

# **Nepal Earthquake 2015 | Guidance and Documents (DRAFT)**

## **SECTION A: Seizmic Engineering**

#### **ESSENTIAL** Reading Top 4 documents

Title	Date	Document Type	Author	Description
Responding to Earthquakes 2008: Learning from earthquake relief and recovery operations	2008	Briefing document	ALNAP & Provention Consortium	Lessons learnt from humanitarian responses to earthquakes over the previous 30 years.  Summarises main important findings concerning relief & recovery, makes recommendations.  Provides links to online resources and extensive reference list.
IAEE Guidelines for Earthquake Resistant Non-Engineered Construction	2004	Guidelines	International Association for Earthquake EngineeringÂ	Guidelines for earthquake resistant housing - basic concepts that determine the performance of constructions when subjected to high intensity earthquakes - formulation of simplified design rules - practical construction procedures, both intended to prevent system collapse and to control the level of damage produced by earthquakes. Emphasis is placed on basic principles and simple solutions that can be applied to different types of structural systems, for low-cost housing construction
Nepal Building Code 203:1994 Guidelines For Earthquake Resistant Building Construction: Low Strength Masonry	1994	Building Code (80 pages)	Government of Nepal	Nepal Government building code for the earthquake resistance of low- strength masonry construction
Nepal Building Code 204:1994 Guidelines For Earthquake Resistant Building Construction: Earthen Building	1994	Building Code (73 pages)	Government of Nepal	Nepal Government building code for the earthquake resistance of earthen buildings

#### **RECOMMENDED** Reading

Title	Date	Document Type	Author	Description
Manual for Restoration and Retrofitting of Rural Structures in Kashmir	2007	Guidlelines (136 pages)	UNESCO	Technical guidelines from earthquake response in the region, This manual was prepared to assist in the restoration and retrofitting of structures located in the rural areas of earthquake affected Kashmir. It covers damage, assessment, restoration and retrofitting, and includes case studies.
Earthquake 8/10 Learning from Pakistans Experience	2007	Case study (107 pages)	NDMA (Pakistan)	What happens after a major earthquake, Report on Pakistan's response to the 2005 earthquake. Describes earthquake and its impact, the response strategy, rescue & relief operations, health services, displaced persons and emergency shelter, restoration of infrastructure, reconstruction, key partners. Describes challenges & lessons learnt.
Post-Disaster Shelter: Ten Designs	2013	Book (126 pages)	IFRC & RCS	Advice on designing post disaster housing, Includes six shelter solutions from National Red Cross and Red Crescent Societies and four shelter solutions from other leading humanitarian agencies. A working group consisting of technical representatives from these and other National Societies and agencies was established to identify the preferred designs and to oversee the engineering review and detail guidance to be included. The schemes selected reflect a range of disaster contexts and climatic conditions, differing materials and building technologies, and different approaches to the process of sheltering including temporary, transitional, progressive and core shelter.

## A-00 | BUILDING CODES (NEPAL)

Title	Date	Document Type	Author	Description
Nepal Building Code - Need, Development Philosophy And Means Of Implementation	2000	Analysis(7 pages)	Yogeshwar K PARAJULI, Jitendra K BOTHARA, Amod M DIXIT, Jyoti P PRADHAN And Richard D SHARPE Publisher Unknown	Commentary on the development and application of the Nepal Building Code
Nepal Building Code 000 : 1994 Requirements For State-Of-The Art Design An Introduction	1994	Building Code(16 pages)	Government of Nepal Ministry of Physical Planning and Works Department of Urban Development and Building Construction Kathmandu	Introduction to the Nepal Building codes and how to use them.
Nepal Building Code 101 : 1994  Materials Specifications	1994	Building Code (44 pages)	Government of Nepal (As above)	This standard sets out the minimum requirements of building materials including storage, transportation and testing
Nepal building code 102 : 1994 Unit weight of materials	1994	Building Code (7 pages)	Government of Nepal (As above)	This Nepal Standard adopts the Indian Code IS:875 (Part 1) - 1987
Nepal building code 103 : 1994 Occupancy load (imposed load)	1994	Building Code (7 pages)	Government of Nepal (As above)	This Nepal Standard for Occupancy Load adopts the Indian Code IS:875 (Part 2) - 1987 Code of Practice for Design Loads (Other than Earthquake) for Buildings and Structures, Part 2 Imposed Load, (Second Revision)
Nepal Building Code 104 : 1994 Wind Load	1994	Building Code (6 pages)	Government of Nepal (As above)	This Nepal Standard comprises the India Standard IS:875 (Part 3) 1987 with local amendments set out in this document.
Nepal Building Code 105 : 1994 Seismic Design Of Buildings In Nepal	1994	Building Code (34 pages)	Government of Nepal (As above)	This standard sets down requirements for the general structural design and seismic design loadings for structures. This document needs to be applied in conjunction with, IS 4326 - 1976 Code of Practice for Earthquake Resistant Design and Construction of Buildings
Nepal Building Code 106 : 1994 Snow Load	1994	Building Code (10 pages)	Government of Nepal (As above)	This Nepal Standard on "Snow Load" comprises the Indian Standard IS: 875 (Part 4) 1987 : "Code of practice for design loads (other than earthquake) for Buildings and structures (Second Revision)â€□with amendments set out in this document
Nepal Building Code 107 : 1994 Provisional Recommendation On Fire Safety	1994	Building Code (10 pages)	Government of Nepal (As above)	This Standard covers the basic requirements for fire safety in the design of ordinary buildings
Nepal Building Code 108 : 1994 Site Consideration For Seismic Hazards	1994	Building Code (18 pages)	Government of Nepal (As above)	This document sets out some of the factors to be considered during site selection for buildings in order to minimise the risks to the buildings from both primary and secondary seismic hazards. It also outlines the fundamental requirements for site investigation for the foundation design of buildings.
Nepal Building Code 110 : 1994 Plain And Reinforced Concrete	1994	Building Code (10 pages)	Government of Nepal (As above)	This Nepal Standard adopts Indian Code IS 456-1978 Code of Practice for Plain and Reinforced Concrete (Third Revision) amended so as to meet the conditions of Nepal. Need to refer to the Indian Code
Nepal Building Code 111:1994 Steel	1994	Building Code (10 pages)	Government of Nepal (As above)	This standard applies to general construction in steel. It adopts to Indian Code IS 800-1984. Need to refer to the indian code.
Nepal Building Code 112:1994 Timber	1994	Building Code (26 pages)	Government of Nepal (As above)	This standard covers the general principle involved in the design of structural timber in buildings. It also covers the specifications for structural timber for use in buildings including, classification of such timber into suitable grades, as well as nail joint timber construction. Refers to Indian Standard IS: 883-1970 Code of Practice for Design of Structural Timber in Buildingâ€□(Third revision) and IS: 2366-1983 Code of Practice for Nail-Jointed Timber Construction(First Revision)
Nepal Building Code 113:1994 Aluminium	1994	Building Code (10 pages)	Government of Nepal (As above)	This document is not intended to be a definitive design standard. Rather it is a series of guidelines intended only for the designer of simple aluminium structures

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Nepal Building Code 114:1994 Construction Safety	1994	Building Code (10 pages)	Government of Nepal (As above)	This standard covers provisions for the health and safety of workers in building construction and demolition work
Nepal Building Code 201:1994	1994	Building Code	Government of Nepal (As above)	
Nepal Building Code 202:1994 Mandatory Rules Of Thumb Load Bearing Masonry	1994	Building Code (58 pages)	Government of Nepal (As above)	The objective of these Mandatory Rules of Thumb (MRT) is to achieve the appropriate earthquake-resistant design of those buildings in Nepal which are: • not normally engineered • constructed of fired brick or stone masonry in cement or mud mortars • not more than two storeys high if built in stone masonry in cement mortar or fired brick in mud masonry • not more than three storeys high if built of fired brick in a cement mortar. This document includes suitable illustrations to explain the important points, sketches and sufficient data to proportion the critical strength elements correctly. The requirements are based on pre-engineered design calculations of typical structures meeting prescribed criteria.
Nepal Building Code 203:1994 Guidelines For Earthquake Resistant Building Construction: Low Strength Masonry	1994	Building Code (80 pages)	Government of Nepal (As above)	This document provides basic guidelines for the earthquake resistance of low-strength masonry (LSM) construction The recommendations are : • Mandatory for all types of LSM public buildings to be built throughout Nepal. • Mandatory for all LSM residential buildings to be built in Municipal and urban areas, where building permit process exists. • Advisory for LSM residential buildings in the rural areas
Nepal Building Code 204:1994 Guidelines For Earthquake Resistant Building Construction: Earthen Building	1994	Building Code (73 pages)	Government of Nepal (As above)	This document provides basic guidelines for the earthquake resistance of earthen buildings The recommendations set forth in this standard is : • Mandatory for all types of public earthen buildings to be built throughout Nepal. • Mandatory for all residential earthen buildings to be built in municipal and urban areas where a building permit process exists. • Advisory for residential earthen buildings in the rural areas
Nepal Building Code 205:1994  Mandatory Rules Of Thumb  Reinforced Concrete Buildings  Without Masonry Infill	1994	Building Code (38 pages)	Government of Nepal (As above)	The main objective of these Mandatory Rules of Thumb (MRT) is to provide ready-to-use dimensions and details for various structural and non-structural elements for up to three-storey reinforced concrete (RC), framed, ordinary residential buildings commonly being built by owner-builders in Nepal. Their purpose is to replace the non-engineered construction presently adopted with pre-engineered construction so as to achieve the minimum seismic safety requirements specified by NBC 105 (a draft Nepal Seismic Design Standard). This MRT is intended to cater primarily to the requirements of mid-level technicians (overseers and draughtspersons) who are not trained to undertake independently the structural design of buildings.
Nepal Building Code 205:2012 Ready To Use Guideline For Detailings Of Low Rise Reinforced Concrete Buildings Without Masonry Infill	2012	Building Code (52 pages)	Government of Nepal (As above)	The main objective of these Ready to Use Detailing Guideline (RUD) is to provide ready-to-use dimensions and details for various structural and non-structural elements for up to three-storey reinforced concrete (RC), framed, ordinary residential buildings commonly being built by owner-builders in Nepal.
Nepal Building Code 206:2003  Architectural Design Requirements	2003	Building Code (9 pages)	Government of Nepal (As above)	This module of Nepal National Building Code covers general building design requirements for the safety of occupants in a building during Earthquakes, Fires and Natural Disasters
Nepal Building Code 207:2003  Electrical Design Requirements For (Public Buildings)	2003	Building Code (18 pages)	Government of Nepal (As above)	This code includes general guidance for Electrical wiring installation.
Nepal Building Code 208:2003	2003	Building Code (39 pages)	Government of Nepal (As above)	This code gives guidelines for water supply provisions in different types of buildings.

## A-00 | BUILDING CODES (INDIA)

Title	Date	Document Type	Author	Description
Indian Standard 875 (1987) Code Of Practice For Design Loads (Other Than Earthquake) For Buildings And Structures: Part 1 Dead Loads	1987, Revision 3.1 1997	Building Standard (39 pages)	Bureau of Indian Standards, New Delhi	This standard deals with dead loads to be assumed in the design of buildings.
Indian Standard 875 (1987) Code Of Practice For Design Loads (Other Than Earthquake ) For Buildings And Structures: Part 2 Imposed Loads	1987, Revision 3.1 1997	Building Standard (19 pages)	Bureau of Indian Standards, New Delhi	This standard deals with imposed loads on buildings produced by the intended occupancy or use.

## A-01 | GUIDANCE

Title	Date	Document Type	Author	Description
Seismic Resistant Housing Pakistan	2005- 2008	Case study (4 pages)	Article 25	Case study of seismic resistant housing in Pakistan following the 2005 earthquake including plans and details
Improving The Earthquake Resistance Of Small Buildings, Houses And Community Infrastructure	2006	Field manual (30 pages)	Gregory A. J. Szakats. AC Consulting Group Limited Consulting Engineers, Wellington, New Zealand	The booklet presents recommendations for improving the earthquake resistance of houses, small buildings and other structures: The recommendations cover: • The basic principles of earthquake resistant construction • Guidance for improvements to design and detailing practice for small engineered buildings and infrastructure • Guidance for design and detailing for non-engineered buildings • Guidance on improvement in construction quality (materials and workmanship) and construction monitoring (we emphasise the importance of quality materials, construction and thorough construction inspection).
Improving Earthquake Resistance of Buildings - Guidance	nd	Guidelines (89 pages)	Dr Arya, for Government of India.	Principles covering causes of earthquakes, effects on buildings, and earthquake safety engineering design.
Confined Masonry Vs. Rc Frame With Masonry Infill	nd	Guideline (14 pages)	Buildchange	This Guideline covers the design principles for single story confined masonry houses with lightweight (flexible) roofs in earthquake situations.
Earthquake-Resistant Construction of Adobe Buildings: A Tutorial	2003	Tutorial (25 pages)	Marcial Blondet Pontificia Universidad Catolica del Peru Gladys Villa Garcia M. Pontificia Universidad Catolica del Peru Svetlana Brzev British Columbia Institute of Technology	Guidelines on how to increase earthquake resistance of adobe buildings
2005 Pakistan Earthquake Housing Reconstruction	2006- 2010	Case study (17 pages)	ERRA	Case study of owner driven housing reconstruction following 2005 Pakistan earthquake including programming information.
Guidelines for Earthquake- Resistant Construction of Non- Engineered Rural and Sub Urban Houses in Pakistan	2006	Guidelines (95 pages)	ERRA	This Guideline for Pakistan focuses on earthquake safer construction of mostly prevailing nonengineered houses made with stone, brick and block in mud mortar or cement mortar and also tries to cover the RCC construction that are prevailing in rural and sub urban areas. This guideline is mainly for enhancing the seismic safety of residential houses and is aimed at local construction workers and affected families
Repair and strengthening guide for earthquake damaged lowrise domestic buildings in Gujarat, India	2001	Guidelines (91 pages)	Gujarat Relief Engineering Advice Team (GREAT)	This Guide is specific to Gujarat but may be applicable to regional contexts. It is primarily aimed at the owner-occupier or builder who wishes to carry out proper repairs or strengthening works to his damaged building to improve its safety. It is also applicable to new low-rise buildings, defined as up to 2 storey structures plus roof.
Guidelines For Repair, Restoration And Retrofitting Of Masonry Buildings In Kachchh Earthquake Affected Areas Of Gujarat	2002	Guidelines (26 pages)	Gujarat State Disaster Management Authority	These guidelines provide guidelines for repair restoration and retrofit of masonry buildings in line with the requirements of the seismic-zoning map of India Definitions, concept s and strengthening advice is provided.
Manual for Restoration and Retrofitting of Rural Structures in Kashmir	2007	Guidlelines (36 pages)	UNESCO	This manual was prepared to assist in the restoration and retrofitting of structures located in the rural areas of earthquake affected Kashmir. It covers damage, assessment, restoration and retrofitting, and includes case studies.
Construction Manual for Earthquake-Resistant Houses Built of Earth	2001	Guidelines (52 pages)	Gernot Minke	Manual for earthquake-resistant construction

Earthquake Protection for Poor Peoples' Houses	1990	Guidelines (6 pages)	Theo Schilderman	Design guidelines for earthquake-resistant construction
Proposal for Risk Reduction Interventions in Balochistan Earthquake Reconstruction	2009	Guidelines (34 pages)	UN-HABITAT Pakistan	Principles and proposed solutions for reconstruction, with photographic illustrations and detailed technical guidelines for mud construction and fired-brick reinforced masonry.
Retrofitting Simple Buildings  Damaged by Earthquakes	2010	Guidelines (77 pages)	Teddy Boen & Associates, WSSI	Principles and basic requirements regarding the retrofitting of non-engineered constructions that are damaged during earthquakes.
Technical guide for master trainers: Earthquake resistant buildings using local materials in Kafal Ghar (Kashmir, Pakistan)	2006	Guidelines (134 pages)	Matthieu Dupont de Dinechin & Olivier Moles, CRATerre-ENSAG	Guidelines for projects of reconstruction of the village of Kafal Ghar, in the Bagh district, Kashmir, Pakistan. Teaching materials (lesson plans, presentations) and technical guidelines.
Bhatar construction Timber reinforced masonry	2007	Guidelines	Swiss Agency for development, French red cross	An illustrated guide for craftsmen
Bhatar construction Timber reinforced masonery		Guidelines (38 pages)		An introduction to the Apprenticeship Center practical training
Bhatar construction Timber reinforced masonery	2007	Guidelines	ERRA, A&D, FRC	An introduction to the apprenticeship center , Practical training Guidelines for reconstruction project in Pakistan.

#### A-02 | ASSESSMENTS

Title	Date	Document Type	Author	Description
The Survey of Earthquake Damaged  Non-Engineered Buildings †A Field  Guide by EEFIT	-	Guidelines (39 pages)	Richard Hughes &  Zygmunt A.  Lubkowski	Guidelines for the assessment of earthquake damaged buildings. Includes: safety precautions; procedure in case of finding trapped persons; equipment; survey method; inspection of construction techniques, building damage, building materials; general field surveys.
Post Earthquake Emergency Assessment of building safety	?2005	Summary	-	Notes on need for assessment of building safety 3 months after 2005 earthquake.

#### A-03 | LESSONS

Title	Date	Document Type	Author	Description
Responding to Earthquakes 2008: Learning from earthquake relief and recovery operations	2008	Briefing document	ALNAP & Provention Consortium	Report summarising lessons learnt from humanitarian responses to earthquakes over the previous 30 years. Summarises main important findings concerning relief & recovery, makes recommendations. Provides links to online resources and extensive reference list.
Earthquake resistant housing - Peru	1997	Case study (10 pages)	Practical Action	Description of Practical Action's housing reconstruction intervention in Peru following earthquake in Alto Mayo region in 1990.
Earthquake Rehabilitation Project Gujarat, India		Case study	Swiss Solidarity, SEWA, Skat Foundation, Swiss Red Cross	Summary of reconstruction project in Gujarat, India, following 2001 earthquake. Includes lessons learnt.
Earthquake 8/10 ‑ Learning from  Pakistan's Experience	2007	Case study (107 pages)	NDMA (Pakistan)	Report on Pakistan's response to the 2005 earthquake. Describes earthquake and its impact, the response strategy, rescue & relief operations, health services, displaced persons and emergency shelter, restoration of infrastructure, reconstruction, key partners. Describes challenges & lessons learnt.
Long-term Reconstruction Towards Prevention – Obstacles and Opportunities	-	Presentation (24 pages)	Heinrich Gloor, Swiss Humanitarian Aid	Bullet point presentation detailing key points for consideration in reconstruction after earthquakes
Survivors Amongst the Rubble - Traditional Timber-laced Masonry Buildings that Survived the Great 1999 Earthquakes in Turkey and the 2001 Earthquake in India, While Modern Buildings Fell	2002	Report (17 pages)	Randolph Langenbach	Paper assessing the construction of buildings that survived the earthquakes in Turkey in 1999 and India in 2001, and in other areas.
Transitional Shelters: 8 Designs	2011	Book (96 pages)	IFRC & RCS	Provides a range of defined shelter solutions to inform the post disaster shelter response. Leading National Red Cross and Red Crescent Societies have collaborated to commonly agree a recommended series of alternative transitional shelters. The selected designs provide an immediate range of options to inform shelter decision-makers in the immediate aftermath of a disaster, with the precise knowledge of their

				structural performance and detailed information to enable rapid procurement. Each design is also accompanied by notes advising on how the scheme can be adapted to meet a range of different contexts and configurations.
Post-Disaster Shelter: Ten Designs	2013	Book (126 pages)	IFRC & RCS	Follow up to "Transitional Shelters: 8 Designsâ€□ Includes six shelter solutions from National Red Cross and Red Crescent Societies and four shelter solutions from other leading humanitarian agencies. A working group consisting of technical representatives from these and other National Societies and agencies was established to identify the preferred designs and to oversee the engineering review and detail guidance to be included. The schemes selected reflect a range of disaster contexts and climatic conditions, differing materials and building technologies, and different approaches to the process of sheltering including temporary, transitional, progressive and core shelter.

## A-04 | POSTERS

Title	Date	Document Type	Author	Description
Prepare for the rains	41699	Poster (1 page)	Shelter Cluster Nepal & Camp Coordination and Camp Management	Poster illustrating how to manage shelters in rain & flooding
Plastic Sheeting: Make it Last Longer	41334	Poster (1 page)	Shelter Cluster Nepal	Poster illustrating how to avoid damage to plastic sheeting
Fixing Plastic Sheeting - Nepali	Not stated	Poster (2 pages)	Shelter Cluster Nepal	Poster illustrating how to fix plastic sheeting – English to Nepali translation
Safe Retrofitting ‑ Creole	Not stated	Poster (2 pages)	Cordaid & Build Change	
Are You Ready for an Earthquake?	36008	Poster (2 pages)	American Red Cross, FEMA, USGS	Poster providing practical advice on how to prepare for an earthquake (text)
How to protect yourself during an earthquake	2002	Poster (3 pages)	-	Poster advising how to protect yourself during an earthquake (text)
Preparing for an earthquake	2002	Poster (12 pages)	-	Poster providing practical advice on how to prepare for an earthquake (text)
What to do after an earthquake	2002	Poster (2 pages)	-	Poster advising what to do after an earthquake (text)
Construction booklet-Concrete		Poster (4 pages)	-	Illustrations & text about reconstruction, language not stated.
Construction booklet-Cement		Poster (4 pages)	-	Illustrations & text about reconstruction, language not stated.
Construction booklet-EQ-Resistant		Poster (4 pages)	-	Illustrations & text about reconstruction, language not stated.
Construction booklet-Piller		Poster (4 pages)	-	Illustrations & text about reconstruction, language not stated.

## A-05 | SITREPS AND REPORTS

Title	Date	Document Type	Author	Description
The Study on Earthquake Disaster Mitigation in the Kathmandu Valley Kingdom of Nepal	37316	Report	Japan International Cooperation Agency & Ministry of Home Affairs, HMG of Nepal	Study of earthquake disaster mitigation in the Kathmandu Valley. Objectives: to formulate a plan for earthquake disaster mitigation in the Kathmandu Valley; to carry out technology transfer to Nepalese counterpart personnel; to create a database on earthquakes and for earthquake disaster estimation. Includes analysis of a number of models of earthquake scenarios, & suggested programmes for disaster mitigation and managements based on study results. Also discussion of issues relating to maintenance of governance; protecting life & property; strengthening socio-economic system.
Pakistan learning centrs- Report on Model Houses	October 2007 to May 2008	Report	Federal Department of Foreign Affairs FDFA Swiss Agency for Development and Cooperation SDC Swiss Humanitarian Aid and SHA	

#### A-09 | CONTINGENCY AND PLANNING

Title	Date	Document Type	Author	Description
Shelter Cluster Nepal - Contingency Plan for the Coordination of Shelter Preparedness and Response in Nepal	Aug 2009 – updated Jan 2014	Contingency Plan	Shelter Cluster Nepal & Government of Nepal Ministry of Urban Development	Details preparedness and response actions to enable the shelter cluster to adequately and effectively meet the shelter needs of a population affected by the proposed disaster scenarios. Includes: hazard and risk analysis of two disaster scenarios - major earthquake in the Kathmandu Valley, & floods in the Terai region; definitions of roles & responsibilities related to the shelter cluster; response & preparedness plans for each scenario; resource matrix; contact list; recommended emergency shelter models; response kit specifications; Multi-Cluster Initial Rapid Assessment tool.
Kathmandu Valley Post- Earthquake Debris Management Strategic Plan – Executive Summary	2014	Strategic Plan	Government of Nepal Ministry of Federal Affairs and Local Development	Summarises the strategic plan to facilitate debris management in the Kathmandu Valley in a post-earthquake situation, to prevent confusion in the coordination structure and roles among each stakeholder as well as to reduce the effects of the rubble impediment to recovery. Intends to enable government agencies, humanitarian actors, private sector and local communities to plan, establish and coordinate responses to manage debris to provide immediate relief in the midst of an emergency and build back better.

## **SECTION B: Reference Publications**

#### B-00 | HUMANITARIAN STANDARD

Title	Date	Document Type	Author	Description
Guidelines for assessment in emergencies	2008	Toolkit	IFRC	
Sphere Handbook English 2011		Humanitarian Standard	Sphere Project	
Transitional shelter guidelines.pdf		Guidelines	IOM	
Transitional settlement and reconstruction after natural disasters		Guidelines	DFID, OCHA, ShelterCentre	
Urban Shelter Guidelines		Guidelines	ShelterCentre, NRC	

#### B-01 | GENDER AND VULNERABILITY

Title	Date	Document Type	Author	Description
All Under One Roof Disability-inclusive shelter and settlements in emergencies	2015	Guidelines	cbm, Handicap Internarional,	
Guidelines for Creating Barrier-free Emergency Shelters	2009	Guidelines	ECHO, Handicap International	
Tip Sheet: Addressing Gender-based Violence (GBV)-related Risks in Shelter Assessments and Programme Design		Tip Sheet	Global Protection Cluster	
Guidance on including older people in emergency shelter programmes	2011	Guidelines	HelpAgeInternational, IFRC	
Women, Girls, Boys and men different needs – equal opportunities	2006	Handbook	IASC	

## B-02 | SHELTER PROGRAMMING

Title	Date	Document Type	Author	Description
Extending Impact - Factors inFluencing households to adopt hazardâ€resistant	2045	Study Paper (72	CDC	
construction practices in post†disaster settings	2015	Pages)	CRS	
HOW-TO GUIDE Managing Post-Disaster (Re)-Construction Projects	2011	Guidelines	CRS	
PASSA-Participatory Approach for Safe Shelter Awareness	2011	Toolkit	IFRC	

#### B-03 | ENVIRONMENT

Title		Document Type	Author	Description
The Green Recovery and Reconstruction Toolkit (GRRT)	2010	Toolkit	American Red Cross-WWF	
ENVIRONMENTAL IMPACT ASSESSMENT TOOLS AND TECHNIQUES		Toolkit	American Red Cross-WWF	

## B-04 | TECHNICAL AND NFI

Title	Date	Document Type	Author	Description
The IFRC Shelter Kit	2009	Guidelines	IFRC	
Plastic Sheeting	2007	Guidelines	IFRC-Oxfam	
Selecting NFIs for Shelter	2008	Guidelines	IASC	
Tents	2004	Guidelines	OCHA	
Timber as a construction material in humanitarian operations	2009	Guidelines	IFRC-OCHA	

#### B-05 | CASH AND MARKETS

Title	Date	Document Type	Author	Description
THE EMERGENCY MARKET				The EMMA toolkit is a guidance manual for humanitarian staff in sudden-onset emergencies. It aims to
MAPPING AND ANALYSIS	2011	Toolkit	EMMA	improve emergency responses by encouraging and assisting relief agencies to better understand, support
TOOLKIT				and make use of local market-systems in disaster zones.

Compiled by Cendep and IOM for the shelter cluster.