



SRU Cladding & Fixing Conference

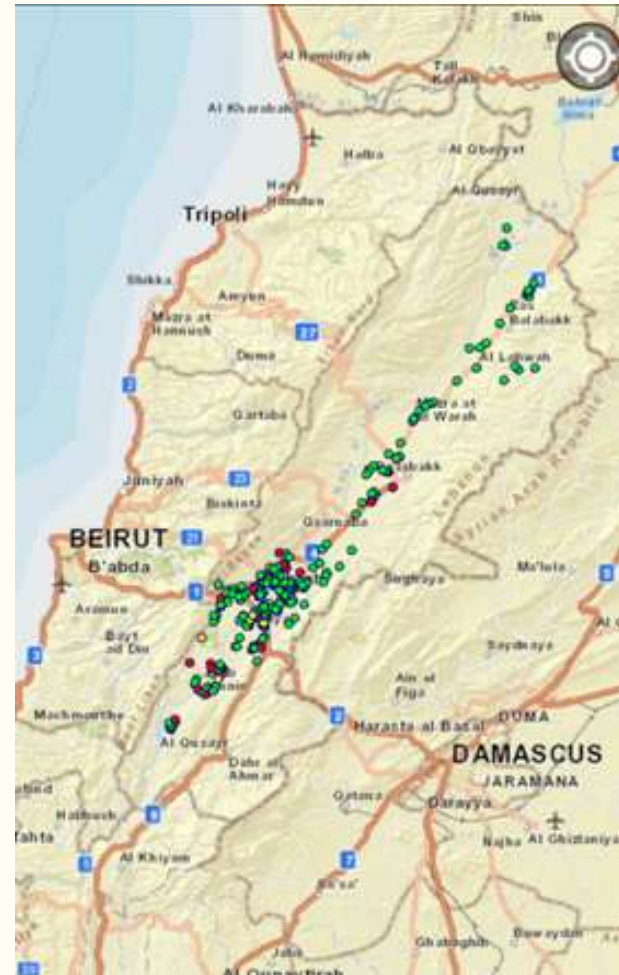
Shelter in Lebanon: Insulating Cladding Materials

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Shelter in Lebanon: Insulating Cladding Materials

1.0 Session Overview

- Background to the project
- Winterisation options
- Pilot project
- Vinyl vs Plastic Sheeting
- Project roll-out
- Internal evaluation findings
- Conclusions



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2.0 Background to the project

- Medair assessment team went to Syria Crisis in September 2012
- Found NFI needs of Syrian refugees in the Beqaa valley, Lebanon; began to source and distribute winterisation kits
- Team began mapping informal tented settlements (ITSs); process later formalised on request of UNHCR using GIS platform, monthly tracking
- Originally migrant workers settlements, expanded with refugee influx
- Agricultural land; assessed flood/ fire risk of ITSs, mitigation measures
- Cash transfer using ATM cards

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3.0 Winterisation options

- Found most tents were at least 5m x 8m, clad in reused vinyl (advert materials); suitable for summer use (migrant workers) not winter
- Medair developed several winterisation ‘quick fix kits’; these were agreed with UNHCR/ Save the Children (also operating in Bekaa valley)
- Local supplier of vinyl selected, distributions started to beneficiaries
- Households (HHs) often used new vinyl under old covering to prolong lifespan (less exposure to weather)
- Simple fixing using non-structural timber battens, nails and rope
- Detailing of vinyl around flue pipe of heating stoves

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4.0 Pilot project photos: Beqaa valley



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5.0 Vinyl vs Plastic Sheeting (PS)

In June 2013, Medair wrote a memo to UNHCR regarding the continued use of vinyl versus PS. Since that time, more advantages have become evident:

1. Existing Products: Standard Humanitarian PS (i.e. UNHCR 4m x 5m sheets) vs Alternative products on the market, i.e. Vinyl sheeting - (Difference in: cost, quality, availability, durability etc.)
2. Dimensions of PS being specified (flexibility of smaller sheets vs reduction in weak joints/seams and potential leakage provided by larger sheets)
3. Cost comparison of various materials (balance of cost vs life expectancy and need to repair in future)
4. UV protection (level of degradation under sunlight etc.); specification for vinyl suggests it will last longer (18-24 months?)
5. Market Availability (local supply of vinyl vs imported materials etc.)

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6.0 Project roll-out

The Shelter kits that were distributed were of two types:

| Shelter Kit E (800 HHs): Consisted of | Shelter Kit W (1500 HHs): Consisted of |
|--|---|
| Vinyl (1000 x 1000, 9 x 9, 440g) 3 pieces, 50 m2 each = 150sqm | 1 piece of Burlap 100 m2, 4 pieces, 210x125cm each. |
| 1 piece of 120 m2 x 100 micron plastic sheeting (clear) | 1 piece of 120 m2 x 100 micron plastic sheeting (clear) |
| 2 pieces of 400cm x 10cm x 2.5cm wood | 5 pieces of Floor mats |
| 2 pieces of 400cm x 20cm x 5cm wood | |
| 600g of nails and 400g of washers (galvanised) | 600g of nails and 400g of washers (galvanised) |

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7.0 Internal evaluation findings

- A shelter survey conducted by Medair in June-July 2014 in West & Central Bekaa covered a sample of all refugees who received shelter materials from Medair.
- Basic information about beneficiaries and their living conditions:
 - Average age of beneficiaries participating in survey is 36.5 years
 - Average family size of sampled population was 6.6 members
 - Average area of sampled respondents' tents is 35.6sqm
 - Average monthly rent cost of shelter is 33.2 USD (c.400 USD per year)
- 90%+ satisfaction with quality of all materials supplied in Medair kits; c.30% of HH wanted a greater quantity (for larger tents). Informal conversations with refugees who have seen both UNHCR plastic sheeting and Medair-supplied vinyl, always favour the vinyl.

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8.0 Next steps...

Medair will be monitoring HH acceptance of new kits being distributed, where vinyl pieces are pre-cut from (cheaper) 3.2m wide sheets to suit wall or roof repair thus avoiding need for cutting by beneficiaries and improving cost efficiency in procurement.

Question of what material Lebanon shelter actors should use going forward raised recently by ECHO in a Shelter WG meeting: they queried balance of cost vs. quality and durability of the existing plastic sheeting (PS) being distributed against potential to look into/ procure alternative longer-lasting products, therefore perhaps leading to more cost-efficient interventions by reducing potential need for regular repair.

Note: UNHCR require minimum of one set (2 or 3 sheets) of PS per shelter per year.

Medair has suggested that the Shelter Working Group's Temporary Technical Committee on Weatherproofing would provide the best forum for various Actors to review existing materials being used, look at alternatives and assess/ test as necessary (possible UNHCR/ECHO funding); awaiting next steps.



Any questions?