

Global Shelter Cluster

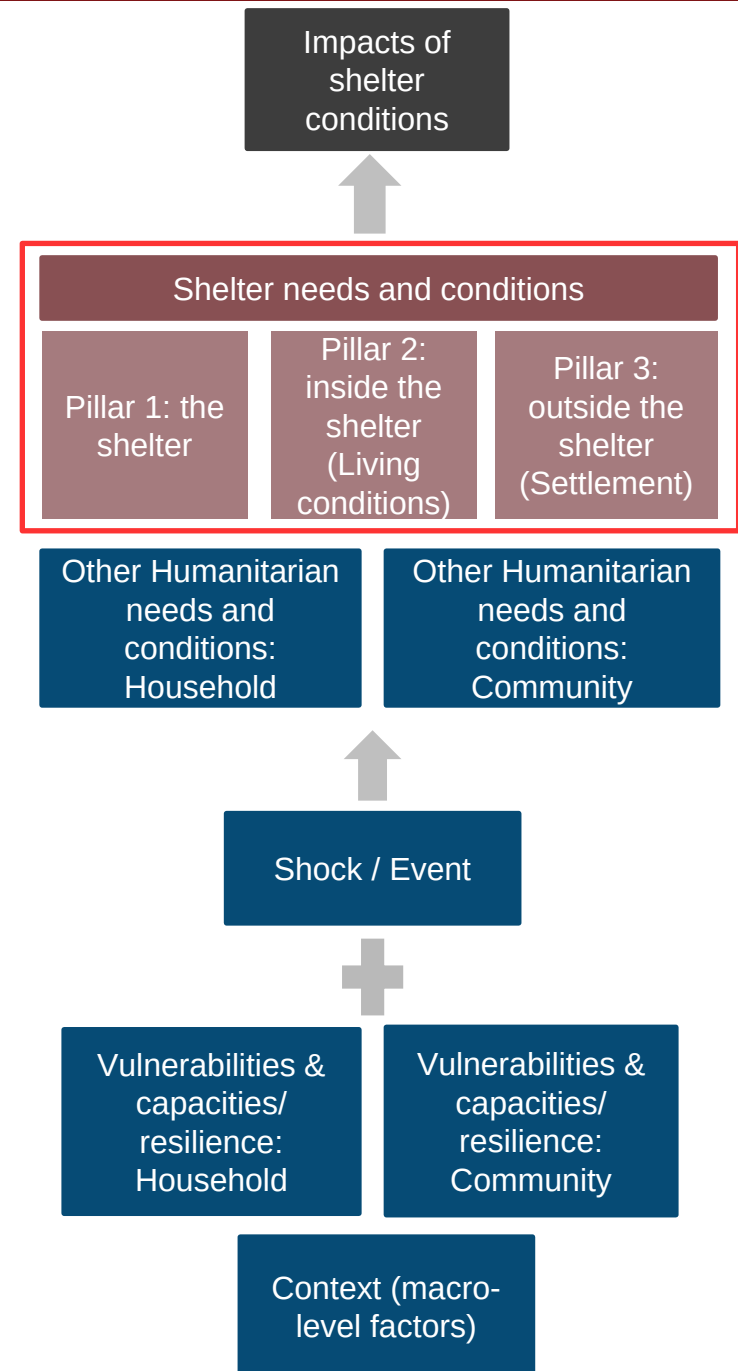
SSC technical Deep dive: Calculating severity and PiN

August 23, 2023

Content of SSC training Recap

Training P1. (June 06)	Training P2. (June 13)	Training P3. Coordination workshop (June 20)	Training P4. Refresher (August 09)	Training P5. Technical Deep dive (August 23)	Training P6. Technical Deep dive (September 07)
✓ Introduction: Background, rationale & objectives of the SSC ✓ Theoretical background: Framework, Pillars ✓ Implementation (Part 1): PiN & severity calculation	✓ Implementation (Part 2): Context analysis, evidence list, dashboard and flagging system, analysis workshop ✓ Shelter Needs Overview: Outputs	✓ Applying the SSC model to different types of contexts and scenarios	✓ Refresher on key features and process ✓ Zoom on the questionnaire, analysis grid and decision tree (=preparatory work before the calculation of PiN and severity)	✓ Calculating SSC severity and PiN, underlining differences between household and area level data	✓ Calculating PiN and severity – flags and adjustments ✓ SSC workshop

- Severity and PiN are calculated using data which informs the three pillars of shelter needs and conditions
- In some cases, pre-existing vulnerabilities can also inform PiN and severity, particularly when it comes to adjustments



2. Calculating SSC severity and PiN

Calculating PiN and severity steps

Calculation step	Automated in the calculation tool ?	Differs between HH and area data ?
1. Designing questionnaire, filling in analysis grid and decision tree	No	Yes
2. <i>(after data collection)</i> Formatting dataset	No	Yes
3a. Calculating the severity score for each pillar for each HH using the analysis grid	No	Yes and No
3b. Calculating the overall severity score for each HH using the decision-tree	Yes*	No
4a. Calculating % of HH under each severity level, for each admin unit and population group	Yes*	No
4b. Determining severity for each area and/or population group using the 20% rule	Yes*	No
4c. Calculating the PiN by applying the sum of the proportion of all HH that have a severity of 3, 4 or 5	Yes*	No
5. <i>Adjustments (as needed) using evidence</i>	No	No

Step 2. Formatting dataset (HH-level data)

- **Action:** Once you received the MSNA dataset, format it into the calculation tool, by aligning the data to the population groups and admin units of your analysis
 - We advise you to format it as such to facilitate the automatic calculations that are in the tool
- **Output:** formatted dataset that you can then use to conduct your analysis, aligned to the population groups and admin units of your analysis

Step 2. Formatting dataset (area-level data)

- **Actions:** Transform area-level dataset(s) into ONE HH-level, by translating percentages of % of HH in relative number of HHs:
 - Each row corresponds to one HH
 - Each column corresponds to one criteria of the sub-indicators, the number will depend on the data you have access to
 - As with HH level datasets, align your data to the admin units and population groups of your analysis
 - The dataset you create will be directly the one called “HH severity” in the calculation tool
- **Output:** formatted dataset that you can then use to conduct your analysis, aligned to the population groups and admin units of your analysis

Example on how to translate your area-level data to a HH-level dataset

- *Data scenario: “Following a cyclone, according to the head of district A, 20% of houses had no or minor damage by the cyclone, 50% medium damage, and 30% major damage or house destroyed. Meanwhile, the head of the district also reports that 20% are currently living in overcrowding conditions, with no privacy.”*
- According to your analysis grid:

SSC Sub-indicator	SSC Criteria to measure sub-indicator	Scoring	How to measure the criteria based on the data you have (the part you have to fill in !)
Ind 1.1: Level of safety and security provided by the shelter (defects, issues, damage, location / environment)	Safe	0	<i>No or minor damage</i>
	Unsafe (can affect goods/property or can affect mental/physical health)	1	<i>Medium damage</i>
	Unsafe (life threatening)	5	<i>Major damage or house destroyed</i>
Ind 1.2: Level of privacy provided by the shelter (overcrowding, partitions)	Sufficient privacy	0	<i>Reported privacy</i>
	No privacy	0.5	<i>Reported no privacy</i>
	No privacy AND overcrowded (> 3 people per room or < 3.5m ² per person)	1	<i>Reported no privacy and overcrowding</i>

- Create rows according to your % and put in the scores as per the analysis grid
- The assumption below is that the “worst” responses likely concern the same households: there is a higher probability that a household with a severely damaged house is living in an overcrowded collective center as opposed to a household who lives in a house with minor damage
- *Reminder of data scenario: 20% undamaged, 50% medium damage, 30% major damage, 20% no privacy and overcrowding*

Household (1 row =1 hh)	Admin unit	Population group	Safe shelter	Unsafe shelter	Life threatening shelter	Privacy	No privacy & overcrowding
1	District A	Affected	0	0	0	0	0
2	“	“	0	0	0	0	0
3	“	“	0	1	0	0	0
4	“	“	0	1	0	0	0
5	“	“	0	1	0	0	0
6	“	“	0	1	0	0	0
7	“	“	0	1	0	0	0
8	“	“	0	0	5	0	0
9	“	“	0	0	5	0	1
10	“	“	0	0	5	0	1

Step 3a. Calculating the severity score for each pillar for each household using the analysis grid

- **Action:** Referring to your analysis grid, generate the relevant scores
- **Output:** For each row of your dataset (each HH) you will have a severity score for pillar 1, pillar 2, and pillar 3

ADMIN. UNIT	POPULATION GROUP	HOUSEHOLD	SEVERITY PILLAR 1	SEVERITY PILLAR 2	SEVERITY PILLAR 3
Admin. unit A	IDP	HH A1	3	4	5
Admin. unit A	IDP	HH A2	1	2	3
Admin. unit A	Returnee	HH A3	5	3	3
Admin. unit B	IDP	HH B1	4	4	2

Step 3b. Calculating the overall severity score for each household using the decision-tree

- **Action:** None (in theory!) except checking your data
 - The calculation is done automatically
 - To change how the three scores are aggregated, you can modify the last column of the decision-tree; however, any adjustment to the decision-tree post-analysis should be logged and justified
- **Output:** For each interviewed household you will have a final severity score

ADMIN. UNIT	POPULATION GROUP	HOUSEHOLD	SEVERITY PILLAR 1	SEVERITY PILLAR 2	SEVERITY PILLAR 3	OVERALL SEVERITY
Admin. unit A	IDP	HH A1	3	4	5	4
Admin. unit A	IDP	HH A2	1	2	3	2
Admin. unit A	Returnee	HH A3	5	3	3	5
Admin. unit B	IDP	HH B1	4	4	2	3

4a. Calculating of % of households under each severity level, for each admin unit and population group

- **Action:** None (in theory!) except checking your data
 - The calculation is done automatically
- **Output:**

ADMIN. UNIT	POP. GROUP	TOTAL POP.	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Admin unit A	IDP	1000	41%	40%	3%	8%	8%
Admin unit B	Returnee	5,700	15%	10%	50%	19%	6%
Admin unit C	IDP	18,000	23%	28%	41%	4%	4%

4.b. Determining severity for each area and/or population group using the 20% rule

- **Action:** None (in theory!) except checking your data
 - The calculation is done automatically
 - The calculation is the 20% rule
- **Output:**

ADMIN. UNIT	POP. GROUP	TOTAL POP.	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PEOPLE IN NEED	ADMIN SEVERITY SCORE
Admin unit A	IDP	1000	41%	40%	3%	8%	8%	190	2
Admin unit B	Returnee	5,700	15%	10%	50%	19%	6%	4,275	4
Admin unit C	IDP	18,000	23%	28%	41%	4%	4%	8,820	3

4.c. Calculating the PiN by applying the sum of the proportion of all households that have a severity of 3, 4 or 5 on the baseline population figures

- **Action:** Check your results + include the baseline population figures into the sheet “area severity and PiN” if you haven’t already
 - The calculation is then done automatically
 - The calculation sums the proportion of households applied to population figures under severities 3, 4 and 5
- **Output:**

ADMIN. UNIT	POP. GROUP	TOTAL POP.	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PEOPLE IN NEED	ADMIN SEVERITY SCORE
Admin unit A	IDP	1000	41%	40%	3%	8%	8%	190	2
Admin unit B	Returnee	5,700	15%	10%	50%	19% of IDPs in Admin A are in the PiN		4,275	4
Admin unit C	IDP	18,000	23%	28%	41%			8,820	3

Any questions?

Thank You!