

Disasters, Waste and Debris

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Source: https://www.redcross.org/about-us/news-and-events/news/2018/earthquake-rattles-northern-haiti-red-cross-races-to-respond.html?srsltid=AfmBOerQEEEDbr7ZwMf11TK8ZoP4v5t6DWPg_jAlwyZmUNAHgghs3fZX

The Challenges

- ▶ Disasters can generate a lot of debris
- ▶ Waste can be a problem after disasters
- ▶ Waste and Debris are not the same thing
- ▶ There is no Waste and Debris Cluster
- ▶ Waste management systems pre-disaster are not always top-of-the-line
- ▶ Normal waste management can involve formal and informal systems and legal and less than legal operations
- ▶ Bad waste and debris management can harm disaster survivors

Concepts

- ▶ Have as little waste and debris as possible
- ▶ In general, 90% of waste and debris does not need to go into *long term storage*
- ▶ Use and build on existing systems
- ▶ Think long term
- ▶ Waste and Debris have value (\$\$\$)

Practices

- ▶ Reduce
- ▶ Reuse
- ▶ Repurpose
- ▶ Recycle
- ▶ Long Term Storage

Reduce

- ▶ **Only send what is needed** based on assessments
- ▶ Carefully consider cash and use of local markets, and impact on the environment and markets
- ▶ Use debris instead of “relief” supplies
- ▶ Packaging
 - ▶ Pretty is not a requirement for relief supplies – no triple packing
 - ▶ Plain and simple – you are not going to sell the contents
 - ▶ Bulk verses individual
 - ▶ Limit repackaging

Reuse

- ▶ Reuse debris for relief and recovery (but don't forget the ownership issue)
- ▶ Think ahead:
 - ▶ Is there a 2nd or 3rd use for the relief item or packaging provided?
 - ▶ Plan for reuse
- ▶ Consider the local reuse economy – pot fixers, tent menders, etc.
- ▶ If there is money to be made, someone is probably already finding some way to reuse waste or debris

Repurpose

- ▶ Like reuse but doing something quite different than initially intended.
- ▶ Difference between using tent frames for an upgraded shelter and using tent frames for baby strollers
- ▶ New livelihoods and business opportunities, but may not be sustainable if supplies or demand are not long term in nature

Recycle

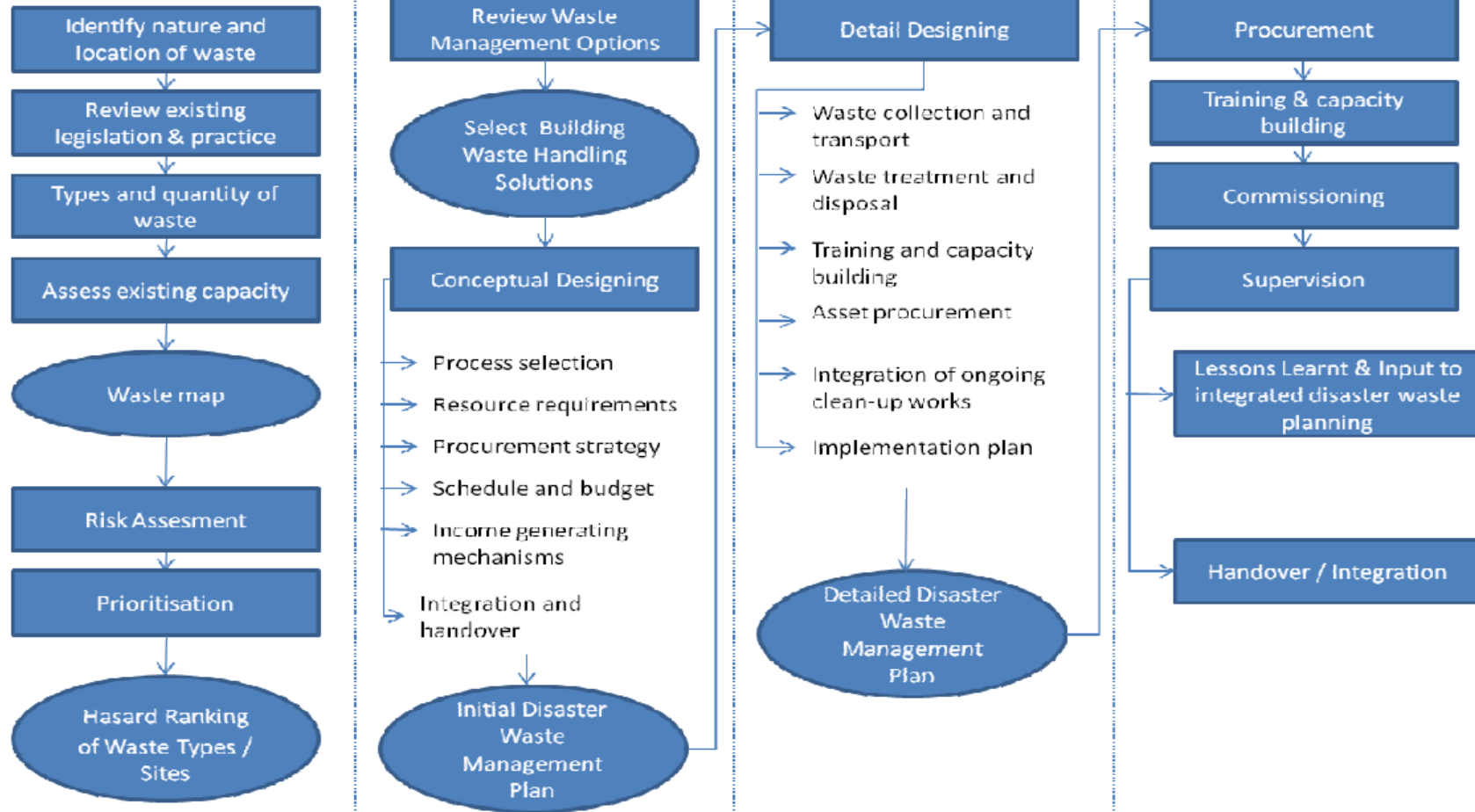
- ▶ Going back into the production cycle
- ▶ Circular economy
- ▶ **Hard for relief agencies to manage:**
 - ▶ Long term systems development required
 - ▶ **Due diligence – the Haiti Cholera problem**
 - ▶ Ownership
 - ▶ Funding
 - ▶ **Mandate and funding:** Likely NOT a Flash Appeal or HNRP project
- ▶ WREC resource of waste recyclers (see Resource slide)
- ▶ But **it can work** – recycling of batteries and other vehicle items by MSF in Haiti

Long Term Storage

- ▶ A resource not used today can be used tomorrow
- ▶ *Safe and sanitary* storage
- ▶ Respect human and land rights
- ▶ Prior informed consent
- ▶ Likely beyond the scope of humanitarian organizations, but such projects have been funded by Japan and may be options under development programming

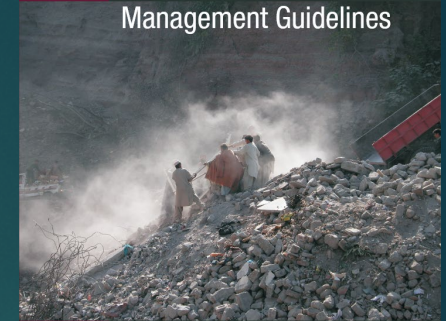
Debris Management Plan

- ▶ Objective: Reduce debris to 10% of initial volume
- ▶ Reuse, repurpose, recycle
- ▶ Requires estimating the
 - ▶ Volume of debris which could be generated
 - ▶ What will be found in the debris
 - ▶ Identifying in advance options for the 3 Rs
 - ▶ Estimating
 - ▶ **What** needs to be disposed of
 - ▶ **How much** needs to be disposed of and
 - ▶ **Where** it can be disposed



SOURCE : UNEP Disaster Waste Management Plan (27 April 2007)

Disaster Waste Management Guidelines



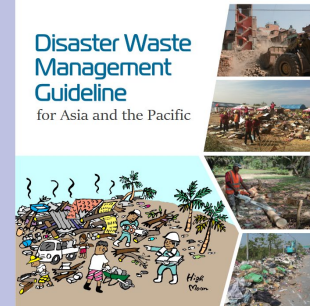
GUIDANCE NOTE DEBRIS MANAGEMENT

CRISIS PREVENTION AND RECOVERY

United Nations Development Programme



Disaster Waste Management Guideline for Asia and the Pacific



Words of Caution

- ▶ Call it “waste” and the Basel Convention applies
- ▶ Informal economies are often central to waste and debris management but can have significant social, health and human rights issues
- ▶ A lack of planning makes for a mess

Words of Opportunity

- ▶ Livelihoods
- ▶ More often than not, it is **better to not refer to debris management** but cast these efforts as *livelihoods support*

Resources

- ▶ **Global Shelter Cluster Green Team**
- ▶ **Joint Environment Unit Environmental Emergencies Centre**
(<https://eecentre.org/>)
- ▶ **The WREC Project: Environmental Sustainability in Humanitarian Logistics** (<https://logcluster.org/en/blog/wrec-project>)
- ▶ **Joint Initiative on Sustainable Humanitarian Assistance Packaging Waste Management** (<https://eecentre.org/2019/07/15/https-www-eecentre-org-2019-07-15-sustainable-humanitarian-packaging-waste-management/>)
- ▶ **Disaster Waste Management Guidelines**
(https://resources.eecentre.org/resources/disaster-waste-management-guidelines-dwmg-online/?_gl=1%2Akvabn8%2A_ga%2ANzg3ODAwNzczLjE3MTU1MDgxNzg.%2A_ga_E60ZNX2F68%2AMTcyNDcxNDc2OC44LjEuMTcyNDcxNDc4My40NS4wLjA)
- ▶ **Options for Humanitarian Packaging Reuse, Repurposing and Recycling** (<https://eecentre.org/wp-content/uploads/2019/07/Options-for-Humanitarian-Packaging-Reuse-Repurposing-and-Recycling.pdf>)



And experts!

Disasters, Waste and Debris Questions?

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The Take-Away

Plan to manage debris:

*Better for the disaster
survivors*

Better for the environment