Northern Donbas Sub-National Cluster Winterisation Recommendations

Ahead of winter 2015-2016, the Sub-national Shelter Cluster in Northern Donbas will coordinate among Shelter/NFI actors to:

- Identify and **prioritise winterisation needs** of most vulnerable populations
- **Harmonise or standardise modalities** of assistance as possible
- Ensure geographical **coverage of interventions**, and **non-duplication** of beneficiaries

Climate

Eastern Ukraine experiences long, harsh winters. Average temperatures drop below 10° C between mid-October and mid-April, and below 0°C from end-November to mid-March, with an average low of -10°C and down to -20°C in the colder areas. Rainfall is consistent throughout the year. Rural villages, especially those with already restricted access, may be at risk of having road access further limited or cut off during periods of heavy snow fall.

Population of concern

The population of concern can be divided broadly into two categories, experiencing different needs and requiring differing assistance:

- **Internally displaced persons**: likely displaced for a period between several months and over a year, often with limited access to income, and exhausting coping mechanisms[1]

- **Most vulnerable non-displaced conflict-affected population**: those residing near the line of contact, experiencing ongoing damage to shelter and infrastructure and/or restricted access to markets (fuel, NFIs) (see Annex 1 for live document of areas of highest concern)

The "do no harm" approach shall be adopted and seriously considered when planning and delivering assistance, especially in communities that have populations with different profiles (non-displaced population, hosting communities, IDPs, and returnees) in order to avoid the creation of tensions.

Based on available population data and calculation of need from current assessments, the projected population in need of winterisation assistance is **between 7.2% to 13.3% of IDP registered population**[2]. Access to essential winter items varies by item; the below table shows reported need for NFIs by highest need (shoes) and lowest (blankets), plus reported access to fuel and heating. Detail on access to items by area and is included in Annex 2.

Projection of population in need in frontline areas (most vulnerable conflict-affected population) will be included in update to Annex 1.

[1] See Shelter Cluster/REACH Shelter Assessment in Eastern Ukraine [forthcoming]
[2] Based on Ministry of Social Policy of Ukraine official IDP registered population of 1.4 million.

Projection of population in need (IDPs only)[3]			
	Blankets	Shoes	Fuel & heating
Rural Donetsk	12 951	32 948	16 106
Rural Luhansk	3 816	10 048	8 368
Urban Donetsk	11 302	11 123	11 521
Urban Luhansk	3 898	9 099	7 245
Northern Donbas (ind.)	**31 967**	**63 218**	**43 240**
Northern Donbas (HH)[4]	**10 656**	**21 073**	**14 413**

Targeting & vulnerability

Given multiple variables in a household's ability to access winterisation essential items, identification of the most appropriate winter assistance should be based on **observed need** of the household. Criteria for assistance – aligned with the recommendations of the Protection and Shelter Clusters – include:

- Location factors:
  - Urban / rural / frontline location
  - Associated market access and primary fuel type
  - Shelter damage
- Specific individual vulnerabilities:
  - E.g. persons with disabilities, elderly persons, persons with chronic illnesses, large families
  - Very low or no income

Lessons learned from the Winter 2014-2015 response in Ukraine include the importance of proper targeting in communities, and communication with communities on targeting criteria and selection process, especially in areas where all households have restricted access to their usual primary fuel type.

Modalities

Given the need for targeted assistance, and the lifesaving necessity of winter assistance, it is the recommendation of the Cluster that modalities of assistance focus on in-kind and voucher programming, ensuring access of identified vulnerable families to sufficient winterisation items. Individual organisations are free to adapt based on their own procedures and practices. When opting for vouchers as a modality, market access for beneficiaries shall be seriously considered; based on Winter 2014-15 experience, if items are not locally available provision of transportation to the nearest suitable store could be considered as an option.

In-kind provision will remain the recommended modality for frontline areas with restricted market access, whereas monetisation of assistance is possible where vulnerable families have market access.

Regardless of modality, which is up to each partner to choose, the assistance provided should guarantee that needs are addressed properly and the main objectives of the assistance are met.

[3] This includes displaced population only, most vulnerable non-displaced conflict-affected population are not included.
[4] Household estimation based on family size of 3 persons. See Annex 2 for average family size by location.

Typologies of winterisation assistance

Winter assistance should be prioritised to achieve maintenance of core body temperature. Shelter and heating interventions will aim for the **'One Warm Room'** principle – creation of a shared space within a household sufficiently weatherproofed and heated.

1. **Personal insulation**: to keep immediate space around bodies warm to maintain core body temperature

   Maintenance of core body temperature through keeping immediate space around a person warm is primarily through warm clothes and blankets.

2. **Heating:** to raise and maintain core body temperature

   Heating type varies by building type and location, including use of gas central heating system, electric heater, coal, wood. Understanding of heating type and related expenditure (utility bills or solid fuel) by location and by household is vital in order to identify the most appropriate modality of assistance.[5] In general, and for multi-storey buildings and Collective Centers in particular, capacity of electricity networks should be taken into consideration before providing electric heaters.

3. **Shelter:** to provide protection from the elements and basic insulation (One Warm Room)

   ### 3.1 Water- and wind-proofing

   Most relevant to households with damaged shelters, the main priority is to provide protection from the elements through water- and wind-proofing, i.e. repair or temporary fixing of damaged roofing, walls, and windows. Given some restrictions on repair of housing due to exposure to ongoing shelling or time constraints in winter, temporary fixes including use of plastic sheeting and tarpaulin are recommended.

   For displaced persons, facilitation of access to an adequate standard of shelter is recommended through other modalities of assistance, including Cash for Rent.

   ### 3.2 Shelter insulation

   Installation of additional items to improve insulation in a shelter is recommended for actors already undertaking shelter repairs, with the technical capacity to evaluate needs and advise on proper installation of items. Given openings (doors and windows) are the principle location of heat loss, insulation should be accompanied by emergency repairs and window replacement when needed.

Coordination

In addition to monthly 4W reporting of activities, Cluster members will continue to coordinate through the mechanisms in Sloviansk and Severodonetsk, and on a bilateral basis depending on areas of intervention, ensuring complementarity of assistance, or non-duplication through either geographical division of areas of intervention, or e.g. comparison of beneficiary lists as appropriate.

[5] Access to hot water is also of concern, for maintenance of personal hygiene

Standardisation & technical recommendations

A. Personal insulation – core NFIs

Winter 2014/15 was characterised by a large-scale distributions, including from volunteer organisations and LNGOs, covering not only specific seasonal items but also essential basic NFIs – bedding, mattresses etc. Following from this previous assistance, and differing circumstances and locations of households, there is considerable disparity in NFI access at household level within the population of concern – i.e. families who have displaced since last winter are least likely to have access to winter NFIs, while population of concern in their own houses likely retain access. Given this disparity, it is recommended that NFIs are provided based on **observed need**, rather than blanket provision. To support this, need identification and verification efforts have to be strengthened. The recommendations here are for core NFIs which each individual should have access to – based on observed need.

Further, ensuring access to basic NFIs should also be considered a priority alongside the provision of winterisation-specific assistance. NFIs recommended to be provided on a case-by-case basis if identified as needed are included below – mattresses, beds, and bedding being of essential round-year use as well as of thermal importance during the winter period.

While assistance is again anticipated by LNGOs and volunteer organisations for Winter 2015/16, scale of coverage is dependent on donations and cannot be projected. The Sub-national Cluster will ensure to coordinate assistance and referrals with local actors as best possible.

Clothing must be suitable for winter, clean, and appropriate for age/size and gender. Special attention should be paid to children, especially with regard to clothing, where renewable clothing is required (size changes as a child grows fast).

High-quality **high-thermal blankets** (50% wool or equivalent synthetic insulation) or quilts should be used, and it should be ensured that persons have access to mattresses for insulation from the ground, especially if floors are not covered. An additional blanket is recommended for persons with limited mobility, e.g. elderly, persons with physical disabilities.

Core NFI, *PER PERSON*[6]			
#	**Item**	**Qty**	**Cost**
Clothing			
1	Winter jacket	1	1,000 UAH / 45 USD
2	Winter shoes/boots	1	800 UAH / 35 USD
3	Thick socks	2	40 UAH / 2 USD
4	Woollen Hat	1	80 UAH / 4 USD
5	Thermal underwear	1	300 UAH / 13 USD
Core items			
6	High-thermal Blanket or Quilt	1[7]	200 UAH / 9 USD

[6] Indicative prices, estimating for bulk procurements, inclusive of VAT
[7] Additional blanket for persons with limited mobility

Suggested additional NFIs, dependent on need			
Possible additional NFIs, suitable for locations with restricted fuel/electricity access, e.g.			
7	Water heating coil	1/family	50 UAH / 2 USD
8	Flashlight/candles	1/family	50 UAH / 2 USD
9	Hot water bottle	1/person	40 UAH / 2 USD
Additional core NFIs, verified on a case-by-case basis			
10	Mattress	1/person or couple	200 UAH / 9 USD
11	Bedding	1/person or couple	260 UAH / 11 USD

B. Heating, stoves, and fuel

Primary heating and fuel type depends on location and housing type. Household access to sufficient heat for urban areas is restricted by cost and income. In frontline areas, primary fuel used can differ locally by town or village (e.g. due to proximity to coal mine), with limited market availability in some locations. Possibility of further deterioration of security context or roads becoming blocked due to snowfall is a further concern, requiring upfront delivery of solid fuel to remote or frontline areas. **Provision of assistance should be based on observed need in each locality / by household and take account of other types of assistance and/or subsidies already provided.** See: Annex 2 'Projections of target population'; *Shelter Cluster/REACH Shelter Assessment* (August 2015); and *NRC Winter Needs Assessment in Luhansk GCA* for detail on localised need.

Fuel prices – rising fuel prices, in particular gas, in Ukraine is of concern, and risk of gas and electricity disruptions during the winter is deemed to be high. Support for diversification of heating type is recommended for extremely vulnerable families. Given concern about price increase over the winter period, the Shelter Cluster and its partners will monitor prices and supply for both utilities and solid fuel.

Government subsidies for utility bills are available for certain categories of vulnerable households. See Annex 3 for an overview of available utility subsidies and conditions for access. Utility subsidies based on household income, size, and utility cost can be calculated here: http://www.kmu.gov.ua/control/calculator

The table below details average costs of various heating options, based on available prices in mid-August 2015. Costs may be revised with fuel price rises over the coming months.

Heating types & costs					
Item	**Primary location**	**Expenditure**	**Average consumption/winter**	**Cost/unit**	**Total cost for season**
Communal heating system	Urban	Utility bills	400m^3 gas / month to heat small house	Without subsidies: 3.600 UAH/m^3 for first 200m^3 each month; 7.188 for each m^3 over 200m^3 [8]	***Prior to subsidies,*** *est. cost is* *2,157 UAH/month* *12,945 UAH / season = 612 USD*
Coal stove	Rural	Coal + kindling wood	4 tons / HH / winter (3 tons high quality) coal + 3m^3 wood	2,000 UAH medium quality, 2,800 UAH high + 350 UAH/m^3	8,000 + 700 = 8,700 UAH = **390 USD**
Wood stove	Rural	Wood	10m^3 if no coal	350 UAH / m^3	3,500 UAH = **160 USD**
Electric heater	Urban/rural	Heater + utility bills	2,000W heater At 20hours/day = 1200kW/month	kWh domestic rate varies depending on central heating & gas access. Subsidies are available	***Prior to subsidies,*** *est. cost is* 3,500 UAH = **160 USD** if no gas / central heating + 600 UAH for heater **190 USD**
Gas heater*	Urban/rural	Heater + gas bottle	27L bottle/HH/month	1,600 UAH stove + gas canister (3200 UAH) + refills (70UAH/5L)	*Expenditure dependent on local availability of gas refills*

* Gas bottle: Given lack of widespread use in Ukraine, and the necessity for refill of cylinders requiring market access and posing an access issue for beneficiaries with limited mobility, and, use of gas heaters could be a solution for provision of heating where no communal heating system exists or is not functioning, coal/wood stoves are not installed, and electricity supply may be expected to be erratic or limited.

Utilities: it is recommended that utility bills, as a recurrent cost to the household, be included in ongoing assistance, e.g. provision of unconditional cash grants, i.e. government assistance .

It is suggested for 50% of cost to be covered for heating access (e.g. of provision of coal). For extremely vulnerable caseload e.g. protection trigger, proximity to frontline and associated very restricted market access, % coverage to be determined by individual organisations' policy based on need.

[8] Set prices for 1st October 2015 – 30th April 2016, as of mid-August 2015

C. Shelter

C.1. Basic shelter – emergency repair & window replacement

Repair of damaged housing along the old and current frontlines in eastern Ukraine is a matter of priority for shelter actors ahead of the winter months, with light and medium repairs underway in government-controlled Donetsk and Luhansk.

Window repair or replacement is often needed in locations subject to conflict-related damages, even where other physical damages have not occurred. However, projections from the Luhansk frontline areas suggest need for window glass outstrips the possibility of supply by humanitarian actors, and, if conflict continues, new damages to shelters will continue to occur. Shelter actors will continue to conduct repairs as best as possible during the winter months, with provision of **acute emergency shelter materials** (including tarpaulin, plastic sheeting, wooden battens) immediately after damage has occurred a necessity.

Openings in the shelter, especially **windows**, are the primary point of heat loss. Even if undamaged, double glazed windows of poorly heated premises could be upgraded by adding an extra layer(s) of transparent plastic sheeting. If existing windows are single glazed or directly damaged by blast and glass cannot be immediately replaced, setting up a light wooden frame with double layer of transparent plastic sheet as a temporary mitigating measure can be considered.

Particular attention should be paid to **closing all interstitial spaces** (gaps) between wall/window frame and also between window leaf and window frame, to eliminate drafts. Insulation foam and insulation tape are usually adequate.

	Temporary window replacement[9]		
#	**Item**	**Qty**	**Price est.**
1	Plastic sheeting (layered on frame)	$8m^2$ Double of window area in m2 (for critical case), single window area for regular	11 UAH/m^2 5 USD/room
2	Wooden battens25 x 20 x 4000mm	2 pcs	8 UAH/pc 1 USD/room
3	Insulation foam	0.5 can / window	70 UAH/can 1.5 USD/room
4	(Optional) insulation tape 10m	1 roll	10 UAH/LM 10 USD/room

For double-layered temporary plastic sheeting improvement, estimated cost could be **10-15USD per room**.

Existence of broken windows in unoccupied apartments in otherwise occupied multi-storey apartment buildings in specific frontline communities is anticipated to impede switching-on of communal heating systems by local authorities for these buildings. Boarding-up of these windows in unoccupied apartments can be made using plywood ,rockwool panel, and insulation foam, to allow heating systems to be activated.

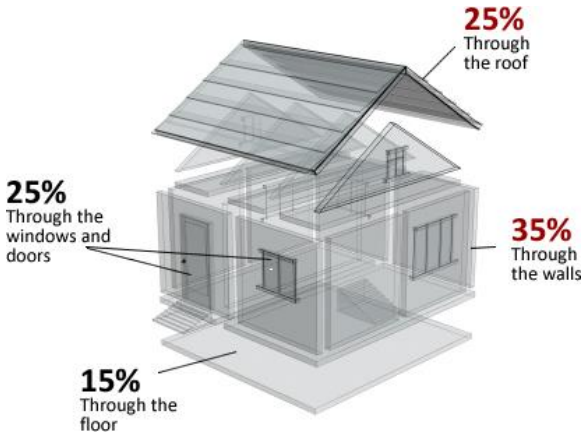
[9] Calculation based on average size of 2x1m window, with 2 windows per room

C.2 Shelter insulation

Where repairs are already taking place in damaged buildings, it is recommended that basic insulation is included, aiming for 'One Warm Room' per household. Installation of ceiling insulation is recommended, ensuring longer-term upgrade to the shelter.

More detailed than the general recommendation on windows, this approach requires sufficient technical expertise and directly aims to reduce the heat loss not only from openings but also if by improving the insulation of a selected space in the house. Usually the technical team is proceeding with a visual inspection to identify particular needs according each case and configurations (individual houses, apartments etc.).

Recommendations for any appropriate insulation of pipe networks will be made as necessary in cooperation with the WASH Cluster.

Diagram	**Element**	**Heat loss**	**Recommendation**
	Windows &opening [*priority*]	25-35%[10]	*Previously detailed*
	Draft [*priority*]	15-25%	*Insulation foam or tape*
	Roof [*optional*]	25-35%	*If existing draft, glass or rock wool panels on ceiling.*
	Floor [*optional*]	10-20%	*If ground floor or without wooden/linoleum cladding, matt or carpet like material could improve.*
Diagram only for individual house. Heat loss could significantly changes according design premises (multi-storey etc.)	Wall (external)	10 - 20%	*Usually too expensive for humanitarian intervention*

	Roofing insulation, example		
#	**Item**	**Quantity**	**Price est.**
1	Glass wool roll 100mm 6 m^2 each	18m^2	10 USD/6m^2 roll 30 USD/room
	Rockwool panel 100mm [*preferable as better insulation value]*	18 m^2	45 UAH/m^2 40 USD/room

[10] Heat loss estimation where windows are undamaged

2	Vapour barrier	18m^2	0.45/m^2 9 USD/room
3	Scotch tape	2 roll	0.8/roll 1.6USD/room
4	Wooden batten 25x20x4000 mm	3 pcs	8 UAH/pc 1.5 USD/room
5	Insulation tape (by linear metre, LM)	20 LM according to # and size of opening	10 UAH/LM 10 USD/room
6	Linoleum (cheapest)	10-12 m^2	45 UAH/m^2 20-30 USD
7	Transparent plastic sheeting 100 micron	10 m^2	11 UAH/m^2 6 USD/room
8	Insulation foam 500 ml	2 cans	70 UAH/can 6 USD/room

All prices are indicative; usually an engineering team is specifying specific quantity of items per household according to needs and dimensions.

For easy programing of activities with not all items/elements to be improved, an average insulation solution for a 1 room **could be estimated between 50 to 60 USD** depending nature and scope of work (estimation for work on either floor or ceiling).

Cost for room improvement including basic insulation (ceiling or floor) and windows is 60-80 USD, excluding works and transportation (est. 20-25% additional cost) as usual practices. Intervention should be made using the humanitarian approach of focusing on few elements of one room ('One Warm Room' principle) and not a complete building improvement.

Annex list:

Annex 1: Settlements of concern – live document

Annex 2: Note related to winterization: Data set and projections of target population

Annex 3: Overview of utilities pricing and government subsidies in Ukraine