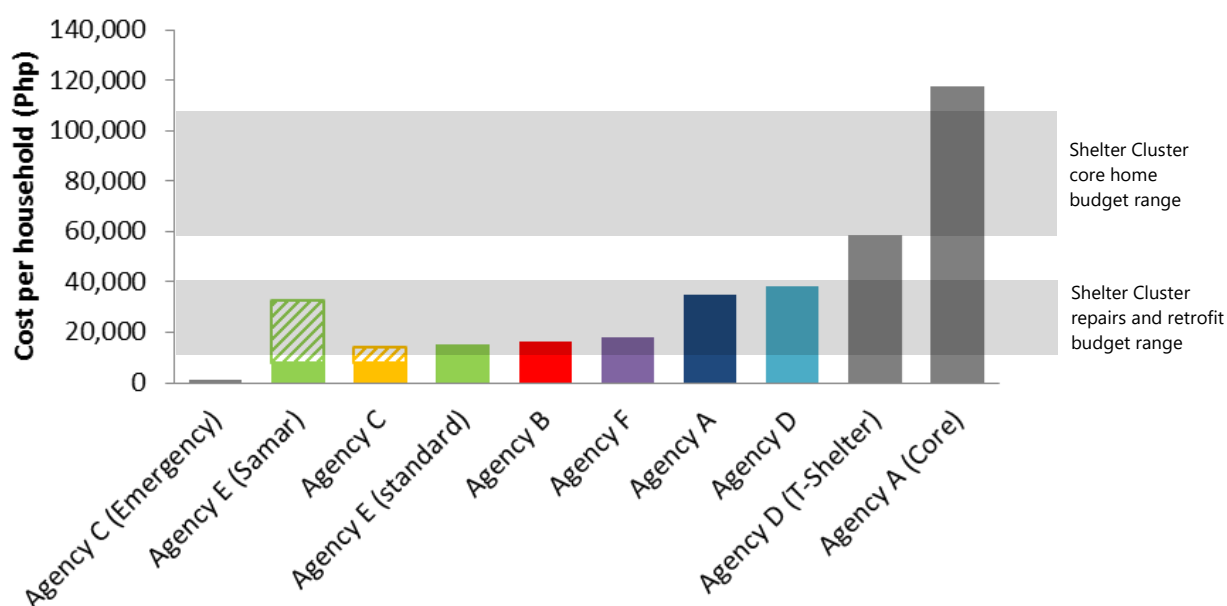
<sup>xi</sup> Including programme support costs – where reported these were around 10%.

<sup>xii</sup> Agency E initially provided lower value support per household in Samar but later provided ‘top-up’ assistance to households who had received the initial support but were not able to complete their houses. See section 1.5 for further details.

The cost of assistance provided by Agencies A, B, D, E (in its standard programme) and F was within the budget proposed by the Shelter Cluster in its Recovery Shelter Guidelines<sup>39</sup> for minor and major repairs (10,000-18,000 Php and 20,000-40,000 Php respectively).

The least expensive SSSR programmes (C and E) still had an initial cost per household of around five times the cost of an emergency shelter kit (and both later provided 'top-up' support). The most expensive of the SSSR programmes (Agency D – which included a toilet) had a cost per household of around two thirds of budget proposed by the Shelter Cluster in its Recovery Shelter Guidelines<sup>40</sup> for core home programmes (60,000-110,000 Php – excluding WASH)<sup>41</sup> or just one third of the cost per household of the core home programme implemented by Agency A (and others) in the recovery/reconstruction phase (see Figure 7).

**Figure 7: Comparison of the cost per household of the SSSR programmes with ESK and core home programmes and budgets proposed in the Recovery Shelter Guidelines.**

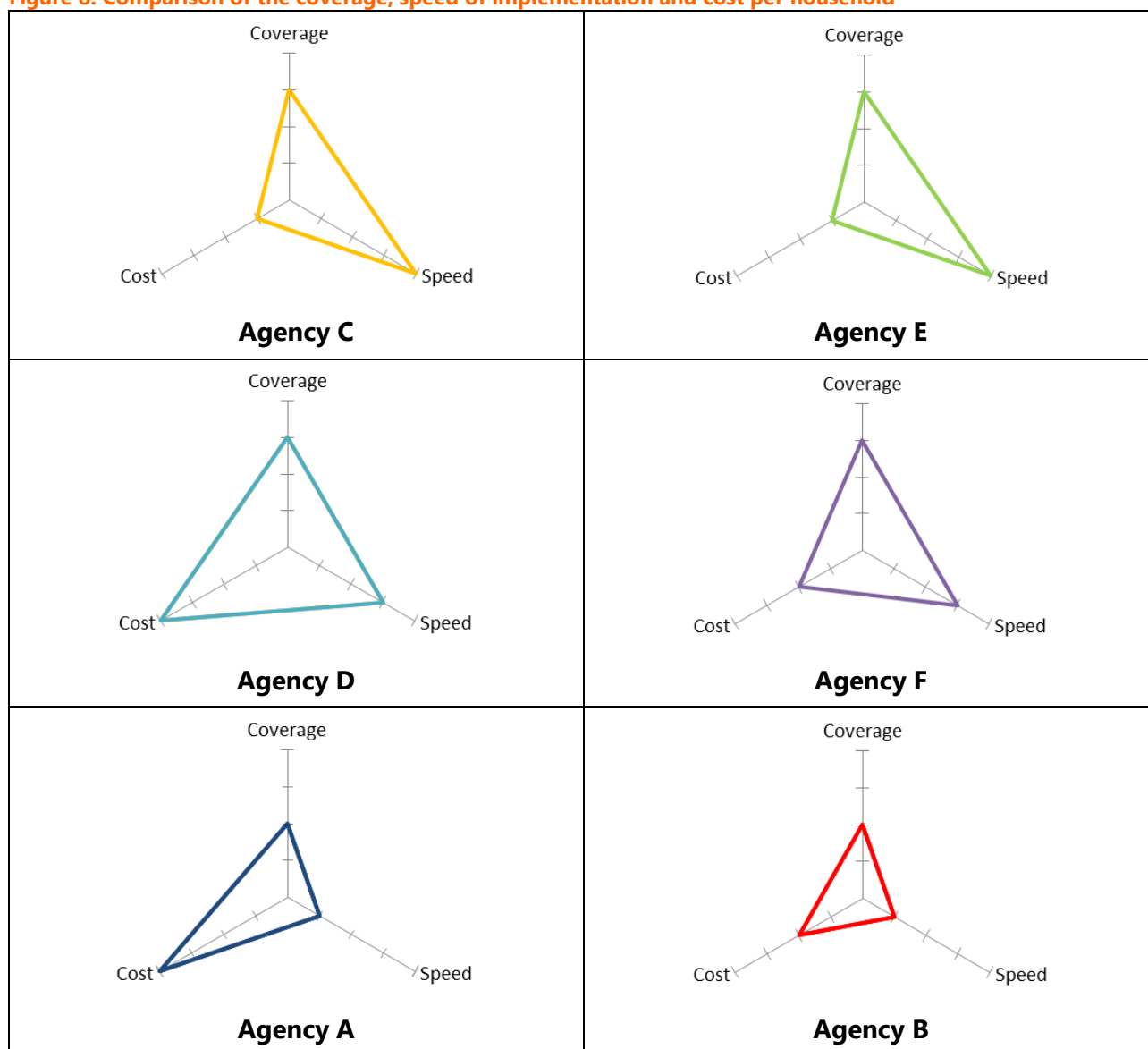


### **Comparing coverage, speed of implementation and cost per household**

In addition to comparing the coverage, speed of implementation and cost per household between interventions (as above) figure 8 provides a graphical representation of how each programme balanced these three variables. This highlights a number of trends:

- Agencies C and E implemented stand-alone SSSR programmes which rapidly provided relatively low value support to a large number of households. At a strategic level these interventions are very comparable – although there are many differences in the process of implementation (see section 3).
- Agencies D and F implemented programmes which combined multiple types of shelter assistance with integrated interventions in other sectors. While the total number of households assisted by these interventions was similar to those implemented by Agencies C and E they took longer to implement and at a higher cost per household.
- Agencies A and B implemented programmes with multiple types of shelter assistance while interventions in other sectors were completed in parallel. Both interventions were slower and smaller in terms of coverage than the other interventions included in this study. Strategically the main difference between these two programmes is cost.

**Figure 8: Comparison of the coverage, speed of implementation and cost per household**



**Notes:**

Each variable (coverage, speed, cost) has been plotted against a scale of 0 (in the centre of each diagram) to 4 (at the edge). Each variable has a different scale:

- Coverage (total number of households assisted): 1 = less than 2,000, 2 = 2,000-10,000, 3 = 10,000-50,000, 4 = more than 50,000
- Speed (number of households assisted in the first 12 months): 1 = less than 1,000, 2 = 1,000-5,000, 3 = 5,000-15,000, 4 = more than 15,000
- Cost (per household): 1 = less than 10,000 Php, 2 = 10,000-20,000 Php, 3 = 20,000-30,000 Php, 4 = more than 30,000 Php



## 2.3 What were the outputs and outcomes?

### *Household-level outputs*

The studies reported on the following output measures (see Figure 1: Theory of Change):

- Completion rates of shelters.
- Size, safety and durability of shelters.
- Household knowledge about safer construction techniques.

There was no consistent set of indicators used by the different agencies to measure project outputs, nor a consistent approach or methodology. Critical differences between agencies included: what was evaluated; the timing of the evaluation; and whether the evaluation included a technical assessment or relied on beneficiary perception. Such differences make it very difficult to make detailed comparisons between the data.

### **Completion rates**

The number of households who had not used the assistance provided to repair or rebuild their homes at the time the programmes were evaluated ranged from around 3 per cent (Agencies D and E), through eight or nine per cent (Agencies C and A) to 60 per cent (Agency F).

Two of the programmes (A and D) provided cash grants in phases – conditional on inspection and approval of phases of construction by technical staff in the field. These programmes, therefore, had a higher degree of certainty regarding the programme outputs:

- Agency A reported that 78 per cent of households used the financial assistance provided to purchase construction materials, 13 per cent of households used it on construction labour, while 9 per cent of households did not use the financial assistance on construction (and were therefore excluded from further phases of the programme).
- Agency D reported that 507 shelter beneficiaries (and 139 toilet beneficiaries) were dropped from the programme after receiving the first tranche of financial assistance because they 'left the program, didn't use the cash received on intended purposes [or] went to other place without finishing the program'. This represents a drop-out rate of around 3.5 per cent. The majority of dropouts were from the 'totally damaged' or 'major damaged' categories. Agency D suggested two reasons for dropouts: 1) that the programme 'did not adequately respond to the needs of poorer beneficiaries' and 2) that 'families with larger concrete homes... did not adequately plan the budget that would be needed to repair the whole house. Because they were overambitious, they could not complete the shelters within the set timeframe'.

Agency B did not report on the completion rates of shelters. However, the organisation's mid-term review noted that households used the assistance provided in three different ways (with the majority in the latter two categories). "Patch-ups" where the materials had been used unsystematically to address the immediate defects of the typhoon damaged shelter'... "New build" where beneficiaries had attempted to build a completely new and more robust house for which the assistance provided was insufficient'... "Whole repairs" where the resources provided... usually enhanced by further funds from the beneficiary - have been used to complete a systematic repair of the building'. The mid-term review highlighted 'serious doubts' about the "patch-ups" and many of the "new builds" were incomplete. However, the "whole repairs" had resulted in an 'improved house'.

Agency C's two year evaluation reported a 92 per cent completion rate and that 'nearly everyone has completed their houses to an adequate level – where 'adequate' is defined as being

substantially finished with secure roof and walls as well as complying with the Build-Back-Safer messages'. However, in interviews and focus groups with beneficiaries 'almost everyone says that their houses are not complete. By saying that their houses were not complete, the families were expressing an aspiration to continue to improve them by up-grading the walls from bamboo to plywood, or to buy enough CGI to fully cover their kitchen extensions. Nearly all mentioned a "lack of budget" as a reason for incompleteness, but also expressed an intention to do more once funds were available'. Agency C also noted that 'a large number [of households] had taken the opportunity to build a larger house more suited to their family size or needs' and 'this had clearly affected the ability of many to complete their houses to their satisfaction'.

Agency E reported that around three months after distribution of its shelter repair kits in Guiuan municipality approximately 92 per cent of households had used the assistance to repair or rebuild their shelters, around 5 per cent of shelters were under construction, while around 3 per cent had not yet used the materials.

Agency F reported that one year after material distribution 40 per cent of households had completed the repairs to their houses. In addition, a number of households reported the repairs they had completed were temporary and that their shelters had received further damage in typhoons Hagupit (Ruby) and Jangmi (Seniang) in December 2014. 93 per cent of households which had not yet started construction had stockpiled the materials with 51 per cent reporting insufficient materials and the lack of capacity to pay for labour as their reasons for not yet starting construction. When Agency F provided conditional cash grants for labour in some municipalities it did not increase the speed of construction – therefore staff suggested that lack of materials was the primary barrier.

### **Size, safety and durability of shelters**

Agency A undertook a detailed 'Whole House Technical Assessment' to assess the safety and durability of the completed shelters<sup>xiii</sup> against set criteria for: foundations; posts/columns; wall structure; roof; and floor system. Based on this assessment '62% of houses were classified as "Good", 33% of houses were classified as "Fair", 4% were classified as "Poor", and 1% were classified as "Very Poor"'. Further analysis indicated that foundations and flooring were the weakest elements with '10% of houses having "Poor" or "Very Poor" foundations and 10% of houses having "Poor" or "Very Poor" flooring'.



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<sup>xiii</sup> Excluding the 9 per cent of households who had dropped out prior to receiving the final tranche of assistance.

Agency B's programme 'did contribute to helping people waterproof and strengthen their partially damaged homes' and households reported 'having more space and comfort' than before the typhoon. However, the organisation's technical assessment 'highlighted serious shortcoming in improving resilience of shelters with 94% of roofs assessed as weak or very weak due to the lack of knowledge in build back safer by carpenters. In addition, 80% of walls still needed bracing and 80% of columns required treatment. Similar problems existed in other structural components'.

Agency C reported that 'the new houses were considered by the beneficiaries to be a substantial improvement [on their pre-typhoon homes] – the CGI roofing, in particular, was said to be much, much better as it lasted longer and did not leak'. The organisation itself found that 'there was generally a good uptake of the main build-back-safer measures' and 'the standard of basic carpentry was fairly consistently high'. However, 'there was quite considerable variation in the technical quality achieved'.

Agency D's Mid-Term evaluation reported that 73 per cent of households which received SSSR felt their shelters were safe, adequate and durable<sup>xiv</sup>. This was significantly higher than households which received transitional shelters via the organisations direct-build programme – where just 48 per cent of households felt the same way. In addition, households reported 'that the shelter built all withstood Typhoon Ruby (Dec 2014). This was mostly accredited to the use of BBS techniques' such as foundations, bracing and cleats. Agency D also reported that five per cent of households surveyed noted that they had a large family (of more than five people) and that the shelter size was not adequate for them.

Respondents to Agency E's post-distribution survey in Samar reported that the size and quality of their shelters was 'average' rather than 'very good' prior to the typhoon. This had improved from 'bad' (size) and 'very bad' (quality) immediately after the typhoon with almost 90 per cent of households attributing this improvement fully (28%) or partially (around 60%) to Agency E's intervention. However, the organisation noted that 'many families were unable to construct shelters or make repairs which ensured safety from future storms and many were still a long way off regaining the level of comfort and security they experienced before the disaster... evidence of the use of desirable building techniques was minimal'.

Agency F reported on households perception of safety (reported in the following section) rather than the size, safety and durability of the shelters constructed.

### **Household knowledge about Build Back Safer (BBS) techniques**

Three of the programmes (A, C and D) reported significant positive effects on household's knowledge about safer construction techniques. Households were able to apply their new knowledge on safer construction to undertaking repairs on their own homes or supervising the performance of hired labourers.

The Shelter Cluster provided tips for Building Back Safer in December 2013 (see figure 9) and these were developed into '8 Build Back Safer Key Messages' by May 2014 (see figure 10). Each organisation adapted these messages for their own training – either by emphasising specific

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<sup>xiv</sup> The definitions of safe, adequate and durable used were... Safe (Feeling safe from the flood in their new/ repaired house, feeling safe from the earthquake in their new/repaired house and feeling safe from Typhoon (signal II) in their new/ repaired house). Adequate (They have adequate space for all members of the family and the new, or repaired shelter accommodate the mobility requirements of a vulnerable group (if any)). Durable (Their shelter will remain standing for four years if no major typhoon hit the area, easily extendable and easily upgradable).



messages or adding additional messages – depending on the context in the communities they were working or the timing of their programme in relation to the stage of the response. Consequently, each programme had different results:

- Agency A found that households were well aware of 'the importance of strong foundations (97%), secondary connections (91%), and cross-bracing (97%)' but significantly less well aware of safe housing shapes.
- Agency C reported that 73-84 per cent of households surveyed had learned the four main safer construction messages the programme had concentrated on (adequately connecting roof sheets to the structure, steel strapping, bracing and anchored foundations) while 65-72 per cent felt that they had applied them in practice. Two additional messages (choosing an appropriate roof pitch and safe location) had been learned by 60-67 per cent of households surveyed and applied in practice by 56-58 per cent. However, the organisation noted that 'partner staff, roving team members and carpenters could have been given training that went beyond how to apply safer building measures and also covered why these measures mattered. A lack of understanding of this resulted in some buildings having flaws in the structural arrangement (such as trusses not aligning with columns below) despite good application of the safer building measures'.
- Agency D's beneficiaries 'recalled the importance of preparation, safe location, tie methods, and roof shape more than the importance of joints and a safe shape'.

Figure 9: Shelter Cluster Tips to Building Back Safer (8 December 2013)<sup>42</sup>

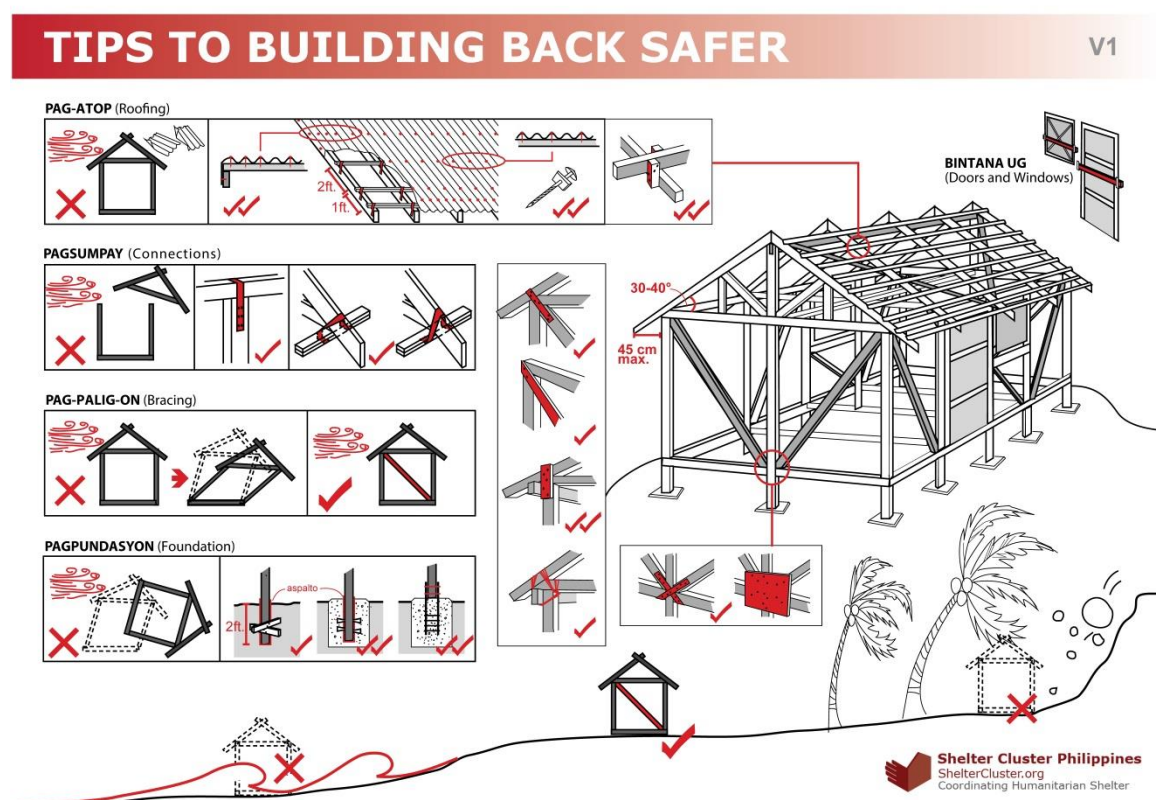


Figure 10: Shelter Cluster 8 Build Back Safer Key Messages (19 May 2014)<sup>43</sup>

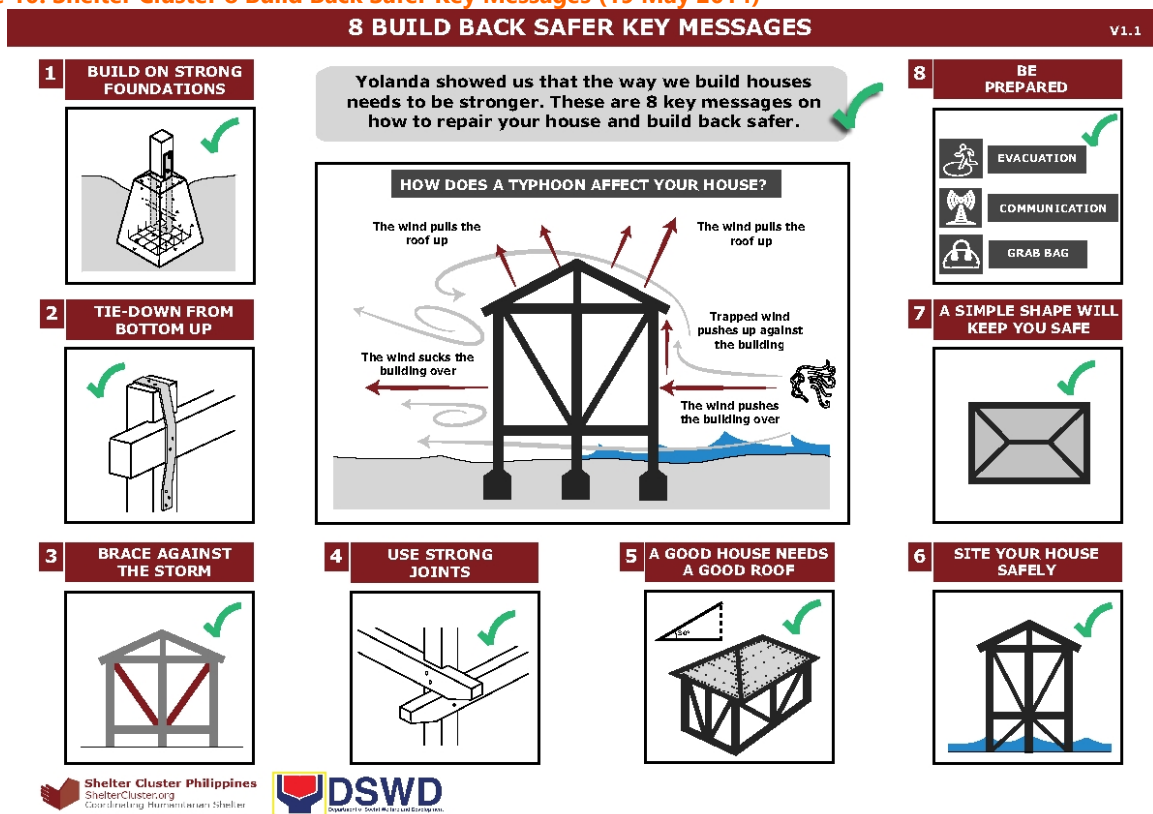


Table 4: Summary of outputs at household-level

Implementing agency	Completion rate	Size, safety and durability of shelters	Knowledge about BBS techniques
<b>AGENCY A</b>	91 per cent completion rate. 9 per cent of households did not use the financial assistance provided on construction (and were therefore excluded from further phases of the programme)	'62% of houses were classified as "Good", 33% of houses were classified as "Fair", 4% were classified as "Poor", and 1% were classified as "Very Poor".'	Households were well aware of 'the importance of strong foundations (97%), secondary connections (91%), and cross-bracing (97%)' but significantly less well aware of safe housing shapes.
<b>AGENCY B</b>	Not reported	The programme 'did contribute to helping people waterproof and strengthen their partially damaged homes' and households reported 'having more space and comfort' than before the typhoon. However, the organisations technical assessment found '94% of roofs assessed as weak or very weak due to the lack of knowledge in build back safer by carpenters. In addition, 80% of walls still needed bracing and 80% of columns required treatment. Similar problems existed in other structural components'.	Not reported
<b>AGENCY C</b>	92 per cent completion rate and 'nearly everyone has completed their houses to an adequate level – where 'adequate' is defined as being substantially finished with secure roof and walls as well as complying with the Build-Back-Safer messages'	'The new houses were considered by the beneficiaries to be a substantial improvement' on their pre-typhoon homes... 'there was generally a good uptake of the main build-back-safer measures' however, 'there was quite considerable variation in the technical quality achieved'.	73-84 per cent of households surveyed had learned the four main safer construction messages the programme had concentrated on while 65-72 per cent felt that they had applied them in practice. However, 'a lack of understanding of [the BBS measures] resulted in some buildings having flaws in the structural arrangement (such as trusses not aligning with columns below) despite good application of the safer building measures'.
<b>AGENCY D</b>	96.5 per cent completion rate. 507 shelter beneficiaries (and 139 toilet beneficiaries) were dropped from the programme after receiving the first tranche of financial assistance because they 'left the program, didn't use the cash received on intended purposes [or] went to other place without finishing the program'. This represents a drop-out rate of around 3.5 per cent.	73 per cent of households which received SSSR felt their shelters were safe, adequate and durable. In addition, households reported 'that the shelter built all withstood Typhoon Ruby (Dec 2014)... This was mostly accredited to the use of BBS techniques' such as foundations, bracing and cleats.	Beneficiaries 'recalled the importance of preparation, safe location, tie methods, and roof shape more than the importance of joints and a safe shape'.
<b>AGENCY E</b>	Around three months after distribution approximately 92 per cent of households had used the assistance to repair or rebuild their shelters, around 5 per cent of shelters were under construction, while around 3 per cent had not yet used the materials.	Beneficiaries reported that the size and quality of their shelters was 'average' rather than 'very good' prior to the typhoon. However, 'many families were unable to construct shelters or make repairs which ensured safety from future storms and many were still a long way off regaining the level of comfort and security they experienced before the disaster'.	Not reported
<b>AGENCY F</b>	One year after material distribution 40 per cent of households had completed the repairs to their houses.	Not reported	Not reported



### *Household-level outcomes*

Household-level outcomes noted in the studies included household (see Figure 1: Theory of Change):

- Perception of safety and security.
- Income, expenditure, assets or debts.
- Physical and mental health.
- Dignity, empowerment and self-reliance.<sup>xv</sup>

There was no consistent set of indicators used by the different agencies to measure project outcomes, nor a consistent approach or methodology. Some agencies reported on community-level outcomes and these are described in box 2.

### **Perception of safety and security**

All six of the programmes reported positive effects on this outcome as a result of households living in more robust and weatherproof houses, in safer locations, and not having to walk so far or at night to collect water from a communal tap.

Two of the documents (B and E) reported that people's own perception of the safety of their homes differed from the results of a technical assessment, while a third (Agency C) noted that people's perceptions differed between rural and urban areas. For example:

- Participants in Agency B's programme reported 'feeling safer and more comfortable especially against harsh weather as their house is now firm and re-built... [although] People's perception of 'firm' is different to that of [Agency B] shelter team's evaluation of 'safe' (see Table 4).
- Most of the respondents to Agency E's post-distribution survey 'reported feeling safer and more secure, at least in part because of the project, but evidence of the use of desirable building techniques was minimal'.
- Agency C found that 'the new timber houses were not seen to be as strong, or as durable' in 'low-land, more peri-urban barangays where previously houses had been largely built of concrete blocks'.

Agency F reported that around two-thirds of households felt they were 'fully prepared to deal with the adverse effects of a forthcoming major disaster' following the organisations intervention. However, 'of the households that did not feel they were fully prepared to deal with a future typhoon or major disaster, 80% reported needing stronger, disaster-resistant shelter in order to be better prepared.



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<sup>xv</sup> Six categories of outcomes were identified in the author's previous research into SSSR (see Appendix 1). Of these – two have been combined into one ('income or livelihoods' and 'assets or debts') while one has been moved to outputs ('knowledge about safer construction').

### **Income, expenditure, assets or debts**

Five of the programmes (B, C, D, E and F) reported reduced household expenditure and/or increased assets and disposable income. This was a result of:

- Being under 'less financial stress due to assistance from multiple sources'.
- 'Reduced expenses in home repairs'.
- Being able to 'focus their limited income on household food needs and other priorities, such as health and education' after receiving relief goods and shelter assistance.
- 'The tools and materials provided... [adding to] the household asset base'.
- Being 'able to buy household items and appliances from the money left over after completing each of their construction milestones'.

### **Physical and mental health**

Three of the programmes (B, D and E) reported positive effects on household physical and mental health. The evidence was fairly limited though, with reported effects such as 'sleeping better', reduced back pain as they don't need to carry water a long distance, and relief from post-traumatic stress through purchases to entertain themselves.

### **Dignity, empowerment and self-reliance**

Two of the programmes (C and D) reported positive effects on household dignity, pride, and self-reliance. This was a result of:

- Being provided 'with the tools they needed to take charge of building their shelter and toilets, building their capacities on build back safer, hygiene promotion, and legal rights'.
- Being provided with identification cards and receiving cash grants through Palawan Express.
- 'Pride in learning... new skills [which enabled them to] monitor effectively labour performance by looking for these techniques'.
- Pride in 'what they had achieved' and that their houses 'were 'more beautiful' than before'.

Agency C also highlighted that:

- 'There were aspects of the programme which were empowering to women. Ensuring the whole community, including women, learnt about the build-back-safer messages at the general assemblies allowed women to act as informed clients where they employed carpenters, or to encourage the men in their household to correctly apply the measures. A small number of women took either an active part in, or a leading role in, reconstruction of their houses. This was clearly unusual given normal gender roles in the communities, and has served as a positive example of women being able to successfully depart from stereotypical roles.'

### Box 2: Community –level outcomes

Community-level outcomes reported in the studies included:

- a **positive impact on the barangay as a whole** (A).
- **knowledge of safer construction techniques** 'being spread beyond just the houses of the direct recipients' which 'would be transmitted to the next generation' (C).
- increased **resilience to future shocks** (D and F).
- **improved communal spaces** following repair of drainage infrastructure (D).
- positive **economic impacts** as households spent the cash provided on purchasing and transporting materials and hiring local labour (D).
- improved **social relations, organisation and empowerment** as a result of: working in clusters; and receiving training on HLP and governance (D).

Table 5: Summary of outcomes at household-level

Implementing agency	Perception of safety and security	Income, expenditure, assets or debts	Physical and mental health	Dignity, ownership and self-reliance
<b>AGENCY A</b>	In answer to the question 'Do you feel that your house is strong enough to withstand a future typhoon as a result of the program? 42% responded yes, 37% responded no, 21% responded "don't know'.			
<b>AGENCY B</b>	Participants reported 'feeling safer and more comfortable especially against harsh weather as their house is now firm and re-built'.	To a limited extent, participants noted 'less financial stress due to assistance from multiple sources' and 'reduced expenses in home repairs'.	Some participants reported 'sleeping better, especially during storms and rains'.	
<b>AGENCY C</b>	Households rated their safety and security as slightly better than before the typhoon - although it had been bad immediately afterwards. More than 75% of households interviewed felt that this improvement was partially or fully a result of Agency C's intervention.	Households rated their household income as similar to before the typhoon – although it had been bad immediately afterwards. More than 70% of households interviewed felt that their livelihood recovery was partially or fully a result of Agency C's intervention.		'In the majority of communities there is a strong sense of 'ownership' and 'there was considerable pride in the shelters that had been constructed'. 'There were aspects of the programme [such as BBS training] which were empowering to women'.
<b>AGENCY D</b>	Agency D's integrated shelter/WASH programme provided an increased feeling of safety and security to families.	'According to the program staff, some beneficiaries were able to buy household items and appliances from the money left over after completing each of their construction milestones'.	Households with elderly members 'said that they no longer need to haul water from a long distance which reduces their back pain'. Others reported that 'some household purchases helped them to entertain themselves and relieve their stress from their traumatic experience'.	'The program empowered community members; including vulnerable households and women' and enabled them to 'to take charge of their own recovery and helped speed their return to normal life'.



<b>AGENCY E</b>	Most of the respondents to Agency E's post-distribution survey reported 'feeling safer and more secure, at least in part because of the project'.	Households rated their household income prior to the typhoon as 'very good', then 'bad' after the typhoon although they had recovered to 'good' at the time of the survey. Almost 70% felt that their livelihood recovery was partially or fully a result of Agency E's intervention.	Households rated their physical and mental health prior to the typhoon as 'very good', then 'average' after the typhoon although they had recovered to 'good' at the time of the survey.	
<b>AGENCY F</b>	Around two-thirds of households felt they were 'fully prepared to deal with the adverse effects of a forthcoming major disaster' following the organisations intervention.	'Most households [felt the relief goods and shelter assistance was] an important contributor to their ability to meet the top household expense [food]... In addition, the tools and materials provided... are part of the household asset base'.		





### 3. Process of implementation



#### 3.1 What were the primary contributions of households?

Household contributions mentioned in the documents include **time spent**:

- **Attending meetings and training**; all of the interventions required households to attend meetings, briefings or training – these ranged from half a day to a day (see table 2).
- **Transporting materials home from the distribution point**; Agency E reported that around half of the households were able to carry materials home from the distribution point on foot while the rest borrowed or hired vehicles such as bicycles, three-wheelers or jeeps.
- **Building their own shelters**; Agency C found that around 15 per cent of households built their own shelters with the help of friends and family, while a further 15 per cent relied on *bayanihan*<sup>xvi</sup>. Agency E also found that around 20 to 40 per cent of households 'opted to do the work alone because they do not have money to pay for the labour, or that there is a member of the household who is a carpenter'.
- **Supervising construction and monitoring progress**; Agencies A and F reported that households supervised and monitored construction progress - both if they built their own homes or hired labour.

All of these activities required the time of one or more family members and therefore resulted in a potential loss of income. This was not typically quantified in the documents – although Agency D estimated that one day attending training or transporting materials had a cost in terms of lost income of around 500 Php per person per day<sup>xvii</sup>.

<sup>xvi</sup> The Bayanihan (pronounced as buy-uh-nee-hun) is a Filipino custom derived from a Filipino word "bayan", which means nation, town or community. The term bayanihan itself literally means "being in a bayan", which refers to the spirit of communal unity, work and cooperation to achieve a particular goal. <https://themixedculture.com/2013/09/25/filipinos-bayanihan/>

<sup>xvii</sup> Official figures indicate that the minimum wage in regions VI, VII and VIII of the Philippines in November 2017 was 245-366 Php/day [http://nwpc.dole.gov.ph/pages/statistics/stat\\_current\\_regional.html](http://nwpc.dole.gov.ph/pages/statistics/stat_current_regional.html)

Households also provided **financial and material contributions** such as:

- **Paying for transportation of materials;** Agencies D and E estimated that households spent up to 200 Php on transportation of materials.
- **Paying for skilled or unskilled labour;** three organisations (A, C and E) reported that households hired labour – either to supplement household labour or construct the shelter on their behalf. Agency E reported that 21-24% of household hired labour while Agencies A and C reported approximately 50%. Agency E reported that households typically paid up to 5,000 Php for assistance in construction or construction of a whole shelter.
- **Buying additional materials;** Agency E found that 20 to 58 per cent of households had purchased materials - typically more of the same materials provided in the shelter kits. Households typically spent up to 5,000 Php on additional materials.
- **Salvaging materials from destroyed or damaged houses;** for example Agency E and Agency D report that families combined salvaged materials with the material assistance provided.
- **Providing a storage place for materials during distribution and construction;** Agency F noted that 'storage spaces for the materials during distribution and construction was provided by the barangay and the community as a whole was responsible for the safety of the materials'.

### 3.2 Programming: what worked well and what was not as effective?

#### *Undertaking adequate assessments and regular monitoring to inform programme design*

The interventions included a variety of assessments at both the outset of the programme and during implementation. For example:

- Baseline or needs assessments (Agencies C, D and F).
- Assessments of the markets and supply chains for construction materials (Agencies D and F) - see section 3.3, for further discussion.
- Damage assessments of original house (Agencies D and F).
- Environmental assessments (Agency D).
- Site protection and precautionary measures (health and safety) (Agency F).
- Feedback and communications with beneficiaries (Agency D).

Assessment processes varied and were more or less formal, one-off or continuous, depending on the focus of investigation. For example:

- Agency D undertook a 'rapid assessment of the market for lumber and other relevant construction materials' approximately three weeks after the typhoon. This informed its decision to directly supply key construction materials that were not available in local markets in sufficient volume and quality (such as CGI sheeting).
- Rather than a formal or one-off assessment of government policies Agencies C and E noted that close coordination and good communication with the local government was an important aspect of managing potential programme risks.



Regular monitoring during construction provided an opportunity to reflect on and adapt programme implementation. For example, Agencies C and E both introduced 'top-up' programmes or cash transfers to respond to remaining needs. Agency D also improved their training<sup>xviii</sup> following a household survey that showed a poor retention of the key 'Build Back Safer' techniques.

The documents highlighted the following lessons learnt or recommendations:

- Damage assessments can be complex. Agency F agreed a definition of 'totally damaged' with communities and worked with them to agree which households qualified for assistance. On the other hand Agency D recommended that damage assessments should be undertaken by engineers rather than volunteers – particularly if damage assessment informs beneficiary selection because communities need to have complete confidence in the beneficiary selection process.
- Construction activities can lead to injury or death if tools or materials are used incorrectly. Recognising this Agency C highlighted that agencies have 'a duty of care ... to understand the risks of construction and manage them appropriately' through a structured risk assessment process and provided households with leaflets on safety during construction. Agency F provided training for carpenters and community workers on health and safety. Health and safety was also monitored during construction with follow-up actions taken.
- Assumptions that are made to inform programme design (for example about whether people will repair damaged properties or reconstruct) should be 'validated as soon as possible' so that adaptations can be made if necessary.
- 'Promote community-led input to design phase, and establish community-based monitoring to feedback into the context analysis that informs adaptive changes'.
- Conduct environmental assessments (including investigation of the water table, soil type and risk of flooding) before distributing cash or materials so that 'guidance and training on the most resilient shelter and toilet designs can be given to engineers, foremen, carpenters and beneficiaries during pre-construction meetings' and so that delays, quality concerns, negative environmental impacts and beneficiary dissatisfaction can be avoided.

### *Developing a clear and simple plan*

Two agencies (C and D) noted that having a 'clear strategy in place from the beginning' with 'simplicity of the program goals and methodology' gave clarity and direction, and contributed to a high level of programme efficiency. Agency D also noted that the inclusion of an exit strategy from the outset helped to ensure a smooth transition and handover of the activities to the communities after the program ended. The exit strategy included:

- Working with the City Housing Office throughout the programme.
- Drafting a Memorandum of Understanding (MoU) between the agency and Barangay Council with responsibilities for the Barangay Councils after the completion of the programme.
- Holding a 'hand-over ceremony'.
- Formally meeting with the Mayor to close out the project.<sup>xix</sup>

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<sup>xviii</sup> This included the addition of a secondary training for beneficiaries in the 'Build Back Safer' techniques using real-life photographs of 'good' and 'bad' construction, as well as the addition of further training sessions throughout the programme implementation (e.g. pre-construction meetings, after release of first stage of cash payment etc).

<sup>xix</sup> Agency F adopted a similar approach. Its exit strategy also included agreement with: beneficiaries with regard to their ongoing responsibilities and the Barangay Council to ensure future construction incorporates BBS techniques.

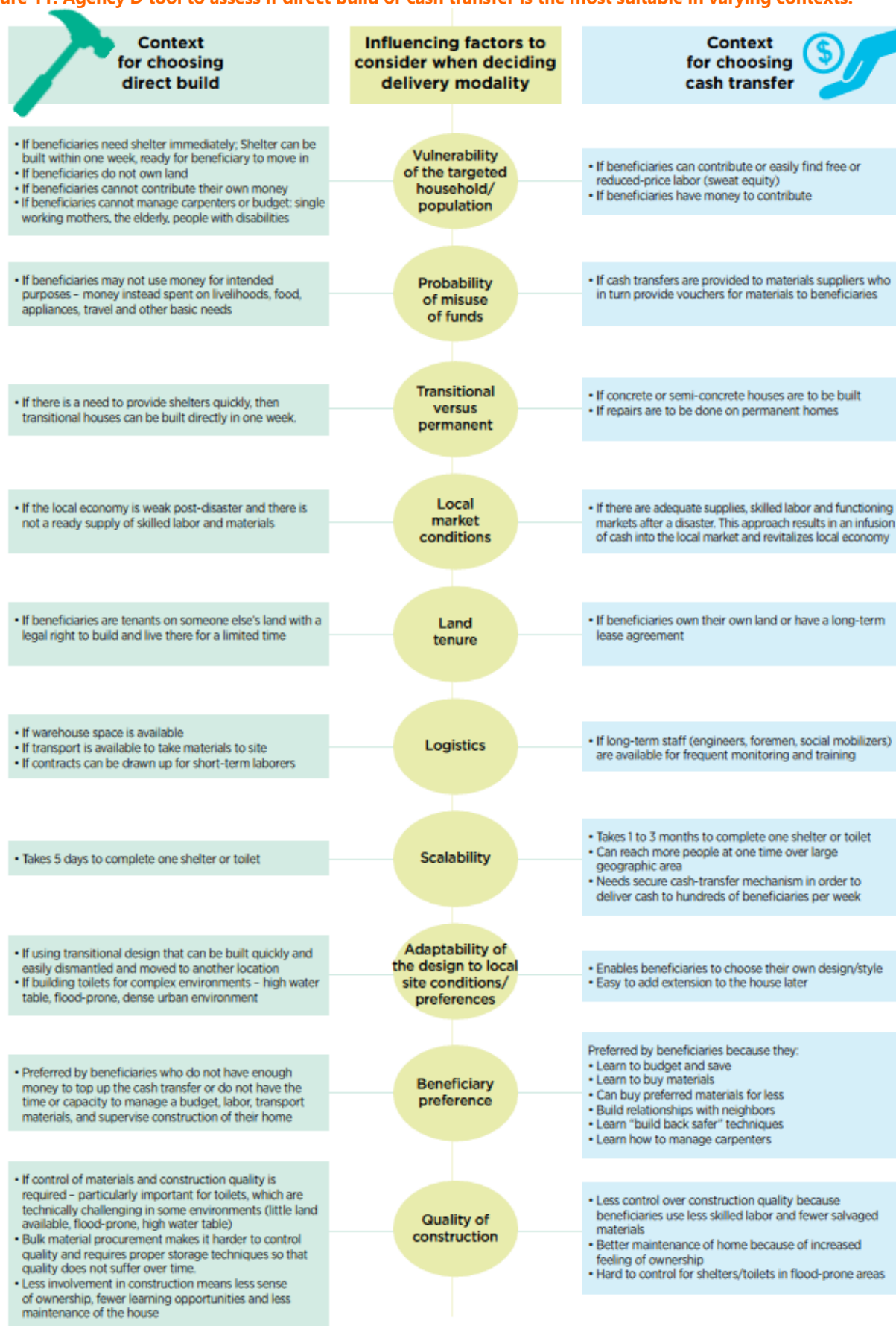
### *Designing a programme that meets the changing context and needs of households*

All of the agencies noted that flexibility in programming was necessary to respond to the changing context and needs of households – particularly the most vulnerable. Examples of flexible programming included:

- a) **Proactive:** providing different households with different packages of assistance at the beginning of the programme. For example:
  - Allowing households to choose between direct build or SSSR approaches (Agency D).
  - Providing additional cash assistance to more vulnerable households (Agency A).
- b) **Reactive:** making adjustments during implementation based on monitoring or household/community feedback. For example:
  - Providing 'top up' assistance in the form of cash (Agency C) or materials and labour (Agency E).
  - Coordinating with other agencies via the Shelter Cluster to ensure that outstanding needs are met (Agency F).
  - Improving and updating training and awareness raising activities (Agency D).
  - Redefining and clarifying the beneficiary selection process (Agency B).
  - Improving the design of the house or materials provided (Agency D).
  - Allowing material assistance to be used for shelters rather than toilets if required (Agency F).
  - Allowing financial assistance to be spent on more urgent needs (such as food or healthcare) rather than shelter if required (Agency C).

Critical to the ability of agencies to take a reactive approach was an adequate monitoring process (see above), two-way communication with beneficiaries (see below) and the support of their colleagues in head office and donors. Agency F noted that although the organisation was aware beneficiaries required additional support it was not able to secure additional funding in order to meet these needs. Agency B found that waiting for authorisation or for decisions to be made in head office in Manila caused delays and reduced opportunities for flexible programming.

**Figure 11: Agency D tool to assess if direct build or cash transfer is the most suitable in varying contexts.**





### Box 3: How did the programmes adapt to urban or peri-urban contexts?

Five of the interventions supported some households in urban or peri-urban areas. For example, Agency D ran a specific sub-programme targeting densely populated areas in central Tacloban and some peri-urban areas in Palo; Agencies A and F supported some peri-urban households in Tacloban; Agency F worked in Ormoc; Agencies B and C targeted some households in peri-urban areas in Iloilo.

#### Agency A

In Tacloban Agency A found that households required 25% more financial assistance than the overall average. The evaluation suggested that was potentially because of higher construction costs in urban areas and higher levels of damage due to the storm surge.

#### Agency C

Agency C found that households were less satisfied with the quality of reconstructed houses in lowland peri-urban areas because 'previously houses had been largely built of concrete blocks, and the new timber houses were not seen to be as strong, or as durable'. The organisation's 'roving teams' of carpenters providing technical assistance also 'found it more difficult to commit the time [in peri-urban areas] as it meant giving up on time spent earning money'.

#### Agency D

In addition to its standard integrated shelter/WASH programme, to meet the needs of affected households in Tacloban Agency D also needed to:

- Develop additional support options for families living in the no-dwelling zone (NDZ). These included support to: rent land; rent a house or apartment; or stay with a host family.
- Provide training on protection issues, governance, and housing, land and property rights.
- Undertake Community Action Planning workshops.
- Implement settlement-level infrastructure projects such as connecting household taps to municipal water systems and repairing or reconstructing the seawall, drainage canals, paths.
- Establish four small transitional relocation sites close to the barangays of origin to minimize disruption to livelihoods, education, and existing social support system.

In general Agency D asked communities to self-organise into groups of 10 households. This was intended to encourage households to work together because all 10 households had to complete each phase of construction before receiving the next tranche of the cash grant. However, this approach did not work in Tacloban and was discontinued. This was largely because of the diversity of shelters in urban areas – lightweight shelters next to two-storey masonry houses. For households with masonry houses prior to the typhoon the support provided was not sufficient to rebuild in masonry. They preferred to wait several weeks or months to save the money required to re-build in masonry but this negatively affected other households 'who were reconstructing the Agency D model shelter'. One beneficiary also suggested that the "spirit of communal unity" is less common in urban areas where neighbours may not know or trust each other as much as in rural areas.

### *Developing clear and simple beneficiary selection criteria and transparent selection processes*

Beneficiary selection criteria differed between the six programmes (see table 5) with programmes which started implementation earlier having simpler processes than those which started later. In general, beneficiaries were selected based on their level of vulnerability, or the level of damage to their home (Agencies B and D). Three programmes (A, C and F) took a mixed approach - selecting beneficiaries on the basis of damage to previous home and level of vulnerability; and one programme (Agency E) selected areas that were the first hit by the Typhoon and the most topographically exposed and applied an almost 'blanket approach'. Overall, regardless of the approach, the studies report a degree of community dissatisfaction in the beneficiary selection process and a number of recommendations for improvement:

- Agency B (which selected beneficiaries solely on the level of damage) intended that the newly formed Barangay Recovery Committee would develop the beneficiary selection criteria but 'this failed' because of confusion around the role of the Barangay Recovery Committee. Instead, the programme team relied more heavily on surveys (particularly housing damage assessments) in some areas, with limited consideration of vulnerability. This led to community dissatisfaction – with 64 per cent of survey respondents stating that beneficiary selection was 'totally unfair' while 27 per cent found it 'mostly unfair'.
- Agency C (which used simple criteria to select beneficiaries on their level of vulnerability and damage to their home) reported dissatisfaction because some individuals 'felt everyone should have received assistance or assistance should be based on the damage done by the storm only, and not on the capacity of the household to recover'. The organisation also found while most partners were able to apply the selection approach one of its local partners adjusted the beneficiary selection criteria due to variation in levels of vulnerability – leading to variations between geographic areas. Finally, in order to provide 'top-up' funding Agency C ran a second round of beneficiary selection. There was not enough funding to provide 'top-up' assistance to all households and this 'caused tensions in several communities' because it was seen as 'rewarding those not able to complete shelter [while] punishing those who were able to recover'. Practically, it was also 'a lot of work and not efficient'.
- Agency D (which selected beneficiaries solely on the level of damage) noted that the provision of assistance to households with 'minor damage' to their homes led to 'the inclusion of relatively less vulnerable families, particularly in peri-urban areas, that could have self-recovered on their own'. This meant that some families built much more permanent houses than had initially been envisaged while others were difficult to engage if shelter was not their priority. Agency D recommended more nuanced beneficiary selection criteria alongside a tiered system of support – so that more vulnerable families receive higher levels of support.
- Agency E (which provided assistance to almost all households within a given area) also received some feedback that the blanket approach was 'perceived negatively by some who felt they were in greater need and therefore required more materials than others'.

Two agencies (C and F) developed selection criteria in partnership with communities and community leaders with validation by the organisation. Agency C found that a simple community led process for beneficiary selection, coupled with community committees and feedback mechanisms, was fairly straightforward and led to rapid implementation with limited complaints. Agency F noted that its community-driven beneficiary selection process had a positive effect because it 'ensured a coordinated and equitable approach' and 94% of beneficiaries were satisfied with the selection process. The selection criteria for this programme was also the most nuanced, and included

additional vulnerability categories such as households 'whose means of livelihood has been greatly destroyed' – see table 6.

After developing the beneficiary selection criteria a beneficiary list was then compiled by the implementing agency, local partner organisations, local government or a community committee (see table 5). Most of the programmes undertook a validation process with the communities - with lists of potential beneficiaries posted on notice boards and other prominent areas within the community for comment and feedback. This process was noted as important for transparency, for accountability, and because it 'promoted community involvement and allowed beneficiaries to take ownership of the process'.

**Table 5: Summary of beneficiary selection process**

Agency	What was the basis of eligibility?	Was there a damage assessment?	How was the beneficiary list compiled?
<b>AGENCY A</b>	Level of vulnerability Level of housing damage	Yes	Vulnerable households identified by the M&E team; list provided to the shelter team to undertake technical assessment of housing damage; final beneficiary list verified by community (posting of list on notice board)
<b>AGENCY B</b>	Level of housing damage	Yes	Unclear. Seems some communities selected through a 'Barangay Recovery Committee' and in others Agency B staff 'selected people through surveys, mostly housing damage surveys. [Agency B staff] with Barangay officials then developed and updated lists of selected beneficiaries, to be refined and validated by [Agency B]'
<b>AGENCY C</b>	Level of vulnerability Level of housing damage	Yes	Community 'beneficiary selection committee'; final beneficiary list verified by community (meeting and posting of list on notice board)
<b>AGENCY D</b>	Level of housing damage ('essentially blanket coverage')	Yes	Agency D 'worked with barangay officials to generate an initial list of households whose shelters sustained damage'; final beneficiary list verified by community (posting of list on notice board)
<b>AGENCY E</b>	Blanket coverage	No	'Beneficiary lists were produced by the local government officials and were not subjected to any further verification by the project team'
<b>AGENCY F</b>	Level of vulnerability Level of housing damage (total) Households not receiving aid from other sources Households whose 'means of livelihood has been greatly destroyed'	Yes	Community 'beneficiary committee'; final beneficiary list verified by community (meeting(s) and posting of list on notice board)



**Table 6: Example vulnerability criteria used by Agencies A, C and F**

Households who are/have...
Members with disabilities
Woman-headed
Members who are pregnant/lactating
Child-headed
Members who are sick/terminally ill
Members under 5 years old
Members who are elderly (e.g. over 60 years old)
Members who are 'malnourished children'
Members who are 'indigenous people'
Five or more members
Living in poor physical and health conditions
A monthly income less than 10,000php
Members who are women
Members who are 'internally displaced people'
Members 'whose means of livelihood has been greatly destroyed'
Not receiving same/comparable assistance from other sources

### ***Supporting coordinated community involvement and adequate two-way communication***

Agency C noted that approximately 15 per cent of shelters were built using *bayanihan*. This supported the most vulnerable households and resulted in a higher quality of construction and fewer unfinished homes. However, the use of *bayanihan* varied between communities: in some it was not used at all, while in others recipients of community assistance were required to pay for labour (at a reduced rate). Agency F recommended that community strengths and capacities are assessed at the outset and incorporated into programme design.

Two organisations (C and D) clustered households into groups of around 10:

- Agency D required all households in each group to complete a specific stage of construction before receiving the next cash tranche. In theory this was to prevent vulnerable households being left behind and prevent misuse of funds. In practice this caused delays because some households wanted to save funds and delay construction until they could build larger more permanent shelters – as a result the clustering approach was discontinued.
- Agency C found that clustering households was largely successful because it helped share 'the burden of construction [and ensure] that the homes of vulnerable families were given priority'. Agency C did not experience the delays that Agency D reported – this is perhaps because they only made one payment to households.

Several agencies (B, C, D and F) reported that two-way communication with communities increased household satisfaction and accountability. Useful communication mechanisms included face-to-face discussions with staff, volunteers or barangay officials, general assembly meetings, 'gossip', calling or texting, suggestion/feedback boxes, radio and social media (Facebook). Areas for improvement

around communication included identification of focal points, greater clarity when translating agency concepts to the community (e.g. 'participation') and additional use of community action planning activities to build rapport.

### ***Delivering adequate material, financial and technical assistance***

Overall the interventions delivered adequate material, financial and technical assistance to support the majority of households to construct shelters. However, there were several examples where inadequate assistance caused delays, reduced the quality of construction, and resulted in households being unable to complete their homes.

In some cases households were able to contribute additional time, cash or materials and this improved the quality of outputs. For example, following typhoon Hagupit/Ruby in December 2014, Agency D changed their recommended roof shape from a gable to a hipped roof. Some households were able to incorporate this new design into their shelters 'even though the cash received was not enough to build this type of roof'.

On the other hand, the most vulnerable households were unable to contribute additional time, cash or materials and required additional support. In some cases vulnerable households received *bayanihan* support from the community but where vulnerable households did not receive additional support from either the community or the implementing agency this typically resulted in lower construction quality, delays and incomplete shelters.

Agency C highlighted that this was an important area for improvement: 'particularly vulnerable people, such as single elderly people or mentally disabled people with no income, community or family support, in communities where the *bayanihan* approach was not successful, were still living in very poor and undignified circumstances. This is a small number of people, but [although the needs of very vulnerable people were known and understood] programme staff were not sufficiently aware of the possibility to adjust support to meet their specific needs.'

### **Material assistance**

Agency C reported poorer quality of construction in barangays where material assistance 'did not include hurricane strapping, nails and tools' or where households were 'not able to obtain hardwood for the columns, as is normal practice elsewhere, so had built houses with coco-lumber in contact with the ground'. Agency C also highlighted that tools (such as shovels, machetes, levels, plumb-bob, tape measures, set squares, planes and chisels) enable households to dig foundations, make strong connections and construct their shelters accurately. Limited access to these tools caused delays as communities had to share. Agency C recommended that hard to purchase or expensive materials (such as good quality fixings and cyclone strapping) should be provided directly to households as they are unlikely to source them themselves.

Around 60 per cent of households which received assistance from Agency F had not used the materials provided for shelter repairs a year after distribution. The majority of these households (93 per cent) had stockpiled the materials with 51 per cent reporting insufficient materials and the lack of capacity to pay for labour as their reasons for not yet starting construction. 58 per cent of households who had not used their materials for toilet repairs had used them to repair their shelters while 'a number of beneficiaries... sold some of the materials used the proceeds to buy additional materials for shelter repair'. Agency E also reported that the 'materials supplied did not meet beneficiaries' total needs to complete repairs/rebuild'.

### Financial assistance

In three interventions (C, D and F) vulnerable households (including large families and households whose homes were destroyed) reported that the financial assistance provided was inadequate. Agency C reported that households needed to use their cash grants for more urgent needs – such as food and healthcare. While Agency F noted that lack of materials and capacity to pay for labour was a key cause of delays. Agency D found that the majority of households which ‘dropped out’<sup>xx</sup> of its programme had ‘totally damaged’ houses - indicating they found it hard to complement the agency assistance with their own labour or funds.

### Technical assistance

Agency E noted that the households did not consider displaying BBS messages on leaflets or noticeboards as training, and consequently the technical assistance was ‘insufficient to affect lasting resilience’. Participants in training described as ‘community level briefings’ (Agency E) or ‘general assemblies’ (Agency C) often ‘struggled to explain it or give examples’. While participants in more in-depth training felt it ‘had a huge impact on the overall construction process’ (Agency D) and that they are ‘prepared to face another major disaster because they have increased awareness of how to mitigate the impact’ (Agency F).

Poor quality construction in Agency B’s programme was attributed to ‘limited sharing of information on how to ‘Build Back Safer’ including inadequate [distribution of] IEC materials<sup>xxi</sup>, low engagement of build back safer champions, or appropriate levels of technical support around distribution & monitoring’. Agency C reported that in areas where more technical support was provided higher and consistent construction standards were achieved.

Two programmes (C and F) reported that households had learned BBS techniques but not yet put them into practice due to household ‘income and livelihoods issues’ or ‘priorities, resources and capacity’. This illustrates the critical link between the adequacy of assistance provided and the capacity of households to use it (see section 3.1).



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<sup>xx</sup> i.e. were excluded from receiving the next tranche of assistance because they did not meet the requirements of the previous phase

<sup>xxi</sup> Such as the Shelter Cluster Build Back Safer Key Messages (see figure 10).



**Table 6: Summary of technical assistance provided and knowledge retained and applied**

Agency	Technical assistance provided	Knowledge retained and applied
<b>AGENCY A</b>	BBS posters BBS training: beneficiaries House-to-house monitoring	67% of households were aware of 9+ of the 12 key messages in the SST training... 94% of households 'felt they had improved their knowledge as a result of the SST training'
<b>AGENCY B</b>	BBS training: trainers BBS posters	'beneficiaries are generally unaware of the 8 safe shelter messages and the strategies promoted have not been consistently adopted'
<b>AGENCY C</b>	BBS briefings: communities House-to-house monitoring Leaflets on construction safety BBS posters	73-84% of households surveyed had learned the four main safer construction messages while 65-72% felt that they had applied them in practice
<b>AGENCY D</b>	BBS + HP training: beneficiaries House-to-house monitoring BBS posters	87% of survey respondents retained knowledge of 5+ of the 8 key messages in the BBS training
<b>AGENCY E</b>	BBS briefings: communities BBS posters	'evidence of the use of desirable building techniques was minimal'
<b>AGENCY F</b>	BBS posters BBS training: communities BBS training: carpenters BBS training: trainers	'nearly three-quarters of surveyed shelter beneficiaries having completed training reported knowledge on shelter repairs that would mitigate the risk or impact of future typhoons, and of those with that knowledge, approximately half said they already enacted certain measures in their repairs'

### 3.3 Context: what factors helped or hindered implementation?

Four organisations (Agencies C, B, D and F) highlighted that **the experience and capacity of the implementing agency and its partners** had a negative effect on implementation. Lack of staff with skills and experience in shelter, logistics or community facilitation led to over-stretched staff, over-reliance on partners, lack of technical oversight, poor community engagement and delays in implementation. Although agencies C, D and F recruited additional staff the process was slow and new staff lacked experience. Agency D found that sub-contracting key community engagement activities (such as Community Action Planning) meant Agency D missed an opportunity to build relationships with communities directly. Agency C found that working through local partners was 'a positive was to deliver the programme' which led to a high-quality, fast and efficient response with 'very good reach, beneficiary selection, accountability, participation, beneficiary ownership and uptake of build-back-safer measures'. However, the agency noted that working through partners 'is not necessarily cheaper' and recommended that future programmes allocate additional time to building the capacity of partner organisations which may not have experience of humanitarian work or shelter.

One organisation (Agency F) noted that the **nature and strength of their pre-existing relationships** and lack of pre-positioned goods and contracts -for procurement of supplies- delayed implementation. This meant that the timing and quality of materials supplied reduced the ability of households to implement the BBS principles into construction.

One organisation (Agency D) noted that **the availability of suitable land with adequate tenure security** delayed implementation – notably this was primarily in urban areas. Agency D adopted mitigation strategies such as developing shelter designs which fit into small urban plots. In future the organisation recommended hiring staff with legal backgrounds at the outset of the programme and providing legal training to field staff so they can support households. Working in mainly rural areas, Agencies C and F did not find land issues so challenging despite the informal nature of many land tenure agreements. These organisations found that providing lightweight (such as CGI and timber) rather than permanent (masonry/concrete) materials reduced potential conflict with landowners. This was supported by: MOUs with municipalities to confirm that households owned

the materials even if land tenure was uncertain (Agency F); supporting households to make informed decisions about investment in their properties with insecure tenure (Agency C); facilitating discussions with communities to enable households to relocate away from natural hazards (Agency C).

Two organisations (Agencies D and F) highlighted that a shortage of **skilled and unskilled labour** delayed implementation. In future it was recommended that the availability of skilled and unskilled labour is assessed early in the response and that skills gaps are addressed through the livelihoods programme.

Three organisations (Agencies D, E and F) stated that **the low level of certainty over government policies** had a negative effect on implementation. This was particularly in relation to the lack of clarity over the government's 'No Build' or 'No Dwelling Zone' (NDZ) policy<sup>xxii</sup>. Agency E found that one donor would not permit the organisation to assist households living in NDZ and this caused conflict within communities. Instead the organisation chose to work in municipalities with fewer households living in the NDZ – despite higher levels of need in coastal areas. Agency D developed a 'menu of shelter options' for households living in the NDZ that were designed to support relocation. However, households were hesitant to leave their original locations and often either: split the household (with some family members staying behind); returned frequently; or invested resources in repairing their old homes. Agency F did not provide financial assistance on the understanding that beneficiaries would receive 30,000 Php from the government. In the end the distribution of this Emergency Shelter Assistance (ESA) was very delayed – and not provided to households who had already received assistance from humanitarian organisations. Agency F also made agreements with some local governments that they would provide coconut timber for construction – however, the timber provided was such low quality and volume that Agency F had to procure this themselves instead.

One organisation (Agency B) noted that **the level of corruption or fraud** had a negative effect on implementation as favouritism during the beneficiary selection process led to community dissatisfaction. The organisation later developed its own beneficiary selection process based on a technical damage assessment rather than relying on community consensus. Agency D highlighted that potential corruption or fraud in its programme was mitigated by: using a third party cash distribution service; using technical staff to confirm completion of work stages prior to subsequent payments; and the provision of a completion certificate signed by both Agency D and the household.

Three organisations (Agencies C, E and F) found that **the level of economic recovery and rate of inflation** had a negative effect on implementation. This was because disrupted supply chains (in the immediate response) and slow recovery of local businesses (in some areas) meant that materials could not be purchased locally or suppliers did not meet orders or provided inferior materials. This

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<sup>xxii</sup> In November 2013, the national government used media statements to instruct municipalities to implement a 40-metre 'No Build Zone' (NBZ) in coastal areas, which was loosely based on existing legislation<sup>xxii</sup>. Several months of confusion and inconsistent implementation followed, with local governments trying to enforce the policy through restricting recovery support to residents living in the NBZ and proposing wide-scale resettlement (Sherwood et al. 2015, p.26). The NBZ was renamed the 'No Dwelling Zone' (NDZ) in some locations as uses, other than housing were permitted. In March 2014, OPARR recommended rather than applying a blanket 40m NBZ, areas be distinguished as 'safe zones' or 'unsafe zones' based on geo-hazard mapping (Oxfam 2014, p.14).

required materials to be sourced from further afield and higher levels of quality control leading to programme delays.

Three organisations (Agencies C, E and F) stated that **the accessibility or remoteness of households** had a negative effect on implementation as damaged infrastructure, bad weather, typhoons, and the remote location of communities caused programme delays.

One organisation (Agency C) found that **security** concerns (threats of crime and violence) meant that they were unable to work in certain barangays despite household needs.

**Table 7: Summary of context factors and effects**

Factor	Agency	What was the context?	What were the effects?	Mitigation strategy adopted/recommended
<b>The experience and capacity of the agency and partners</b>	AGENCY C AGENCY B AGENCY F AGENCY D	Insufficient number of staff with appropriate technical, community facilitation and/or logistics skills and experience	Over-stretched staff (particularly senior technical staff) (C)  Over-reliance on partners/lack of technical training and oversight (C)  Programme delays – particularly caused by quality assurance of materials purchased (F)  Poor communication and community dissatisfaction – particularly around beneficiary selection (B)	Recruitment of additional staff but this was slow and new staff lacked experience (C, D, F)  Sub-contracting key activities (such as Community Action Planning) to partners (D) – <i>not recommended in future (when direct implementation)</i>  <i>Allocate adequate time and resources to building the capacity of partners (C)</i>
<b>The nature and strength of pre-existing relationships</b>	AGENCY F	Lack of pre-positioned goods and contracts e.g. for procurement of supplies	The timing and quality of materials supplied reduced the ability of households to implement the BBS principles	
<b>The availability of skilled and unskilled labour</b>	AGENCY D AGENCY F	Shortage of skilled labour (such as carpenters and plumbers)		<i>Early assessment of labour availability and gaps addressed through livelihoods programme (D, F)</i>
<b>The level of certainty over government policies</b>	AGENCY E AGENCY D	Lack of clarity over the government's 'No Build' or 'No Dwelling Zone' (NDZ) policy	One donor did not permit the agency to assist households in the NDZ – creating conflict within communities  Households hesitant to leave their original locations. If they relocated households often: left some family members behind, returned frequently, or repaired their old homes.	Selection of municipalities with fewer households in the NDZ despite needs (E)  Development of a 'menu of shelter options' for families living in the NDZ that were designed to support relocation (D)



Factor	Agency	What was the context?	What were the effects?	Mitigation strategy adopted/recommended
<b>The availability of suitable land with adequate tenure security</b>	AGENCY D AGENCY C AGENCY F	Lack of suitable land – either because of density in urban areas or natural hazards  Complex land tenure - often based on informal agreements between landowner and households	Delays	<p>Development (or flexibility) of shelter designs which fit in small urban plots (D)</p> <p>Lightweight (timber/CGI) rather than permanent (concrete) materials provided in NDZ (C, F)</p> <p>MOUs with municipalities to confirm households owned the materials even if tenure was uncertain (F)</p> <p>Discuss the risks of tenure insecurity with households and support them to make informed decisions (C)</p> <p>Facilitate discussions with communities to enable households to relocate away from hazards (C)</p> <p><i>Hire staff with legal backgrounds at the outset (D)</i></p> <p><i>Provide legal training to field staff so they can support households (D)</i></p>
<b>The level of corruption or fraud</b>	AGENCY B AGENCY D	Favouritism during the beneficiary selection process  Potential miss-use of funds	Community dissatisfaction with beneficiary selection  Delays	<p>Staff developed their own, independent beneficiary selection process (relying on a technical damage assessment, rather than community consensus)</p> <p>Using a third party cash distribution service (D)</p> <p>Using technical staff to confirm completion of work stages prior to subsequent payments (D)</p> <p>Provision of a completion certificate signed by both AGENCY D and the household (D)</p>

Factor	Agency	What was the context?	What were the effects?	Mitigation strategy adopted/recommended
<b>The level of economic recovery and rate of inflation</b>	AGENCY E AGENCY C AGENCY F	Disrupted supply chains (in the immediate response) and slow recovery of local businesses (in some areas).	Inability to purchase locally  Suppliers did not meet orders or provided inferior materials  Delays	Market assessment at the outset of the programme (D)  Materials sourced from further afield (E)  Higher levels of quality control required by the agency (E)
<b>The accessibility or remoteness of households</b>	AGENCY E AGENCY C AGENCY F	Damaged transportation infrastructure  Bad weather/typhoons  Remote locations of communities	Delays	
<b>The level of security</b>	AGENCY C	Staff received direct or in-direct threats of crime or violence when selecting the barangays where they would work	Barangays with security concerns were not selected for the programme despite household needs (AGENCY C)	





## 4. Conclusions and recommendations



### 4.1 Conclusions from this study

#### What combinations of assistance were provided?

All six of the interventions in this study provided material and technical assistance to households while four also provided financial support. The material assistance provided ranged from just corrugated galvanised iron (CGI) sheets to shelter kits including a combination of construction materials, fixings and tools. Financial assistance took the form of conditional cash grants and ranged from one-off grants of 3,000-10,000 Php up to phased payments of sums up to 49,500 Php depending on the level of housing damage. The technical assistance provided included: displaying or distributing build back safer materials to households; providing training of up to a day to 'shelter champions', households, communities, carpenters and the *barangay* (village or ward) Disaster Management Committee; house-to-house technical support provided by agency staff members or carpenters.

Organisations which provided financial support found that some of the cash was diverted to meet other urgent needs (such as food or healthcare). But programmes which did not provide financial support experienced delays and reduced construction quality as households still needed both to finance these other urgent needs (sometimes by selling construction materials which had been provided) and find additional funds to invest in construction. In programmes which provided fewer materials and more cash, households did not necessarily prioritise spending money on hard to purchase or expensive materials such as high quality CGI sheeting, hurricane strapping or fixings. Providing technical assistance improved the knowledge of households and communities about build back safer techniques, and the safety and durability of the shelters constructed. This was most effective when it included specific training for households and carpenters, followed up by house-to-house monitoring and technical support.

Four agencies implemented SSSR programmes in conjunction with direct-build transitional shelter or core home programmes for the most vulnerable households. The remaining two agencies provided 'top-up' assistance (in the form of additional financial or material and technical support) to



households who were unable to complete their homes. Only one organisation just focussed on shelter - three implemented WASH, livelihoods or DRR programmes in parallel to the shelter programme, one ran an 'integrated' shelter and WASH programme with parallel livelihoods and DRR programmes, while one implemented 'an integrated programme with shelter as the entry point'. Both organisations with integrated WASH and shelter programmes initially adopted 'self-recovery' approaches to the construction of toilets – but one changed to direct-build in areas with high water tables to ensure technical quality.

### **How did the programmes balance coverage, speed and cost?**

The six programmes included in this study ranged in: coverage - from around 3,500 to over 22,500 households; speed - from beginning implementation within 2 months and concluding within 12-18 to beginning implementation 12-18 months after the typhoon and completing within 24-36 months; cost - from 7,500 to 38,000 Php per household. They ranged in cost per household from between 10 and 25 times the cost of emergency shelter kits, 25-65 per cent of a transitional shelter programme, and 13-33 per cent of the core home programmes.

Both agencies which implemented 'stand-alone' SSSR programmes (without transitional shelters or core homes for the most vulnerable households) relatively rapidly provided low value support to a large number of households and later introduced 'top-up' programmes for families in need of additional support. Two agencies implemented programmes which combined SSSR with transitional shelter or core homes for the most vulnerable households and integrated interventions in other sectors. These programmes assisted a similar number of households to the stand-alone programmes but at a higher cost per household and with a slower start to construction and longer duration. Two agencies implemented programmes which combined SSSR with transitional shelter or core homes for the most vulnerable households and parallel interventions in other sectors. These programmes assisted a smaller number of households, at similar cost per household to the integrated programmes, but with a slower start to construction.

### **What were the outputs and outcomes?**

Household-level outputs measured in the studies included: the completion rates of shelters; the size, safety and durability of shelters; and household knowledge about safer construction techniques. Typically more than 90 per cent of households had used the assistance provided to repair or rebuild their shelters at the time the programmes were evaluated. However, three agencies reported that households had tried to use the assistance to build a new larger or more robust house but this had affected their ability to complete their homes. Beneficiaries were typically positive about the size, safety and durability of the shelters constructed. Three of the programmes reported significant positive effects on household's knowledge about build back safer techniques.

Household-level outcomes measured in the studies included households': perception of safety and security; income, expenditure, assets or debts; physical and mental health; and dignity, empowerment and self-reliance. All six programmes reported positive effects on households' perception of safety and security. Five of the programmes reported reduced expenditure and/or increased disposable income and assets. Three of the programmes reported positive effects on household physical and mental health. Two of the programmes reported positive effects on household pride, dignity and self-reliance – particularly for women when they had been included in training on build-back-safer (BBS) techniques.

The outputs and outcomes of SSSR programmes were often perceived differently by the implementing agency (often based on technical assessments) and households. For example, one

agency noted that while technical specialists viewed the shelters as 'complete' the households viewed them as 'incomplete' as there were still many more improvements they wanted to make. The perception of households also varied depending on their needs and priorities, location (in rural or peri-urban areas), the length of time which had elapsed since the typhoon, and the support other households were receiving.

Community-level outcomes reported in the studies included: knowledge of BBS techniques being spread to the whole community; increased resilience to future shocks; positive economic impacts as households spent the financial assistance on purchasing materials and hiring local labour; and improved social relations, organisation and empowerment.

### **What were the primary contributions of households?**

Households made material and financial contributions such as: paying for transportation of materials; paying for skilled or unskilled labour; buying additional materials; salvaging materials from destroyed or damaged homes; and providing a storage place for materials during distribution and construction. Household contributions also included time spent: attending meetings and training; transporting materials home from the distribution point; building their own shelters; and supervising construction and monitoring progress. All of these activities required the time of one or more family members and therefore resulted in a potential loss of income.

Very few of the documents attempted to quantify the contribution of households. However, based on data provided in those which did the financial contribution of an average household can be estimated at up to 10,000 Php for additional materials plus skilled and unskilled labour and transportation. In addition all households spent 1-2 days attending training and collecting their materials, while up to 40 per cent self-built their own shelters, and some will have provided help to other households via *bayanihan* (communal unity, work and cooperation to achieve a particular goal). This also has a financial cost in potential loss of income of 250-500 Php per day. These are significant contributions in comparison to the external support provided – which ranged from 7,500 to 38,000 Php per household.

### **Programming: what worked well and what was not as effective?**

Programme design was most effective when it was informed by feedback from communities, local partners and governments and included rapid assessment of markets and supply chains for construction materials, environmental conditions, and potential health and safety risks. Programme implementation was most effective when it was guided by a clear strategy (including an exit strategy) and included continuous monitoring to validate earlier assumptions, and working closely with communities, local partners and governments.

Flexible programming was necessary to respond to the changing context and needs of households. This included proactive measures such as allowing households to choose between direct-build or SSSR approaches, or providing households with different needs with different packages of assistance at the beginning of the programme. It also included reactive measures such as making programme adjustments based on monitoring or feedback. To adopt a flexible approach to programming agencies needed both adequate monitoring and feedback mechanisms to identify needs and the support of their colleagues in head office and donors in order to make changes.

Beneficiary selection was challenging for many agencies and the majority reported a degree of community dissatisfaction with the process. Challenges experienced included: misunderstanding whether the role of a community committee was to establish criteria or select beneficiaries;

misapplication of beneficiary selection criteria; having to implement a second round of assessment to identify beneficiaries for 'top-up' assistance; and some degree of miss-targeting (providing assistance to families who were less in need of support).

Some agencies questioned whether their SSSR programmes had provided adequate assistance to the most vulnerable households, and lack of materials or finance were the key reasons given by beneficiaries for not undertaking repairs or reconstruction. Higher levels of understanding and application of BBS techniques were achieved in programmes which provided more in depth training and/or house-to-house monitoring and technical support than those which relied on distributing or displaying BBS leaflets or posters and community-level briefings.

### **Context: what factors helped or hindered implementation?**

The main factors which hindered implementation of the programmes were: the experience and capacity of the implementing agency and its partners; disrupted supply chains and slow recovery of local businesses in some areas; and damaged infrastructure and bad weather hampering access to remote communities. Other factors which hindered implementation of the programmes were: a shortage of skilled and unskilled labour; confusion over the government's 'No Dwelling Zone' policy; the availability of suitable land with adequate tenure security; corruption or fraud; a lack of pre-positioned goods and contracts; and security concerns.

## **4.2 Recommendations for policy and practice**

**SSSR programmes have the potential to cost-effectively and rapidly assist a large number of households.** Depending on the households and context, as well as the mandate, capacity and funding of the assisting organisation, SSSR programmes can either: rapidly provide a relatively low value package of shelter assistance during the relief/early recovery phase, followed by monitoring and additional support depending on the level of need (in shelter or other sectors); or undertake more detailed assessment and programme design, prior to implementation of the SSSR programme in the recovery phase alongside integrated interventions in multiple sectors.

**'Self-recovery' does not have to mean 'self-building' – instead, supporting shelter self-recovery involves helping households to make and implement key decisions about their housing recovery process.** Decisions made by households include: whether or not to prioritise shelter recovery (for example over re-establishing livelihoods); whether to repair, re-build in-situ or relocate; what type of shelter assistance to receive (for example direct-build, rental support or SSSR); whether to rebuild quickly (using immediately available resources) or slowly (when time and money allow); whether or not to incorporate build back safer techniques; whether to self-build or hire labour; and which materials to salvage or buy.

**Providing a combination of material, financial and technical assistance is critical to the success of SSSR programmes.** If one of these elements is not provided then programmes are more likely to experience problems with delays or lower quality construction as households have to make up the shortfall themselves.

Material, financial and technical assistance should include:

- The provision of key materials which are expensive or difficult to source (such as hurricane strapping or high quality CGI sheets).
- Cash or vouchers to both purchase construction materials and meet urgent needs.



- Pre-construction training for the whole community (plus carpenters and local government) and ongoing technical support at household-level provided by agency staff members or carpenters.

**SSSR programmes should be integrated with livelihoods and WASH programmes (where it is culturally appropriate).** Households contribute significant time and resources to SSSR programmes (both depleting their assets and reducing time spent on livelihoods) while lack of materials or finance is a key reason for construction delays. Where culturally appropriate, the support provided for shelter recovery can also include support for repair and reconstruction of toilets – except for the most vulnerable families or areas with specific technical requirements (such as high water tables) where direct-build approaches might be more appropriate.

**Assessment of the needs, priorities and capacities of households and communities, as well the availability of labour, materials and land is necessary so that the most appropriate combination of assistance is provided.** This should include assessment of household's urgent needs and priorities for recovery, as well as their ability to contribute time, skills and financial or material resources to the construction process. It should also include assessment of the local, national and international markets and supply chains for skilled and unskilled labour, construction materials and land.

**Analysis of potential risks to the programme is necessary so that these can be monitored and managed by the implementing agency while minimising potential negative impacts on households or communities.** This includes analysis of the likelihood and impact of political, economic, sociological, technological, legal and environmental factors such as inflation, conflict, corruption, policy change, housing, land and property rights, environmental degradation, natural hazards, health and safety, and lack of key resources such as labour, materials and land.

**Monitoring and flexibility during programme implementation is critical to validate earlier assumptions and identify and respond to changes in the context or outstanding needs.**

Monitoring should be carried out in collaboration with households, communities, local partners and governments while flexibility requires the support of colleagues and donors in order to make the changes required.

**SSSR programmes could be part of a tiered system of support (such as training, SSSR and 'SSSR Plus' or direct-construction) to households with different levels of need.** For example, all households in a community (plus carpenters and local government) could be provided with training on: build back safer techniques; safety during construction; and housing, land and property rights. Households in need could then receive support for shelter self-recovery (SSSR), while the most vulnerable could receive an additional package of material, financial and technical assistance ('SSSR Plus') or the direct construction of a transitional shelter or core home.

## 4.3 Suggestions for further research

Based on this study, the authors suggest the following topics for further research:

- **Comparison of the coverage, speed and cost of SSSR interventions with other relief or recovery interventions.** This could include physical interventions such as the provision of emergency shelter kits, tents or transitional shelters and legal or financial interventions such as rental support.
- **The most effective forms of material, financial and technical assistance and how they are best combined.** This should include detailed analysis of SSSR interventions and the quality of their outputs and outcomes – preferably in comparison with similar programmes. It should also investigate the effectiveness of distributing IEC materials in comparison with training and ongoing technical support at household level.
- **The integration of SSSR programmes with livelihoods support and/or WASH.** The integration of livelihoods programmes with SSSR was recommended in future programmes in a number of documents. Two programmes in this study also provided examples of ‘self-recovery’ approaches to the reconstruction of toilets. Both of these approaches are relatively rare and would benefit from further investigation.
- **Assessment of the needs, priorities and capacities of households and communities.** None of the studies included in this research detailed how the capacity of households and communities to contribute was assessed during project planning stage, or how this was monitored throughout the course of the project.
- **Assessment of the markets and supply chains for skilled and unskilled labour, construction materials and land.** Only two of the programmes included in this study described assessments of markets and supply chains for construction materials while none mentioned assessments of the markets for labour or land.
- **Assessment and management of potential risks to SSSR programmes** (potentially based on existing frameworks such as STEEP, PESTLE, SWOT). Improved assessment and management of potential risks to SSSR programmes would reduce the likelihood for risks to be transferred to households and communities with potential negative impacts.
- **Development of a standardised methodology for evaluating SSSR programmes** (including the development of indicators and data collection methodologies). Undertaking comparative analysis and learning is currently very challenging given not just the variety of programmes but the ways in which they are documented and evaluated.
- **The implementation of SSSR programmes in urban areas.** Although some of the programmes in this study were implemented in urban or peri-urban areas there were few in-depth examples.

## 5. Abbreviations and acronyms

BBS	Build Back Safer
CENDEP	Centre for Development and Emergency Practice, Oxford Brookes University
CGI	Corrugated galvanised iron sheets
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
ESA	Emergency Shelter Assistance
GIDA	Geographically Isolated and Disadvantaged Areas
IEC	Information, Education and Communication (materials)
MOU	Memorandum of Understanding
NBZ	No Build Zone
NDZ	No Dwelling Zone
NGO	Non-governmental organisation
OPARR	Office of the Presidential Assistant for Rehabilitation and Recovery
Php	Philippine Peso
SRA	Shelter Repair Assistance
SRK	Shelter Repair Kit
SSSR	Support for Shelter Self Recovery
SST	Shelter Technical Training
TESDA	Technical Education and Skills Development Authority
WASH	Water, sanitation and hygiene



## 6. Appendices

### Appendix 1: Outcomes and factors identified in the authors' previous evidence synthesis on SSSR

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Household level outcomes of interventions supporting shelter self-recovery:

- Dignity and self-reliance.
- Perception of safety and security.
- Income or livelihoods.
- Assets or debts.
- Physical and mental health.
- Knowledge about safer construction.

Factors that helped or hindered the implementation of interventions supporting shelter self-recovery:

#### *Household factors*

- The ability of households and communities to contribute skills, labour, materials or finance.

#### *Programme factors*

- Undertaking adequate assessments and regular monitoring.
- Developing a clear and simple plan.
- Designing a programme that meets the changing needs of households in different contexts.
- Developing clear and simple beneficiary selection criteria and transparent selection processes.
- Supporting coordinated community involvement and adequate two-way communication.
- Delivering adequate financial, technical and/or material assistance.

#### *Contextual factors*

- The level of certainty over government policies.
- The level of economic recovery and rate of inflation.
- The level of abuse of power for private gain (corruption).
- The experience and capacity of the implementing agency and partners.
- The level of instability and security.
- The availability of skilled and unskilled labour.
- The availability of suitable land.
- The nature and strength of pre-existing relationships.
- The accessibility or remoteness of the household.

See Maynard, V., Parker, E., Twigg, J. (2016) The effectiveness and efficiency of interventions supporting shelter self-recovery following humanitarian crises: An evidence synthesis, Oxford: Oxfam GB. Retrieved May 20, 2017 from <http://fic.tufts.edu/publication-item/shelter-systematic-review/> for further details

## Appendix 2: Example Risk Register based on the context factors identified in section 3.3

The context factors detailed in section 3.3 should be assessed at the programme outset as part of a **risk management process**<sup>xxiii</sup>. Depending on the information available through secondary data (e.g. on-line searches, reports from other agencies, government etc.), this may need to be supplemented by primary research or assessment. This primary research may be more or less formal or informal, continuous or a snap-shot.

Contextual Risks							
Factor	Description / Detail	Likelihood	Impact	Risk Rating	Assumptions	Actions	Who is responsible
Economic Recovery/Inflation							
Instability/Armed conflict							
Government policies							
Experience and capacity of implementing agency and partners							
Pre-existing relationships							
Corruption or fraud							
Skilled and unskilled labour							
Land ownership and availability (of suitable land)							
Accessibility of households (geographically)							

<sup>xxiii</sup> Risk management supports good decision making by enabling you to plan and make contingencies to deal with uncertain events or circumstances. A risk is: 'an uncertain event or set of circumstances that, should it occur, will have an effect on the achievement of the project outcomes'. A typical risk assessment analyses the 'Likelihood' (of the risk happening) against the 'Impact'; in order that you can develop risk mitigation (or acceptance, avoidance or transfer/share) strategies, prioritise where you focus your resources and better manage the expectations of donors and beneficiaries (e.g. communication which risks you can control/influence and which ones you can't so that they are aware of possible delays etc). These decisions are documented in the 'Risk Register'. The Risk Register is a 'live document' that is reviewed regularly and, if necessary, updated and circulated to manage the project.

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