



# Réunion Cluster Abris

10 Janvier 2022

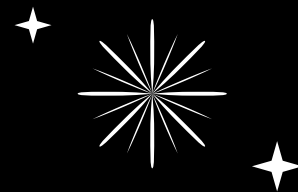
Réunion de coordination nationale

# 20

# 22



# Bonne Année!



**Cluster Abris Burkina Faso**  
ShelterCluster.org  
Coordination Humanitarian Shelter



**Cluster Abris Burkina Faso**  
ShelterCluster.org  
Coordinating Humanitarian Shelter



Tour de table: merci de mettre dans le chat vos  
prénoms et organisations

# Ordre de Jour

## **1. Revue des points d'action de la réunion du 13 Décembre 2021**

## **2. Intervention des partenaires**

- Présentation sur les produits contre les moustiques - 15mn
- Présentation du partenaire CRATerre sur le profile habitat au Burkina Faso - 15mn

## **3. Interventions du cluster abris**




- Discussions et validation du plan d'action 2022

## **4. Divers**

- Planification des réunions du cluster abris
- Retours sur la révision de la stratégie (Tous les partenaires)
- Mouvement d'un village à Djibo



# 1. Revue des points d'action

POINTS D'ACTION	ETAT
<p><b><u>L'équipe cluster</u> : <i>Partager les différentes présentations aux partenaires.</i></b></p> <p>Les différentes présentations faites lors de la réunion de coordination nationale du 13 Décembre ont été partagées aux partenaires</p>	
<p><b><u>Equipe cluster</u> : <i>Partager le draft du plan d'action 2022 du cluster aux partenaires pour commentaires.</i></b></p> <p>Le draft du plan d'action 2022 du cluster a été partagé aux partenaires pour commentaires et inputs</p>	
<p><b><u>Equipe cluster</u> : <i>Envoyer la stratégie révisée du cluster aux partenaires pour commentaires et inputs.</i></b></p> <p>La copie révisée de la stratégie du cluster a été partagée aux partenaires pour commentaires et inputs</p>	



## **2. Interventions des partenaires**

### **2.1 Présentation sur les produits contre les moustiques**

### **2.2. Présentation du partenaire CRATerre sur le profile habitat du Burkina Faso**



# Présentation MAiA

WASH national cluster – Janvier 2022



Quelque part en Afrique de l'Ouest ...

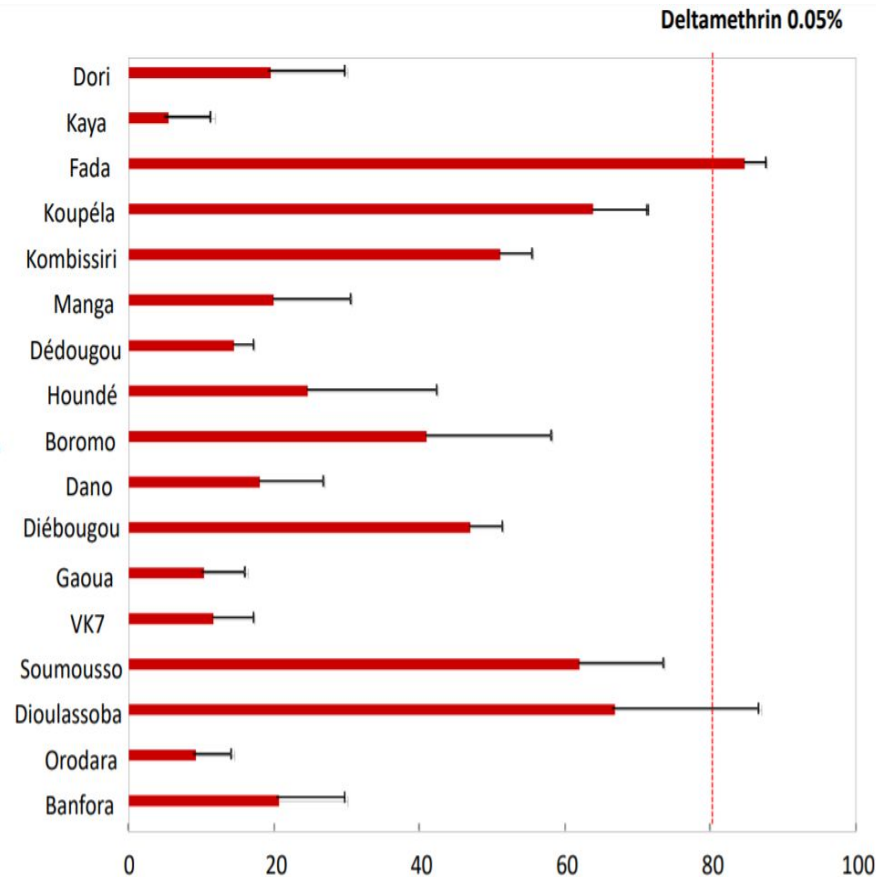


An illustration of a village scene. In the foreground, a woman is washing clothes in a large tub. To her right, another person is sitting on a blue mat, cooking in a large pot. In the background, there are several traditional huts with thatched roofs. A person is visible inside one of the huts. The scene is set in a sandy area with some trees and a large yellow sun or moon in the sky. The overall style is colorful and stylized.

**Les moustiques sont plus nombreux**

Ils meurent moins au contact des moustiquaires.

# La moustiquaire perd en efficacité



*Taux de mortalité des moustiques*

Considérées comme l'arme la plus efficace contre le paludisme, les moustiquaires imprégnées ont été massivement distribués en Afrique.

Mais les mêmes insecticides (pyrethrinoïdes) ont été utilisés dans les champs, notamment de coton.

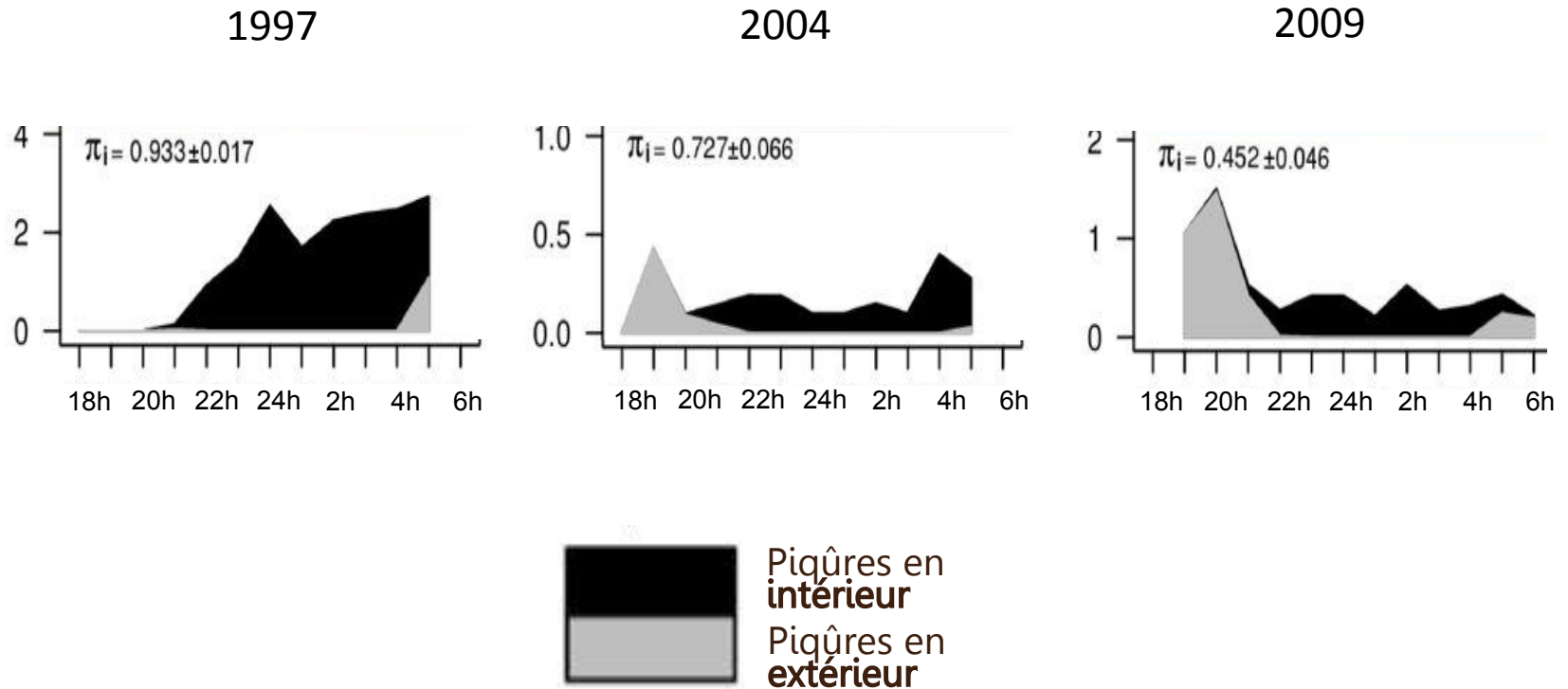
A force d'être exposés, **les moustiques sont devenus résistants et ont changé leur comportements.**



Les moustiques  
piquent plus  
**en soirée**  
**et en extérieur.**

# Les moustiques piquent plus le soir en extérieur

Nbre moyen de piqûres des *Anophele funestus* dans la vallée de Kilombero, en Tanzanie.



*TL Russell, NJ Govella, S Azizi, CJ Drakeley, SP Kachur, GF Killeen - Increased proportions of outdoor feeding among residual malaria vector populations following increased use of insecticide-treated nets in rural Tanzania.*

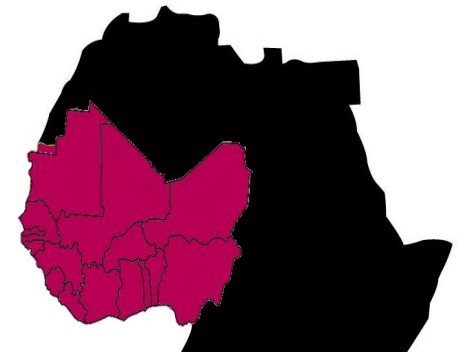
# Le paludisme repart à la hausse



1 enfant meurt du  
paludisme toutes  
les  
**2 minutes** en  
Afrique.

**x2**

Le nombre de cas  
**a doublé** en  
Afrique de l'Ouest  
depuis 2010.



**64 millions de cas**  
dans la zone  
en 2019.

# « Des outils sont nécessaires pour la protection des personnes lorsqu'elles se trouvent en dehors de leur domicile »

Stratégie technique de l'OMS pour le paludisme 2016-2030



# Des entrepreneurs engagés au Burkina



**Franck Langevin**

Stratégie, marketing, finance

Diplômé de Stanford, DCU et Neoma  
12 ans d'expérience en innovation

**Gérard Niyondiko**

R&D, Production

Ingénieur diplômé 2iE  
7 ans d'expérience, Professeur en  
chimie

# Notre mission

Sauver 100.000  
vies  
du paludisme

en s'appuyant sur les habitudes  
quotidiennes des populations africaines.



# La pommade, une grande opportunité



**80% des enfants du Burkina sont pommadés**

La pommade est utilisée tous les jours sur les enfants, premières victimes du paludisme.



**au moment où les moustiques piquent**

La pommade est utilisée généralement le soir à 17h, au moment où les Anophèles commencent à piquer.



**là où ils sont les plus vulnérables**

La pommade est particulièrement utilisée dans les zones rurales et semi-urbaines.

# Fruit de 3 ans de recherche collaborative



Etude sociologique



**CNRFP**

Centre National de Recherche  
et de Formation sur le Paludisme

Tests d'efficacité anti-moustique



**LNSP**

Laboratoire National de  
Santé Publique

Tests physico-chimiques

**ISIPCA**

- PARIS -

Etude sensorielle



Développement de microcapsules

**ATOUT REACH**

Etude de toxicité

**Comprendre**

**Concevoir**

**Tester**

# Découvrez MAÏA®

MAÏA est une pommade  
2-en-1 conçue pour offrir à  
toute la  
famille une double protection.



**Hydratation en profondeur**  
grâce à un beurre de karité  
nourrissant

**8h de protection  
anti-moustique**

constatée au Burkina Faso et en  
Tanzanie

**Abordable**

A partir de 1,10€ le pot  
de 100ml

Source :

Alphonse Traore, Gérard Niyondiko, Antoine Sanou et al. Laboratory and field evaluation of MAÏA®, an ointment containing N, N-Diethyl-3-methylbenzamide (DEET) against mosquitoes in Burkina Faso, 24 August 2020, PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-58726/v1>]  
Mbuba, E., Odufuwa, O.G., Tenywa, F.C. et al. Single blinded semi-field evaluation of MAÏA® topical repellent ointment compared to unformulated 20% DEET against *Anopheles gambiae*, *Anopheles arabiensis* and *Aedes aegypti* in Tanzania. *Malar J* 20, 12 (2021). <https://doi.org/10.1186/s12936-020-03461-9>

# Une production ouest-africaine

A satellite-style map of West Africa. The map shows the coastline of the Gulf of Guinea and the Atlantic Ocean. Two semi-transparent grey boxes with white text are overlaid on the map. The top box is positioned over Burkina Faso and has a white line pointing to the country. The bottom box is positioned over Côte d'Ivoire and has a white line pointing to the country. The map shows various geographical features like rivers and terrain.

## Burkina Faso

Ingrédients  
majoritairement sourcés  
localement (beurre de  
karité, huile de coton, cire  
d'abeille)

## Côte d'Ivoire

Production industrielle  
Assurance qualité

# Efficacité prouvée scientifiquement

Mbuba et al. *Malar J* (2021) 20:12  
<https://doi.org/10.1186/s12936-020-03461-9>

Malaria Journal

## RESEARCH

## Open Access



### Single blinded semi-field evaluation of MAIA<sup>®</sup> topical repellent ointment compared to unformulated 20% DEET against *Anopheles gambiae*, *Anopheles arabiensis* and *Aedes aegypti* in Tanzania

Emmanuel Mbuba<sup>1,2,3\*</sup>, Olukayode G. Odufuwa<sup>1,2,4</sup>, Frank C. Tenywa<sup>1</sup>, Rose Philipo<sup>1</sup>, Mgeni M. Tambwe<sup>1,2,3</sup>, Johnson K. Swai<sup>1</sup>, Jason D. Moore<sup>1,2</sup> and Sarah J. Moore<sup>1,2,3</sup>

#### Abstract

**Background:** *N,N*-Diethyl-3-methylbenzamide (DEET) topical mosquito repellents are effective personal protection tools. However, DEET-based repellents tend to have low consumer acceptability because they are cosmetically unappealing. More attractive formulations are needed to encourage regular user compliance. This study evaluated the protective efficacy and protection duration of a new topical repellent ointment containing 15% DEET, MAIA<sup>®</sup> compared to 20% DEET in ethanol using malaria and dengue mosquito vectors in Bagamoyo Tanzania.

**Methods:** Fully balanced 3 × 3 Latin square design studies were conducted in large semi-field chambers using laboratory strains of *Anopheles gambiae sensu stricto*, *Anopheles arabiensis* and *Aedes aegypti*. Human volunteers applied either MAIA<sup>®</sup> ointment, 20% DEET or ethanol to their lower limbs 6 h before the start of tests. Approximately 100 mosquitoes per strain per replicate were released inside each chamber, with 25 mosquitoes released at regular intervals during the collection period to maintain adequate biting pressure throughout the test. Volunteers recaptured mosquitoes landing on their lower limbs for 6 h over a period of 6 to 12-h post-application of repellents. Data analysis was conducted using mixed-effects logistic regression.

**Results:** The protective efficacy of MAIA<sup>®</sup> and 20% DEET was not statistically different for each of the mosquito strains: 95.9% vs. 97.4% against *An. gambiae* (OR = 1.53 [95% CI 0.93–2.51]  $p = 0.091$ ); 96.8% vs. 97.2% against *An. arabiensis* (OR = 1.08 [95% CI 0.66–1.77]  $p = 0.757$ ); 93.1% vs. 94.6% against *Ae. aegypti* (OR = 0.76 [95% CI 0.20–2.80]  $p = 0.675$ ). Average complete protection time (CPT) in minutes of MAIA<sup>®</sup> and that of DEET was similar for each of the mosquito strains: 571.6 min (95% CI 558.3–584.8) vs. 575.0 min (95% CI 562.1–587.9) against *An. gambiae*; 585.6 min (95% CI 571.4–599.8) vs. 580.9 min (95% CI 571.1–590.7) against *An. arabiensis*; 444.1 min (95% CI 401.8–486.5) vs. 436.9 min (95% CI 405.2–468.5) against *Ae. aegypti*.

Traoré et al. *Malar J* (2021) 20:220  
<https://doi.org/10.1186/s12936-021-03755-6>

Malaria Journal

## RESEARCH

## Open Access



### Laboratory and field evaluation of MAIA<sup>®</sup>, an ointment containing *N,N*-diethyl-3-methylbenzamide (DEET) against mosquitoes in Burkina Faso

Alphonse Traoré<sup>1</sup>, Gérard Niyondiko<sup>2</sup>, Antoine Sanou<sup>1</sup>, Franck Langevin<sup>2</sup>, N'Falé Sagnon<sup>1</sup>, Adama Gansané<sup>1</sup> and Moussa Wamdaogo Guelbeogo<sup>1\*</sup>

#### Abstract

**Background:** Malaria vector control relies upon the use of insecticide-treated nets and indoor residual spraying. However, as the emergency of insecticide resistance in malaria vectors grows, the effectiveness of these measures could be limited. Alternative tools are needed. In this context, repellents can play an important role against exophilic and exophilic mosquitoes. This study evaluated the efficacy of MAIA<sup>®</sup>, a novel repellent ointment, in laboratory and field conditions in Burkina Faso.

**Methods:** For laboratory and field assessment, 20 volunteers were enrolled and trained for nocturnal collection of mosquitoes using human landing catches (HLC). In the laboratory tests, 2 mg/sq cm of treatment (either MAIA<sup>®</sup> or 20% DEET) were used to assess median complete protection time (CPT) against two species: *Anopheles gambiae* and *Aedes aegypti*, following WHO guidelines. For both species, two strains consisting of susceptible and local strains were used. The susceptible strains were Kisumu and Bora Bora for *An. gambiae* and *Ae. aegypti*, respectively. For the field test, the median CPT of MAIA<sup>®</sup> was compared to that of a negative (70% ethanol) and positive (20% DEET) after carrying out HLCs in rural Burkina Faso in both indoor and outdoor settings.

**Results:** Laboratory tests showed median Kaplan-Meier CPT of 6 h 30 min for *An. gambiae* (Kisumu), 5 h 30 min for *An. gambiae* (Goden, local strain), and 4 h for *Ae. aegypti* for both the local and sensitive strain. These laboratory results suggest that MAIA<sup>®</sup> is a good repellent against the three mosquito species. During these field tests, a total of 3979 mosquitoes were caught. In this population, anophelines represented 98.5%, with culicines (*Aedes*) making up the remaining 1.5%. Among anopheline mosquitoes, 95% belonged to the *An. gambiae* complex, followed by *Anopheles funestus* and *Anopheles pharoensis*. The median CPT of 20% DEET and MAIA<sup>®</sup> were similar (8 h) and much longer than that of the negative control (2 h).

**Conclusions:** Results from the present studies showed that MAIA<sup>®</sup> offers high protection against anophelines biting indoors and outdoors and could play an important role in malaria prevention in Africa.

# Efficacité prouvée scientifiquement

Mbuba et al. *Malar J* (2021) 20:12  
<https://doi.org/10.1186/s12936-020-03461-9>

Malaria Journal

RESEARCH

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Single blinded semi-field evaluation of MAIA® topical repellent ointment compared to unformulated 20% DEET against *Anopheles gambiae*, *Anopheles arabiensis* and *Aedes aegypti* in Tanzania



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## Abstract

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**Methods:** Fully balanced 3 × 3 Latin square design studies were conducted in large semi-field chambers using laboratory strains of *Anopheles gambiae sensu stricto*, *Anopheles arabiensis* and *Aedes aegypti*. Human volunteers applied either MAIA® ointment, 20% DEET or ethanol to their lower limbs 6 h before the start of tests. Approximately 100 mosquitoes per strain per replicate were released inside each chamber, with 25 mosquitoes released at regular intervals during the collection period to maintain adequate biting pressure throughout the test. Volunteers recaptured mosquitoes landing on their lower limbs for 6 h over a period of 6 to 12-h post-application of repellents. Data analysis was conducted using mixed-effects logistic regression.

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« La pommade répulsive MAIA® offre une protection complète pendant 9 h contre les *An. Gambiae* et *An. Arabiensis*.

La pommade répulsive MAIA® peut être recommandée comme outil de prévention contre les moustiques piquant en extérieur dans les zones tropicales où la majorité des gens passent beaucoup de temps à l'extérieur avant de se coucher. »

Malaria Journal  
Janvier 2021

# Une démarche reconnue



2013



2017



2019



2019



2020

# Un brevet en cours de dépôt

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



WIPO | PCT



(10) International Publication Number  
**WO 2021/123876 A1**

(43) International Publication Date  
24 June 2021 (24.06.2021)

(51) International Patent Classification:  
*A01N 37/18* (2006.01) *A01P 17/00* (2006.01)  
*A01N 25/04* (2006.01)

(21) International Application Number:  
PCT/IB2019/060888

(22) International Filing Date:  
17 December 2019 (17.12.2019)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant: MAIA AFRICA SAS [BF/BF]; Rue 29.20, 12  
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(72) Inventors: NIYONDIKO, Gérard; Rue 29.20, 12 BP 499,  
Ouagadougou 12 (BF). LANGEVIN, Franck; Rue 29.20,  
12 BP 499, Ouagadougou 12 (BF).

# 1<sup>ère</sup> « B corp » au Burkina Faso



# Notre objectif d'ici 2024

1 million de  
pots

dans les pays les plus  
touchés par le  
paludisme





Comment  
distribuer  
MAÏA® ?

# 2 marchés ciblés



**Privé**

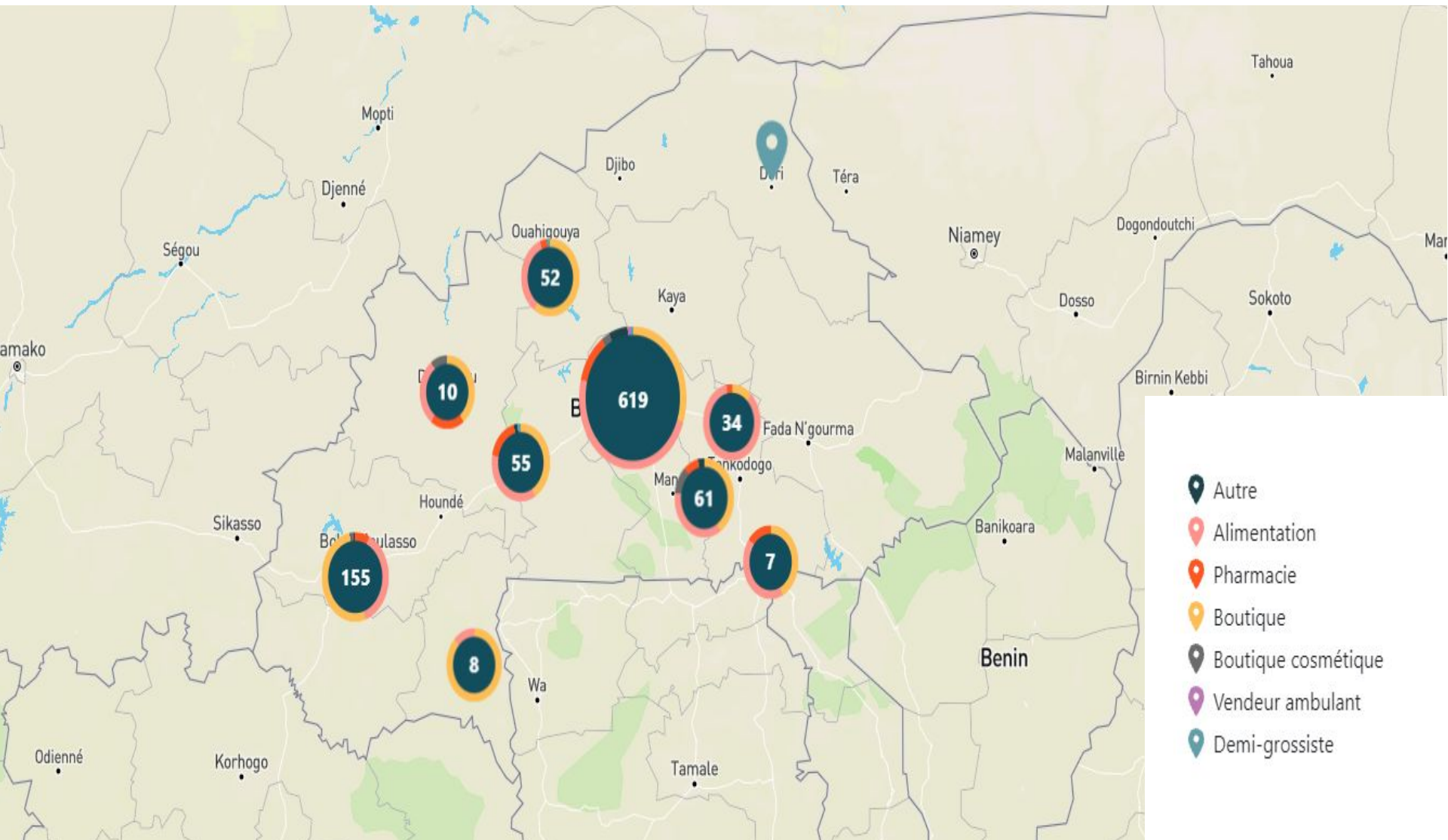


**ONG**

# Distribuer MAÏA comme un produit de grande consommation



# >120.000 pots vendus dans 1.000 points de vente



# 145M d'utilisateurs potentiels en Afrique de l'Ouest

	Share of population living with > \$3,2 a day	Nb inhabitants living with > \$3,20 a day
Bénin	53%	5 867 000
Burkina Faso	36%	7 200 000
Côte d'Ivoire	67%	15 960 000
Ghana	71%	21 968 569
Guinea	29%	3 821 643
Guinea-Bissau	44%	792 000
Mali	53%	9 805 000
Niger	25%	5 375 000
		59 780 000



# 2 marchés ciblés



Privé



ONG

# Protéger les PDI

**Le paludisme reste le principal problème de santé des déplacés internes** avec un taux d'infection de 74% (Etude CIEREA-PTCI 2020).

Comme l'indique les [recommandation de l'OMS de février 2021](#) (p.44), *"les répulsifs anti-moustique sont des méthodes potentielles de **prévention du paludisme** pour des groupes de population spécifiques, tels que **ceux qui vivent ou travaillent loin des structures d'habitation permanentes** (par exemple, les migrants, les réfugiés, les personnes déplacées à l'intérieur du pays). Dans ces situations, l'efficacité des moustiquaires imprégnées peut être réduite."*



# MAÏA distribuée en 2021

La pommade MAÏA a été intégrée dans **8.688 kits d'hygiène** (600ml par kit) par 4 acteurs :





Conscient des problématiques de santé publiques liés aux cas de paludisme dans ses zones d'intervention, ACTED a inclus des *pommades anti-moustiques Maïa* dans ses distributions en kits EHA (Eau, Hygiène et Assainissement) conduites entre juin et octobre 2021.. Une donation de la part de l'entreprise Maïa a permis à ACTED d'intégrer la distribution de ces pommades anti-moustiques aux populations les plus vulnérables dans ses activités. Les données du présent document sont extraites des entretiens réalisés lors des enquêtes post distribution (PDM) auprès des chefs de ménage bénéficiaires. Dans le cadre de ces enquêtes, 455 chefs de ménage ont été interrogés dont 51% de femmes et 49% d'hommes. 51% des répondants ont entre 30 et 50 ans, 28% plus de 50 ans et 21% moins de 30 ans.



**14 661 personnes** sont décédées à cause du **paludisme** en 2019 au Burkina Faso selon le *World malaria report 2020* publié par l'OMS

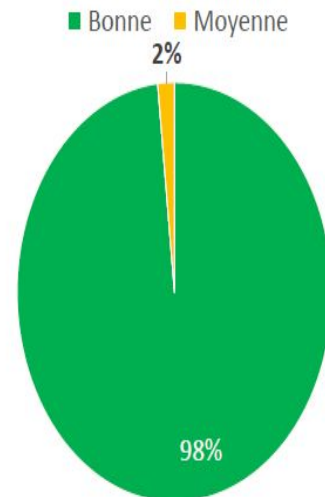


**27 104 individus**, très majoritairement des déplacés, ont bénéficié de la pommade *Maïa* grâce aux interventions d'ACTED entre les mois de juin et d'octobre 2021

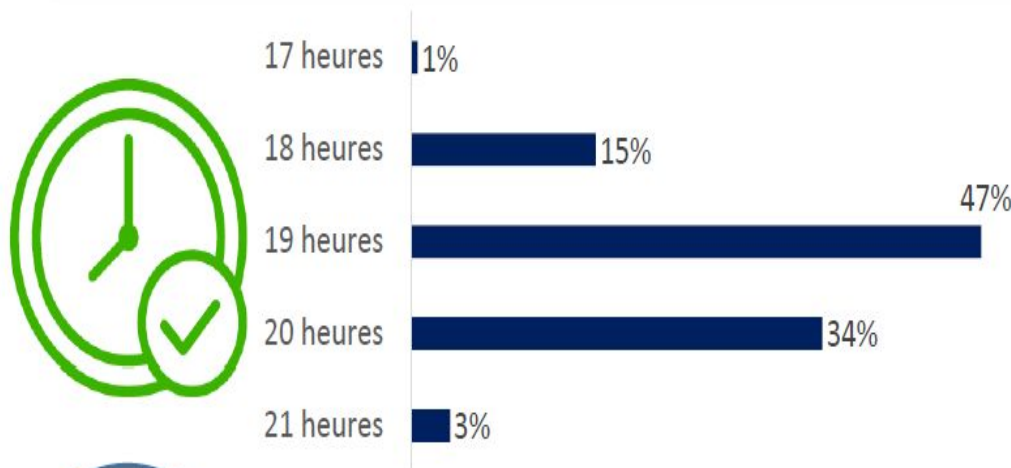
### Zones d'intervention de la mission ACTED au Burkina Faso



### Appréciation de la qualité de la pommade Maïa



- 86% des bénéficiaires déclarent que la pommade **Maïa** est **très efficace** contre les moustiques et 14% d'entre eux qu'elle est efficace.
- Au moment de l'enquête, soit entre trois et quatre semaines après la distribution, 91% des répondants déclaraient continuer d'utiliser la pommade maïa au sein de leur ménage.
- Les bénéficiaires utilisent très majoritairement ce produit **plus de quatre fois par semaine (94%)**, le reste des répondants l'utilisent de 01 à 04 fois par semaine.

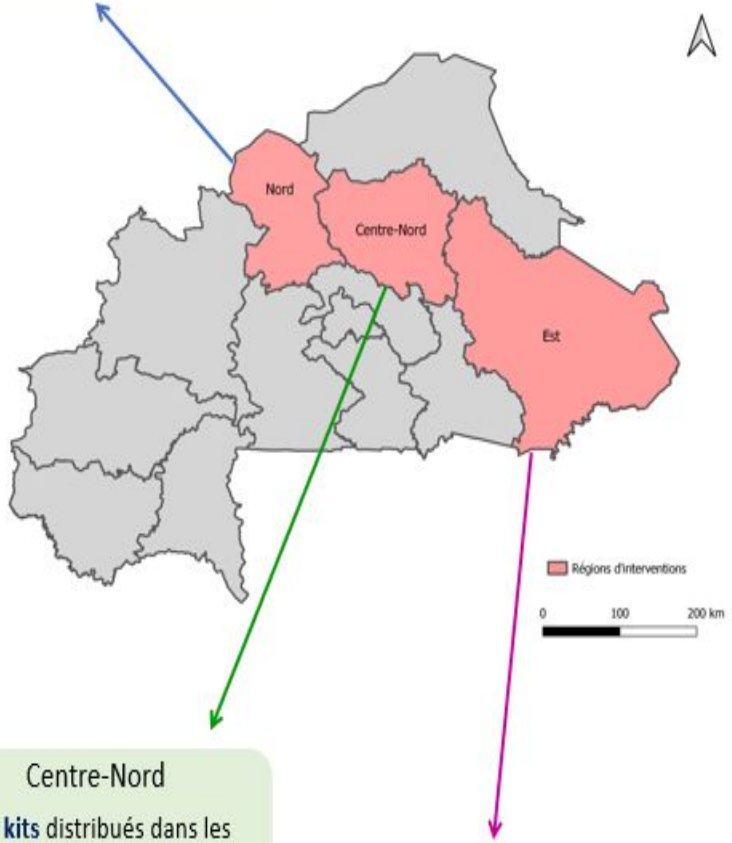


Les heures d'utilisation coïncident avec la tombée de la nuit soit l'heure où la transmission du paludisme par les moustiques est la plus probable. Des sensibilisations pour avancer l'heure d'utilisation de la pommade entre 17 heures et 18 heures pourraient être pertinentes.



67% des répondants déclarent utiliser la pommade pour l'ensemble des membres de la famille. 26% ne l'utilisent que pour les adultes et 7% exclusivement pour les enfants. Selon l'OMS au niveau global en 2019, 67% des décès liés au paludisme sont des enfants âgés de moins de 5 ans (cf *World malaria report 2020* p.17), des sensibilisations auprès des ménages devront être renforcées afin d'éviter que 26% des ménages ne l'utilise que pour les adultes.

Nord  
3172 kits distribués dans les Régions du Yatenga et du Loroum



Centre-Nord  
717 kits distribués dans les communes de Kaya, Foubé, Barsaogho, et Silmangué

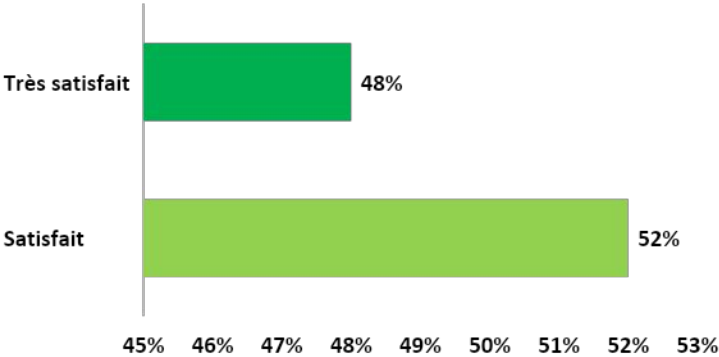
Est  
400 kits distribués dans les communes de Fada et de Namoungou

Desagrégation par zone d'intervention des **4289 kits** contenant la pommade anti-moustique MAÏA distribués entre juin et octobre 2021

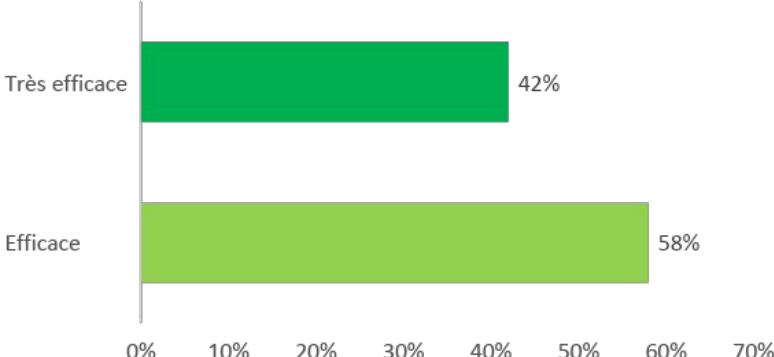
Soit **600 ml** de pommade par kits répondant aux besoins d'une famille de sept personnes pour 3 mois

# Rapport PDM d'ACF sur la distribution MAÏA

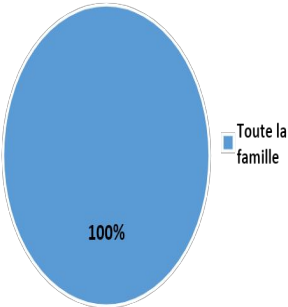
Satisfaction du produit



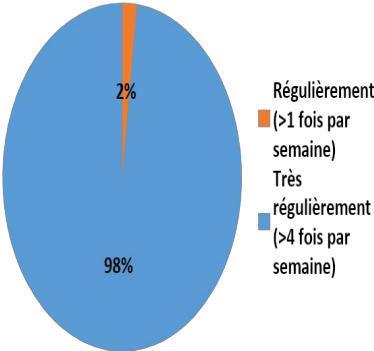
Estimation sur l'efficacité du produit



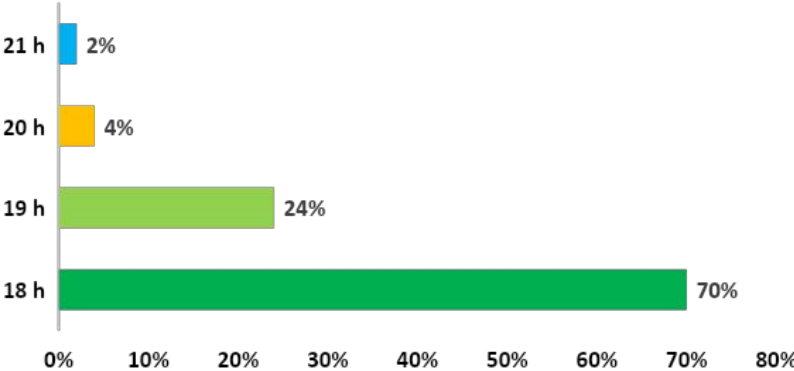
Utilisateurs



Fréquence d'utilisation



Heure d'usage du produit



# Gardons le contact

**Vos contacts :**

Franck Langevin

Gérard Niyondiko

**Par téléphone / whatsapp :** +226.64.93.32.88

+226.68.10.23.60

**Par mail :** [franck.langevin@maia-africa.com](mailto:franck.langevin@maia-africa.com)

[gerard.niyondiko@maia-africa.com](mailto:gerard.niyondiko@maia-africa.com)

**Par courrier :**

12

MAÏA Africa, La Fabrique, 12 BP 499 Ouagadougou

maïa<sup>®</sup>

**Merci**

# FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

## (Fiches réponse abris - FRA)

USAID-BHA Grant 2020-2022 / ECHO Grant 2021-2023

GLOBAL SHELTER CLUSTER



Décembre 2021

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BRICE DEGLA / Cluster Abris Burkina Faso

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# 1

# PRESENTATION



## PRESENTATION

## CRAterre

1. ONG créée en 1979 par des étudiants de l'Ecole d'Architecture de Grenoble, France (CRAterre) +
2. Laboratoire de recherche de l'Ecole d'Architecture de Grenoble (ENSAG), en France, depuis 1986 (Laboratoire CRAterre-Unité de recherche AE&CC)

**Objectif** : Reconnaître et faire reconnaître le **potentiel des cultures et pratiques de construction locales** pour répondre aux **défis liés à l'environnement, la diversité culturelle et la lutte contre la pauvreté**

**Equipe** : Environ 70 personnes de plus de 15 pays différents. Un groupe pluridisciplinaire : Architectes / Ingénieurs / Anthropologues / Archéologues...

**Projets** : 100 par an en moyenne dans un grand nombre de pays (environ 40 pays par an)

**Réseau** : Chaire Unesco : Réseau international avec 100 organisations partenaires + Plus de 300 anciens étudiants DSA (Diplôme post-master de Spécialisation en Architecture de Terre organisé par CRAterre) à travers le monde.



PRESENTATION

**CRAterre et CARE**  
**coordonnent le groupe de travail Self-recovery (Promoting Safer Building)**  
**du Global Shelter Cluster (GSC)**



<https://www.sheltercluster.org/working-group/promoting-safer-building>

## INTRODUCTION

**CRAterre a obtenu un financement USAID-BHA GRANT 2020-2022 & ECHO GRANT 2021-2023, géré par le GSC, pour la production de 7 Fiches de pratiques de construction locales en 2022-2023**

**Après un appel à manifestation d'intérêt du GSC, Le Cluster Abris du Burkina Faso a demandé à participer au processus et a été sélectionné pour la production d'une Fiche au premier tour (novembre 2021 - mai / juin 2022)**



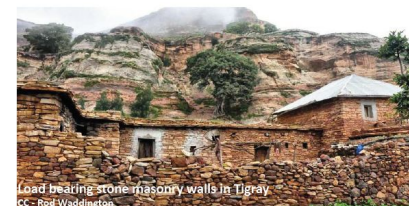
# 2

## PRATIQUES DE CONSTRUCTION LOCALES

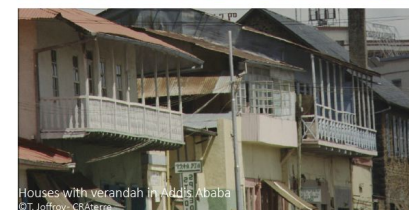
## PRATIQUES DE CONSTRUCTION LOCALES

### PRATIQUES DE CONSTRUCTION LOCALES

- **Dimension immatérielle d'une construction ou d'un établissement** produit par des êtres humains **pour vivre, travailler, prospérer, etc.**
- **Ensemble des pratiques de construction existantes** sur un territoire à un moment donné, **y compris l'architecture vernaculaire, mais aussi les pratiques récemment introduites.**
- **Coexistence de plusieurs pratiques de construction sur un même territoire.**
- **Connexion avec l'environnement.**
- **Genèse et évolution intimement liées à l'environnement et à l'histoire** spécifique de chaque territoire.
- Relation avec les **aspects sociaux, économiques et culturels.**
- Relation avec chaque phase du **cycle de vie du bâtiment : conception, construction, usage(s), entretien, remplacement, agrandissement, adaptation, etc.**



Load bearing stone masonry walls in Tigray  
CC- Rod Waddington



Houses with verandah in Addis Ababa  
© T. Joffroy, CRAterre



Traditional shacks, by wood, mud and stone



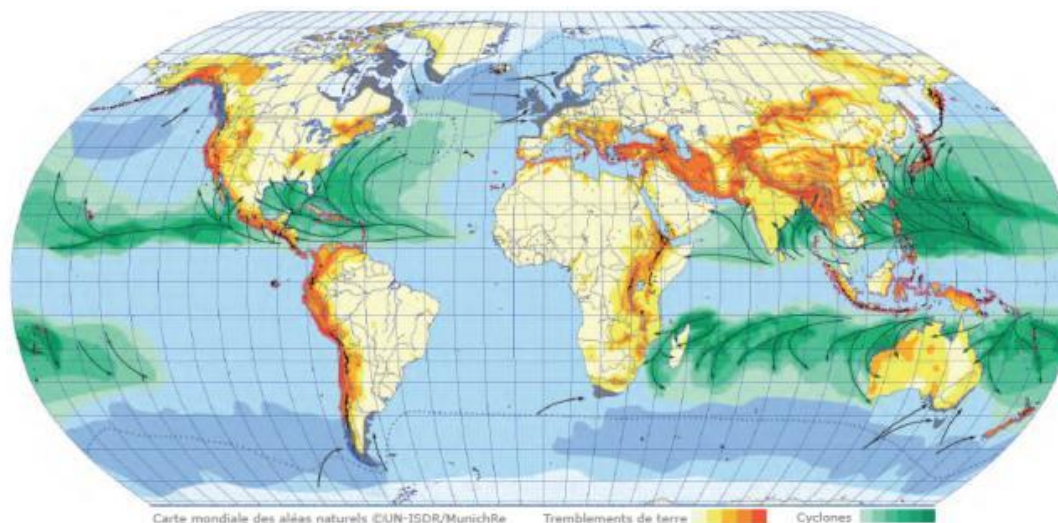
Condominiums under construction in Addis Ababa. © v. M

# POURQUOI LES PRATIQUES DE CONSTRUCTION LOCALES SONT PERTINENTES AUJOURD'HUI ?

## PRATIQUES DE CONSTRUCTION LOCALES POUR LA RESILIENCE ET LE DEVELOPPEMENT

### L'importance d'identifier les Cultures et Pratiques de construction locales :

- Environ 90 % de la population mondiale vit et travaille dans des bâtiments construits sans architecte/ingénieur -> **Comment pouvons-nous avoir un large impact sur les projets de développement ?**
- Après une catastrophe, seulement environ 10 à 20 % de la population reçoit de l'aide pour se reconstruire -> **Comment pouvons-nous avoir un impact positif sur les 80 à 90 % de la population qui se reconstruisent par eux-mêmes ?**



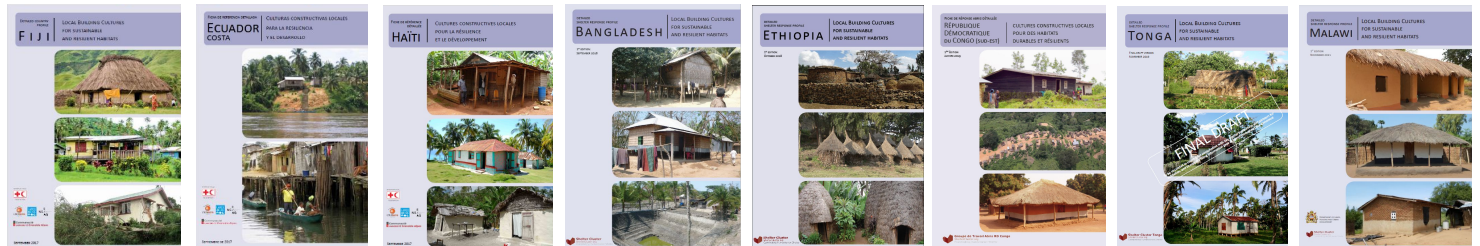
# 3

## APPRENDRE

APPRENDRE

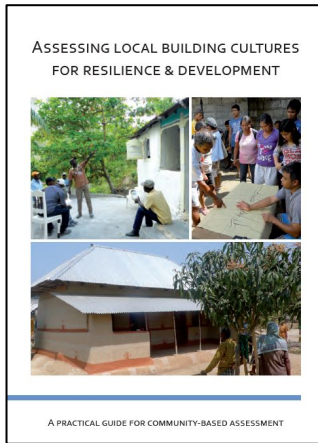
# COMMENT APPRENDRE DES PRATIQUES DE CONSTRUCTION LOCALES DE FAÇON ORGANISÉE ?

### 1. FICHES REPONSE ABRIS (FICHES DE PRATIQUES DE CONSTRUCTION LOCALES)



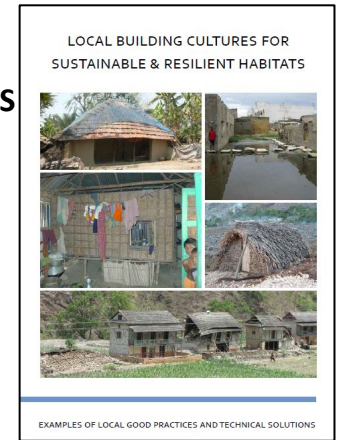
### 2. METHODES ET OUTILS POUR L'ANALYSE DE L'HABITAT LOCAL

<https://craterre.hypotheses.org/999>



### 3. CATALOGUES D'EXEMPLES DE BONNES PRATIQUES ET SOLUTIONS TECHNIQUES LOCALES

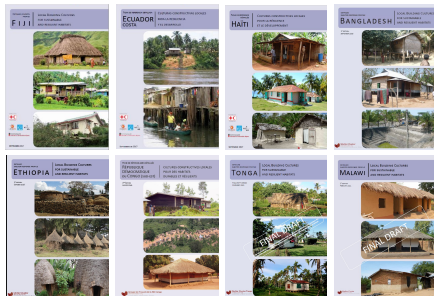
<https://craterre.hypotheses.org/1774>



# FICHES DE PRATIQUES DE CONSTRUCTION LOCALES (PCL): UN PANORAMA GÉNÉRAL DE L'HABITAT DANS UN PAYS OU TERRITOIRE PRÉCIS

## FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

### FICHES - PRATIQUES DE CONSTRUCTION LOCALES



- 7 Fiches détaillées finalisées
- 2 Fiches urgence finalisées
- 2 Rapports de Pratiques de construction locales
- 1 Fiches détaillée à finaliser (Tonga)
- 2 Fiches détaillées en cours (BHA Grant)
- 5 Fiches détaillées à produire en 2022 (ECHO Grant)



- **FIDJI** (An) -> <https://www.sheltercluster.org/promoting-safer-building-working-group/library/shelter-response-profiles>
- **EQUATEUR** (Es) -> <https://www.sheltercluster.org/promoting-safer-building-working-group/documents-0>
- **HAITI** (Fr) -> [https://www.sheltercluster.org/sites/default/files/docs/haiti\\_fiche\\_pays\\_cultures\\_constructives\\_locales\\_pour\\_la\\_resilience\\_et\\_le\\_developpement\\_20170920.pdf](https://www.sheltercluster.org/sites/default/files/docs/haiti_fiche_pays_cultures_constructives_locales_pour_la_resilience_et_le_developpement_20170920.pdf)
- **BANGLADESH** (An) -> <https://www.sheltercluster.org/promoting-safer-building-working-group/documents/bangladesh-local-building-PRACTICES-resilience-and>
- **ETHIOPIE** (An) -> <https://www.sheltercluster.org/ethiopia/documents/ethiopia-country-profile>
- **REPUBLIQUE DEMOCRATIQUE DU CONGO** (Fr) -> [https://www.sheltercluster.org/sites/default/files/docs/fiche\\_reponse\\_abris\\_rdc\\_sud-est\\_version\\_finale\\_hq\\_2019\\_01.pdf](https://www.sheltercluster.org/sites/default/files/docs/fiche_reponse_abris_rdc_sud-est_version_finale_hq_2019_01.pdf)
- **MALAWI** (An) -> <https://www.sheltercluster.org/sites/default/files/Shelter%20Response%20Profile%20Malawi%202021.pdf>



- **TONGA** (An) -> En cours
- **VENEZUELA** (Es) -> A produire en 2021-2022
- **YEMEN** (An + Ar?) -> A produire en 2021-2022
- **BURKINA FASO** (Fr) -> A produire en 2021-2022

→ 4 FICHES A PRODUIRE EN 2022

FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

Format : Document d'environ 40 pages en format A4

Public cible : Acteurs locaux, nationaux, internationaux, gouvernementaux, non gouvernementaux et de la société civile impliqués dans la prévention, la préparation et la réponse aux crises humanitaires dans le secteur du logement et des établissements humains.

Objectifs :

- Aide à reconnaître l'importance de comprendre un contexte avant de proposer une action ou un projet.
• Encourager la mise en place de réponses plus contextuelles dans le secteur d'abris et d'établissements humains (préparation, relèvement précoce ou phases ultérieures liées aux étapes de développement), qui favorisent une réduction de l'impact du changement climatique et qui promeuvent des stratégies d'auto-relèvement.
• Aider à prendre en compte le secteur de la construction existant, les ressources naturelles et humaines, les savoirs, solutions et bonnes pratiques locales, et les pratiques culturelles et sociales locales liées aux savoir-faire et techniques existants pour la RRC à différentes échelles (matériaux, systèmes constructifs, habitat, parcelle , organisme d'établissement).
• Donner un aperçu non exhaustif d'un pays ou d'un territoire : données démographiques, culturelles, sociales et économiques ; les aléas, les impacts environnementaux et le changement climatique ; impact des crises sur la population; secteur de la construction, etc., et ainsi aider à orienter les professionnels dans de nouveaux contextes.
• Devenir un outil de promotion des stratégies de promotion de l'auto-relèvement et de la résilience des communautés pour les membres du secteur/cluster du logement et des établissements humains et les autorités pour des actions plus localisées.



FOREWORD
A COUNTRY OF EXTREMES...
ADAPTED LOCAL BUILDING CULTURES
USE OF THIS SHEETER PROFILE
Ethiopia faces a proud history of habitation in a...
Ethiopia's high population of about 125 million makes it the second most populous nation in Africa after Nigeria...



# FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

## CONTENU INDICATIF (ceci varie en fonction de chaque fiche)

### PRÉAMBULE

#### 1. INTRODUCTION:

- 1.1. Pourquoi les pratiques de construction locales sont importantes aujourd'hui
- 1.2. Fiche : information, collecte et production de données
- 1.3. Articulation de la Fiche avec la stratégie du Cluster

#### 2. PROFIL DU PAYS :

- 2.1. Description générale
- 2.2. Principales données démographiques, culturelles, sociales et économiques
- 2.3. Risques, environnement et impacts du changement climatique
- 2.4. Personnes réfugiées, rapatriées et déplacées

#### 3. DESCRIPTION GÉNÉRALE DE L'HABITAT LOCAL :

- 3.1. Organisation des habitations / espaces publics
- 3.2. Aperçu du secteur du logement, de l'accès au foncier et de la RRC (liens vers des ressources)
- 3.3. Accès à l'eau, à l'assainissement et à d'autres services
- 3.4. Composition du ménage
- 3.5. Matériaux et techniques de construction
- 3.6. Construction : temporalité / compétences disponibles, etc.
- 3.7. Espaces et conditions d'utilisation des logements (rural/urbain)
- 3.8.-3.X. Résumé des types de logements abordables locaux (GÉNÉRAL OU PAR RÉGIONS / ZONES SI DONNÉES)

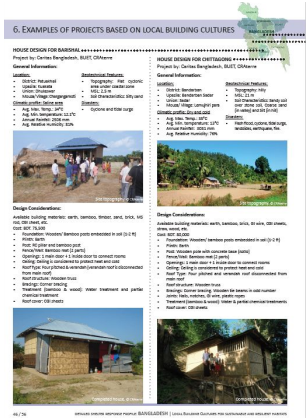
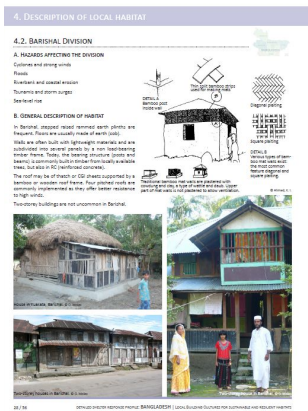
#### 4. ANALYSE DES PRATIQUES DE CONSTRUCTION LOCALES :

- 4.1. Pratiques résistantes aux risques
- 4.2. Pratiques et recommandations de construction améliorées
- 4.3. Durée de vie, entretien et adaptation
- 4.4. Confort, utilisation et esthétique
- 4.5. Relation entre logement et santé
- 4.6. Questions de genre
- 4.7. Conception bioclimatique et enjeux environnementaux
- 4.8. Des pratiques socioculturelles qui favorisent la résilience

#### 5. DES PROJETS BASÉS SUR L'ÉVOLUTION DES PRATIQUES LOCALES DE CONSTRUCTION

#### 6. RESSOURCES SUPPLÉMENTAIRES ET BIBLIOGRAPHIE

#### REMERCIEMENTS



FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

2. COUNTRY PROFILE

2.1. GENERAL DESCRIPTION

A. LOCATION



Ethiopia is a landlocked country that lies on the Horn of Africa. Bordering the country are Sudan and South Sudan to the West, Djibouti and Eritrea to the North, Somalia to the East and Kenya to the South.

B. PHYSICAL AND TOPOGRAPHICAL DATA

Area: 1,104,300 sq km. Land: 1 million sq km. Water: 104,300 sq km.

Elevation: mean elevation: 1,330 m. Lowest point: Danakil Depression-125 m. Highest point: Ras Dejen 4,550 m.

Relief: Within Ethiopia is a vast highland complex of mountains and dissected plateaus divided by the Great Rift Valley which runs Southwest to Northeast and is surrounded by lowlands, steppes, or semi-desert. This diversity determines variations in climate, soils, vegetation and settlement patterns.

The altitude range of the country is divided into three zones: daga for the midlands and kolla for the lowlands.

C. CLIMATE

There are 5 climatic zones, closely associated with the varied altitude levels throughout the country: Kolla (Tropical weather), Woyna Daga (Subtropical weather) and Daga (Cool weather). Banaho (Desertic) and Wozni (alpine) areas above 3,200m.

The Somali Region and the Danakil Depression in Afar have a hot, sunny and dry climate producing fully desert or semi-desert conditions. In the basins of the Sobat, the Teleze and the Abay rivers the conditions are tropical and diseases such as malaria are prevalent. Over the greater part of Ethiopia as the Amhara and Oromia highlands the climate is healthy and temperate. In the uplands, the air is cool in summer and bleak in winter. On the higher mountains the climate is Alpine.

Rainfall per year: In Afar and Somali regions rainfall ranges from 91 to 500 mm per year; while it is above 1,000 mm in the West of the country, with places reaching 2,500 mm.

D. PROTECTED AREAS AND WORLD HERITAGE SITES

The World Database of Protected Areas (link in page 11) cites 104 Protected areas in Ethiopia. Protected areas are important biodiversity hotspots, as well as being the source of livelihoods and natural resources used for housing for the local communities. There are 58 National Forest Priority Areas, 18 Controlled Hunting Area, 13 national parks, 8 wildlife reserves and 4 sanctuaries. Moreover, there are 2 UNESCO-MAB Biosphere Reserves (Yaya and Kafa) and 1 natural World Heritage Site (Simien National Park).

Ethiopia also has 8 cultural properties inscribed on the World Heritage List (link in page 11): Rock-Hewn Churches, Lalibela (1978); Fasil Ghebbi, Gondar Region (1979); Aksum (1980); Tye (1980); Lower Valley of the Awash (1980); Lower Valley of the Omo (1980); Harar Jugol, the Fortified Historic Town (2006) and Konso Cultural Landscape (2011).

E. ADMINISTRATIVE DATA

Ethiopia is a federal state subdivided into 9 ethno-linguistically based regional states (Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations, Nationalities and Peoples Region-SNNPR, Gambella and Harari) and 2 chartered cities (the country's capital Addis Ababa and Dire Dawa). Each state comprises zones, districts (*Woredas*), cities, and neighbourhood administrations (*Kebeles*). (See link in page 11 for more information)

Source: CIA World Factbook, IAD, World Bank, Climate portal, Wikipedia, Protected Planet



2.2. DEMOGRAPHIC, CULTURAL AND SOCIOECONOMIC DATA

A. DEMOGRAPHIC DATA

Total population: 105,350,020  
 Population density: 95.4 people/km<sup>2</sup>  
 Human Development Index (HDI): 0.463 (low)  
 Life expectancy: 62.6 years  
 Fertility rate: 4.99 children born/woman  
 Infant mortality rate: 49.6 deaths/1,000 live births  
 Median age: 17.9 years  
 Age structure:  
 0-14 years: 43.47%  
 15-24 years: 20.11%  
 25-54 years: 29.58%  
 55-64 years: 3.91%  
 65 years and over: 2.94%  
 Net migration rate: -0.2 migrant(s)/1,000 population  
 Urban population: 20.8%  
 Rural population: 79.2%  
 Urban population growth: 4.63% annual rate of change  
 Major urban areas:  
 Addis Ababa (capital city): 4,567,857  
 Dire Dawa: 1,274,869  
 Mekele: 480,217  
 Gondar: 358,257

B. LANGUAGES

Amharic (official national language): 29.3%  
 Oromo (official language in Oromia): 33.8%  
 Somali (official language in Somali): 6.2%  
 Tigrinya (official language in Tigray): 5.9%  
 Other languages: Sidamo 4%, Wolaytta 2.2%, Gurguz 2%, Afar 1.7%, Hadiyya 1.7%, Gamo 1.5%, Gedso 1.3%, Opuuo 1.2%, Kafa 1.1%, others 8.1%  
 English (major foreign language taught in schools) and Arabic.

C. ETHNIC GROUPS

Oromo 34.4%  
 Amhara 27%  
 Somali 6.2%  
 Tigray 6.1%  
 Sidamo 4%; Gurguz 2.5%; Welaita 2.3%; Hadiya 1.7%; Afar 1.7%; Gamo 1.5%; Gedes 1.3%; Site 1.3%; Kefficho 1.2%; other 8.8%.

D. RELIGION

Ethiopian Orthodox 43.5%  
 Muslim 33.9%  
 Protestant 18.5%  
 Traditional 2.7%  
 Catholic 0.7%  
 Other 0.9%

E. EDUCATION

Literacy rate: 49.1% (age 15 and over)  
 Youth (15-24 years) literacy rate: 2008-2012: Male: 63%. Female: 47%  
 Primary school participation. Net attendance ratio 2008-2012: Male: 64.3%. Female: 50.5%  
 Secondary school participation. Net attendance ratio 2008-2012: Male: 15.7%. Female: 15.6%

F. HEALTH

Physicians density: 0.03 physicians/1,000 population  
 Hospital bed density: 0.3 beds/1,000 population  
 HIV: 610,000 people living with HIV (0.58%)  
 Major infectious diseases:  
 Food or waterborne diseases: bacterial and protozoal diarrhea, hepatitis A and E, and typhoid fever.  
 Vectorborne diseases: dengue fever and malaria  
 Respiratory disease: meningococcal meningitis  
 Water contact disease: schistosomiasis  
 Animal contact disease: rabies

G. ECONOMY (2017 est.)

GDP (purchasing power parity): \$202.2 billion  
 GDP - real growth rate: 10.9% (annual average GDP growth of 10.3% a year from 2005/06 to 2015/16)  
 GDP - per capita: \$768  
 GDP - per capita (PPP): \$2,200  
 GDP - composition, by sector of origin: agriculture: 35.8%; industry: 22.2%; services: 42%  
 Labour force - by occupation (2013 est.): agriculture: 72.7%; industry: 7.4%; services: 19.9%  
 Child labour 5-17 years-old (2015): Children working in child labour: 42.7% (15,948,175)  
 Children working in permitted forms of work: 8.3% (3,096,516)  
 Childen non-working: 49% (18,288,047)  
 Population below poverty line: 29.6% (2014)  
 Inflation rate (consumer prices): 9.9%  
 Distribution of family income - Gini index: 33 (2011)  
 Other information: according to the CIA World Factbook, Ethiopia is a one-party state with a planned economy. For more than a decade Ethiopia has been one of the fastest growing states, driven by government investment in infrastructure and sustained progress in agriculture and in service sector.

Source: CIA World Factbook, World Bank, UNICEF, Info as AG, UNICEF, ILO, IEMC, ICA, World Atlas

Ethiopia has the lowest level of income-inequality in Africa and one of the lowest in the world. Yet, Ethiopia remains one of the poorest countries in the world, due to rapid population growth and a low starting base.

H. ACCESS TO INFORMATION

Telephones - fixed lines  
 Total subscriptions: 1,147,000  
 Subscriptions per 100 inhabitants: 1  
 Telephones - mobile cellular  
 Total subscriptions: 51,224,000  
 Subscriptions per 100 inhabitants: 49  
 Mobile phones are popular in Ethiopia, and in 2010, the Ethiopian government formed Ethio Telecom, the only phone, internet and mobile phone service provider (<http://www.ethiotelecom.et>).  
 At the time of writing, the mobile phone network did not cover the entire country, so it is still necessary to use Satellite phones in the more remote areas.  
 Radio and television access  
 Radio is the most important source of news and information in Ethiopia. 4/5 Ethiopians use radio as a source of information.  
 Television in Ethiopia caters mainly for urban audiences. It is the most important source of news and information in the country after radio.  
 Internet users  
 Total: 15,731,741  
 Percent of population: 15.4%

TO FIND OUT MORE

On sections 2.1. and 2.2.

CIA WORLD FACTBOOK  
<http://www.cia.gov/library/publications/the-world-factbook/docs/6066.html>

FAO  
<http://www.fao.org/countryprofiles/index/en/?iso3=ET>

WORLD BANK  
<http://www.worldbank.org/en/country/ethiopia>

WORLD DATABASE OF PROTECTED AREAS  
<http://protectedplanet.net/country/ET>

UNESCO WORLD HERITAGE SITES  
<https://whc.unesco.org/en/states-parties/et/>

REGIONS OF ETHIOPIA  
[http://www.worldstatesmen.org/Ethiopia\\_Regions.html](http://www.worldstatesmen.org/Ethiopia_Regions.html)

FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

4. DESCRIPTION OF LOCAL HABITAT

4.1. LOCAL HABITAT: GENERAL DESCRIPTION

A. LOCAL AFFORDABLE OR SELF-BUILT HOUSING

VERACULAR HOUSING

Regarding the form, all around the country, round houses (tukul) with walls built in different materials and thatch roofs are very common. Rectilinear houses are less common, but they are gradually replacing round houses in order to make it easier the use of CGI sheets for roofing. Round houses with thatch roofs are known in the north of the country as sarber (grass hut), while rectilinear houses with CGI sheets roofs are known as corcorober (corrugated hut).

Veracular housing in Ethiopia can be shallowly classified into four categories depending on wall types:

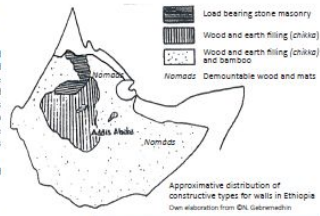
Timber structure with earth and fibres filling (chikka)

Chikka houses are very common throughout the country (72% of houses had their walls in chikka in 1984). Their structure is built with wood poles of eucalyptus or other available timber measuring about 8 cm large. Wood is split in half if the diameter is too large. Eucalyptus, which is easily attacked by termites, is smoked and/or soaked in burnt oil. The poles are set vertically about 30 to 40 cm deep into the ground or on a stone or cement foundation. Foundations are then filled with stones and sometimes lime mortar up to 35 cm above the natural terrain. These main poles are then tied in place and diagonally braced when necessary. Wood elements with smaller diameters (about 5cm) are planted in the basement or on the ground and go up to the roof. They are braced by horizontal elements, the assembly being ensured by strings and/or barks of eucalyptus. Thinner eucalyptus elements (zapha) are attached to this structure to accommodate the chikka mixture, close enough to prevent excessive shrinkage of the chikka during drying.

The roof (thatch or CGI sheets) is put before applying the chikka mortars. Then, a mixture of earth, straw (usually teff straw, a common cereal in Ethiopian highlands) and water is used as a filling for the wood structure. It is also used for plastering. The mixture is left to ferment between 3 days and 2 months for better adherence quality. It is stored every 2-3 days for homogenization. Then the mortar is projected with force on the wood structure, so that it hangs well. Once dry, an extra layer can be applied. The layers on the inner side of the construction are made before those on the outer side. One or two layers are applied in the inner part and two or three in the outer side. The amount of straw in the mixture increases in the final layers. The last layer is usually give a smooth finish. The walls can get to be protected by a relatively thick earth coating (15 to 20 mm). The final layer can then be coated or not (with lime or cement mortar) with an improvement of the hanging through stones embedded in the layers of chikka. To prevent cracking around wooden doors and windows, they are only fixed once the first layer of chikka is dry.

Houses in the highlands have thick chikka walls in order to get better inertia and control of humidity and so a better temperature inside the houses in this temperate region. On the contrary, these houses have less and less mortar in the walls in the lower tropical climate areas, and they permit ventilation and better comfort inside the houses. In some areas, almost no chikka is applied to the wooden structure and the walls are almost only made of wood.

Source: MULLIS-MARAM (1998), GONGHS (2015), DAVID & BLOD (2015), KATI (n. d.), MOSES (2015), UNHCR/HTF (2015), WISDOM/MAI (n.d.), Central Statistical Agency (CSA) Ethiopia, staffed.worldpress, vosses/fytush, vng, UNHCR/HTF (2015), MATIAS & KISIANI (1998)



Approximative distribution of constructive types for walls in Ethiopia (Own elaboration from GSI, Gebremichael)



Oromo chikka tukul near Langano lake (Oromia). © Newa



Chikka house in Gedo Zone (SNNPR). © ShelterNet



Decorated chikka house in the South Omo Zone (SNNPR). © W. Wilbert

Chikka houses are usually round houses (tukul) covered with thatch, but more and more metal roofs are used and houses are becoming rectangular. Corrugated iron is growing as a roofing material as the price of thatching grass rises and skilled thatchers become harder to find. The roofs usually have an overhang to protect the walls. CGI sheets and straw are sometimes combined in the roof to have a better comfort.

Thatched roofs have the disadvantage of being flammable, but they also allow to cook inside the house without a chimney, as smoke can pass through the thatched roof. At the same time, smoke can treat the thatch against insect attacks.

These two typologies are built with the limited building materials and construction skills available in the rural areas. These constructions require regular maintenance. Thermal comfort is very recognized and appreciated.



Stone tukul in Laibeta in Amhara region. © Newa

Load bearing stone masonry walls with earthen mortar

This is found specially in Tigray and Amhara regions, but also in cities like Harar or Dire-Dawa.

In these regions, stone is an abundant resource. Houses are usually square or round and stone built. There are one single level square or round houses, and also two levels rounded houses.

Basalt is used for foundations. Walls are built with stones (gray trachyte). In square houses large stones well carved are placed at the corners with a filling of smaller stones for the rest of the walls. Mortar is made of earth and straw (chikka mortar). The collection of stones can last nearly 3 years, then the construction of the house typically takes 4 to 6 months. Openings and frames are in wood. Stone balconies can be found on the 1st floor, which protects the wall of the 1st level from the rain (chikka mortar).

The wooden posts supporting the roof are positioned all around the house, with no particular symmetry according to their height and section.

Flat roofs of wood covered with sods of earth and wide overhanging eaves are common, but also thatch roofs can be found. Recent houses often have CGI roofs (corcor) with gable ends as thatching grass becomes scarcer. Ceilings are usually very decorated. The interior walls are often plastered with a mix of earth, straw and cow dung.



Houses with stone masonry walls in Tigray. © Bernard Diagne

Bamboo and thatch walls

This technique is found in SNNP Region, especially in Dorze and Sidama peoples.

The structure is built with split bamboos sunk into the ground every 10 cm or so following a circle or oval form. The series of vertical bamboos are connected to each other, forming circles or ovals that have a diameter which diminishes as one goes up. The bamboo structure is then covered with bamboo leaves (sometimes also with grass and anopse leaves). Small openings at mid-height are usual to leave the smoke out.

Dorze houses do not have central pole, while Sidama houses do have one and have a bigger surface



Bamboo and thatch house (Dorze people-SNNPR). © David Starkey

Wood and mats huts from nomads

These houses are used by the nomads in Afar and Somali regions. They are erected, dismantled and loaded on to the camels by the women. Huts are owned by women. Men usually gather the materials to build the huts.

Both types are made of an armature of boughs bound with palm fibre and covered with mats. Each group of huts is usually surrounded by a hedge or wall to protect the animals from enemies. The Somali hut is called the qoq. In some cases, there is an outer uncovered verandah.



Aftar huts (Afar region). © L. Jeffrey-Okumu

FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

4. DESCRIPTION OF LOCAL HABITAT

4.8. HARARI

A. HAZARDS AFFECTING THE REGION

Drought / Earthquakes / Conflicts

B. GENERAL DESCRIPTION OF HABITAT

The ancient city of Harar, founded in the 13th Century is also a UNESCO World Heritage Site. As a historical trading centre, many buildings are quite unique to Ethiopia, with Indian and Islamic architectural details being quite noticeable within the fortified walls at the centre of the city. In the surroundings of the city, some rural territory makes also part of the current Harari region.

Two kinds of houses are found in vernacular architecture in Harar: *chikka* houses and stone flat-roofed houses (in the historic city centre). The latter are less usual in Ethiopia, being a reminiscence of the coastal Arab architecture. Men build both kinds of houses and repair wall and roofs when necessary. Women are in charge of the day to day maintenance.

Besides these two types of constructions, increasing numbers of concrete buildings are being constructed in the city, raising concerns that this may change the look of the city beyond recognition.

Stone and flat-roofed houses

The ancient city (*Jugo*) is very dense in terms of buildings and population, with narrow streets, dead ends and stone-built courtyards isolated from the public space by high walls.

In this part of the city, the predominant kind of house is called *gager*. These buildings are rectangular, built of stone masonry walls and flat-roofed. They are often two-storied and are surrounded by an about 2 m high wall. They have a white-washed or pastel colour exterior which is painted twice a year. Flat roofs are made with wooden planks and covered with earth and dry grass. More and more houses have CGI sheet roofs even in the city centre.

The interior of the houses has different rooms, one of which is used to receive guests. Raised platforms in different levels determine the status of the guests. The walls are painted with ochre or red earth and covered with cotton cloths or carpets and decorated with handicrafts. Several niches in the walls contain ceramics. Many houses have balconies.

Chikka houses

*Chikka* (wattle and daub) round houses with a thatch roof are very common in the outskirts of the city and in the countryside of the Harar region. They have a central pillar to support the conical roof. There are also more and more rectangular houses with *chikka* walls and CGI sheet roofs.

Within the city, these houses lay in neighborhoods where streets and houses are made of earth and houses are grouped together in compounds protected by vegetal fences.



Market at Asmaddin gate. CC-Ahron de Lencastre



Market of Harar. CC-Ahron de Lencastre



Balconies in the city centre. CC-Ahron de Lencastre



View of Harar and its countryside. CC-Ahron de Lencastre



Street of Harar with balconies. CC-Ahron de Lencastre

4.9. OROMIA

A. HAZARDS AFFECTING THE REGION

Drought / Earthquakes / Floods and landslides / Black cotton soils / Conflicts

B. GENERAL DESCRIPTION OF HABITAT

The Oromo people are the largest ethnic group in Ethiopia and are mainly concentrated in the Oromia region, which is the largest of the country. Oromo people are very diverse: Barentu and Borana are the major groups, and are subdivided into subgroups. Nevertheless, some general housing features prevail among these different groups.

Circular *chikka* houses

The main house of the family is surrounded by other houses and often by thatch roofed granaries. In some rural areas, the different constructions of a homestead are surrounded by fences, (e.g. a living euphorbia in the Oromo from Jimma or acacia thorn fence in the Borana Macha Oromo).

Houses are circular, with (e.g. Macha Oromo) or without a verandah (e.g. Oromo in Borana Zone). Walls are usually built of *chikka* by the owners. There are frequently no windows, only doors. A space of 20 cm is often left unplastered above the doors to facilitate ventilation and evacuation of smoke. Cow-dung is used for floors and walls along with earth and fibre.

In some groups, once the walls are finished, neighbours are called for the construction of the roof structure. Junipers, eucalyptus and *sacias* are easily found in the region. The best plant for thatching is the *sambaiat*, but many others are used depending on the zone. Thatching is sometimes completed by an expert, mainly in areas with heavy rain. The roof edge is placed firstly and bouquets of herbs are hung with ropes on the wooden frame towards the top of the roof. This part may be protected by a decorated pot of clay placed upside down, the *gullit*, or by an ostrich egg. Roofs usually have large overhangs in the rainy zones.

The interior of the house has sometimes partitions with the sleeping platforms and kitchen being separated. The fireplace is generally placed in the central part. Storage is done inside the houses.

Some Oromo grow vegetables and spices in a garden surrounding the house. Some groups as the Macha Oromo move the enclosure of cattle from time to time to permit better distribution of fertiliser on the land.

Rectangular *chikka* houses

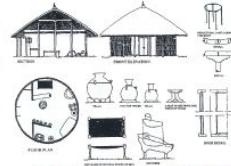
Rectangular houses or constructions also exist in the Oromo culture. Traditionally, in zones with little rain, *chikka* constructions with flat earthen roofs were built. Today, many *chikka* houses are being built with rectangular form and a CGI sheet roofs.

"Bird's nest" houses and nomadic houses

Some groups (e.g. Barentu Kareyu Oromo or Borana near Yabelo) build round or elliptic houses whose rafters are planted in the ground forming both the walls and the roof (as a bird's nest).



Square house with flat earthen roof (left), round *chikka* house (centre) and granaries (right) near Langano Lake (Ari Zone). CC-Nevs



Floor plan, section, elevation and details of an Oromo house. © N. Selawelwa



Oromo dwelling. © Bernard Gagnier



Oromo dwelling in Sof Omer (Bale Zone). CC-Neil Westergaard



Construction of a Borana 'bird's nest' house. CC-National Museum of World Cultures



Square house with flat earthen roof (left), round *chikka* house (centre) and granaries (right) near Langano Lake (Ari Zone). CC-Nevs

# FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

## 5. LEARNING FROM LOCAL HABITAT

### 5.4. GREEN DESIGN, COMFORT AND HEALTH FEATURES AND BEAUTY



[ALL ETHIOPIA]

- Ceilings appear in some zones of the country (e.g. made from reed mats or made of bamboo). They have two main advantages: one is aesthetic, and the second is to improve comfort by insulating against the heat and the cold.
- The open weave screens of the bamboo, wood or fibre mats allow adequate ventilation in the interior of the buildings in the hot humid parts of the country.
- Thatch is a good material for roofing, as apart from protecting from rain it offers great insulation, good ventilation. Also, it is a traditional craft: whereas CGI sheeting is imported and expensive to replace when needed. Nonetheless, CGI sheeting is valuable and can become useful if the householder needs to raise funds as these sheets can be sold (e.g. in a moment of crisis). However, in conflict situations, the CGI sheets can be easily stolen and sold.
- Many houses with thatched roofs do not have a chimney. Smoke can pass through thatched roofs offering some level of treatment of the thatch against insect attacks and suppress sparks, due to lack of oxygen.
- Houses are richly decorated in different zones of Ethiopia. Interior decorated ceilings appear in the north of the country, while exterior mural paintings appear in the south and west.
- In many cultures (e.g. Welayta, Sidamo, Gurage in SNNPR, Nuer in Gambela, Anzari, etc.), cattle are brought into partitioned areas in the house at night, so as to keep them secure from predators and thieves, whilst also providing welcome warmth for the household.

[AMHARA]

- Two storey stone houses are built in the mountains, where nights are cold. The cows heat the air so the hot air rises, passing through the wooden floor of the upper floor. This is a biomass heating system.
- The community of Awra Amba, near Bahir Dar is using energy efficient stoves, made of chikko. It saves wood, provides healthier conditions (thanks to the chimney) and contributes to keep the house warm.

[SOUTHERN NATIONS, NATIONALITIES AND PEOPLES REGION]

- In the Alaba house, the top of the wall under the roof is left without plaster for 40-50 cm. This provides ventilation in the house, making it fresher.
- In the Alaba culture (SNNPR), decoration appears in a three-dimensional way through earthen plasters in the exterior walls of the buildings. These bas-reliefs represent symbolic aspects of the Alaba culture.
- In the Konso houses the smoke helps preserving meats as there is no chimney.



Interior ventilated space in a Dumuz house made of bamboo structure without chikko mortar and with a thatched roof. © A. Gonzalez-Rubio et al.



Ventilation is made possible thanks to the absence of plaster in the upper part of the walls in the Alaba Houses. (SNNPR). © Laurence Fontana



Energy efficient stove made of chikko in the village of Awra Amba (Amhara). It improves the quality of the air inside the house. © Laurence Fontana



Decorated house, South Omo Zone (SNNPR). © Ivo Weissert



Decorated house in Gambela. © Mawu Mohammed-IGM



Bamboo ceiling near Bult (Amhara). Ceilings improve the house's comfort. © Ivo Weissert

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DETAILED SHELTER RESPONSE PROFILE: ETHIOPIA | LOCAL BUILDING CULTURES FOR SUSTAINABLE AND RESILIENT HABITATS



- The use of CGI sheets causes discomfort for inhabitants and may induce health issues. When a shiny CGI sheet is installed, it reflects some solar radiation, but heats up and radiates the heat inside the house. When CGI sheets rust, they become darker in colour and consequently reflect less radiation. Thus, the interior of buildings become hotter as the CGI sheets rust.
- Apart from their thermal disadvantage, CGI sheet roofs are noisy during rainy periods. Though, false ceilings reduce the noise and create thermal buffer zones.
- The floor may suffer from rising humidity.
- Thatch, bamboo or timber need to be treated against insects.
- Exposure to smoke inside the home, either from cooking with solid fuels or smoking tobacco, has potential harmful health effects and is often blamed for upper respiratory tract infections. Ninety-three percent of households in Ethiopia use some type of solid fuel for cooking, with virtually all of these households using wood. Exposure to cooking smoke is greater when cooking takes place inside the house rather than in a separate building or outdoors. In Ethiopia, cooking is done in a separate building in 47% of households, a figure that has increased since 2011 (36%).
- In urban areas, liquid propane gas (LPG) is generally used for cooking. Nevertheless, Ethiopian households will still burn charcoal and incense indoors for hosting of the traditional coffee ceremony during which the green beans are roasted in an open pan over a traditional clay built charcoal cooking fire grill. Such a pan is also used for cooking meat for roasted 'iba', one of the traditional Ethiopian foods consisting of lamb pieces cooked on the grill.



Smoke is kept inside the houses in many zones of Ethiopia. Cooking is also usually an indoor activity, what can cause health problems. (South Omo Zone, SNNPR). © Ivo Weissert

### 5.5. SOCIOCULTURAL PRACTICES FOSTERING RESILIENCE

[ALL ETHIOPIA]

- Traditional spaces of conviviality are important for establishing and maintaining community links. These public places appear in several cultures such as the Konso (SNNPR). The term *mooro*, in the local language, indicates a well-defined typology of public space and, for each village there are many of them, from ten to twenty, with different functions, shapes and attributes. It's the place of social and spiritual life, where children play, youngsters sleep and spend their time, the elders meet and discuss, women pass and can participate in some of the happenings. (Capurro et al., 2011).
- Economically, most of the materials necessary to produce vernacular habitats are taken directly from the local environment, and the money invested in these technical solutions is directly injected into the local economy.
- Environmentally, vernacular habitats involve the use of renewable materials, provided that adequate programmes to manage wood resources are in place.
- CGI sheets have the advantage of not being heavy, and thus, to require lighter supporting structures. This can help save wood.
- It is not uncommon to make "investments" by purchasing CGI sheets (in small quantities), which can later be used to the cover a house that will be built in the future, or, if necessary, be resold in case funds are needed. Nevertheless, the sums invested in such a way have very little impact in local economies (dearer profit margins, some transportation and implementation).
- The increased cost of the metal roofing compared to thatch roofing is usually offset by its benefits to rural inhabitants. These sheets are commonly collected and used as covering material or as capital to be resold in case of need (informal rural banking).
- Immediately after a disaster affected households depend on bonding networks (relationships with immediate family members and relatives) and bridging networks (relationships with neighbours and friends) to cope with crises. Neighbours and relatives can play an important role during times of crisis. They are providers of food, clothes, and money. Moreover, they often are a source of emotional support, which is very important in bad times.
- Before heavy rains and floods, people store seeds and crops into dry place.



Public covered space in a Konso village (SNNPR) called mooro. These traditional places are very important for conviviality and are common throughout the country. © Ivo Weissert

DETAILED SHELTER RESPONSE PROFILE: ETHIOPIA | LOCAL BUILDING CULTURES FOR SUSTAINABLE AND RESILIENT HABITATS

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FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

6. PROJECTS BASED ON THE EVOLUTION OF LOCAL BUILDING CULTURES



TRANSITIONAL SHELTERS FOR SOUTH SUDANESE REFUGEES IN GAMBELA

Project by: IOM, Administration for Refugees and Returnees Affairs (ARRA), United Nations Higher Commissioner for refugees (UNHCR).

Contextual information:

- Location:**
- Region: Gambela
  - Zone: Anuak
  - Woreda: Itang special woreda
  - Kebele: Pulkot Tharpan sub kebele
  - Town: Terjam
- Geographic information:**
- Topography: mainly plain but hilly for the specific refugee camp
  - Altitude: 450 m
- Main ethnic groups:** Nuer and Anuak
- Climatic profile:**
- Description: The climate is tropical. The summers are much rainier than the winters. The average annual temperature °C.
- Average temp.: 27.4 °C
  - Avg. Max. temp.: 29.7 °C
  - Avg. Min. temp.: 19 °C
  - Average rainfall: 933 mm

Project principles and scope:

The Gambela region is located in the Western of Ethiopia and next to the border with South Sudan. After the conflict erupted in South Sudan in December 2013 and caused massive displacement both internally and into neighboring countries. The region received the largest number of refugees fleeing the conflict in the eastern parts of South Sudan. Several number of camps were set up to receive a high influx of people seeking Protection and adequate shelter, along with access to food, water and basic services. The country lead actors are the Administration for Refugees and Returnees Affairs (ARRA) and the United Nations Higher Commissioner for refugees (UNHCR). IOM as one of the partners in the implementation of transitional shelters and refugee transportation from the border to the camps, has been active in the region since 2011. The project had reached about 6,847 refugee households from the year 2012 to 2017 in the region. IOM also expands its shelter programming towards host community assistance in order to avoid any tensions between refugees and host community. In 2017, IOM has reached about 214 households in three different refugee camp neighboring kebeles through construction of shelters.



Transitional shelter for South Sudanese refugees. © Mikea Mohammed - IOM

Design Considerations:

**Design:** the main actors have an engagement to the provision of transitional shelter to South Sudanese refugees. The decision was to provide it with harmonized houses based on vernacular designs. The design was adopted through the Shelter Working Group (SWG) with the inclusion of the Refugee Committee Council (RCC) which considered of the cultural and environmental acceptability. The transitional shelter project promotes beneficiary's engagement towards the construction through cash for work that became more essential and involves active participation of refugee beneficiaries through mud plastering and thatching of their own homes thus increasing ownership of the process. The project is also a way to creating job opportunities through carpentry trainings to refugees as well as host communities. **Cost:** able bodies - between 333 USD and 366 USD for the vulnerable households.

Materials:

- Foundation: eucalyptus poles 10 cm diameter sunk to a minimum of 60 cm depth and stabilized with rubble stone and earth filling.
- Plinth: wall compacted earth floor to an effective height of 150 mm above ground level
- Central post: eucalyptus pole
- Walls: ochilo walls (wood and earth and straw plasterings).
- Openings: Wood frame + CGI sheet door
- Roof Type: Four pitched thatched roof
- Roof structure: wood.
- Bracings: Eucalyptus poles thickness of 8 cm diameters for rafters and the beam, 6 cm diameters for wall pass
- Treatment (wood): eucalyptus poles are treated
- Roof cover: thatch, grass thatching



Active participation of beneficiaries through mud plastering and thatching. © Mikea Mohammed - IOM

Examples that illustrate the reinterpretation and valorisation of traditional architectural features in low-cost housing to reduce their vulnerability to local hazards

SUSTAINABLE RURAL DWELLING UNIT (SRDU)

Project by: Ethiopian Institute of Architecture, Building construction and City development (EIAOC); Arthur Waser Foundation of Switzerland and ETH-Zurich North-South Centre

Source: YITBAREK ALEMAREHU (2011), YITBAREK ALEMAREHU (2012) KELLET & YITBAREK ALEMAREHU (2013), SEWNET (2015)

Contextual information:

- Location:**
- Region: SNNPR
  - Zone: Gurgu
  - Woreda: Welkite
  - Town: Gubre
- Geographic information:**
- Topography: hilly
  - Altitude: 2 044 m
- Main ethnic group:** Gurgu

- Climatic profile:**
- Warm and temperate. Rainy summers and dry winters.
- Average temp.: 18.5 °C
  - Avg. Max. temp.: 27.9 °C
  - Avg. Min. temp.: 9.1 °C
  - Average rainfall: 1,221 mm.

Project principles and scope:

Draw lessons from the vernacular architecture of a rural area (Gurgu). Implementation of housing types including the advantages of the traditional Gurgu house and improving the aspects worth evolving, while maintaining the Gurgu identity. Capacity building through hands-on training on a one-to-one construction of housing units. Phase-1: documentation and study of the existing vernacular architecture and local building materials. Phase-2: construction of a single proto-typology (SRDU) including the use of renewable energy. Phase-3: replication.

Design Considerations:

**Design:** SRDU I prototype is a house with dimensions of 7.51 m per 7.51 m each side and a height of 8.69 m. Ground floor with living room, kitchen and an independent barn. Mezzanine including two rooms. The house is square instead of the traditional round ones. It also has openings apart from the main door. WC and storage spaces are accessible from the exterior. SRDU II has a round plan, like the vernacular Gurgu constructions. **Cost:** between 600 birr/m<sup>2</sup> (21.5 USD) if built by a local resident and 2,000 birr/m<sup>2</sup> (71.6 USD) if built by an outsider.

Materials (SRDU I):

- Foundation: stone gravel
- Plinth: stone gravel
- Central post: wooden pole
- Walls: sun-dried earth and straw blocks (adobe).
- Openings: Wood. SRDU I: 1 main door + 2 back doors + 2 windows in the ground floor. 4 horizontal windows in the upper floor.
- Mezzanine floor: light weight earth fill graded on a adobe block vault
- Roof Type: Four pitched thatched roof
- Roof structure: umbrella type structure
- Bracings: bamboo studs which connect the foundation with the wall
- Treatment (bamboo & wood): ?
- Roof cover: bamboo leaves



A Gurgu village near Gubre. © SRDU documentation team



SRDU I prototype. © Yitbarek Alemarehu



SRDU II prototype. © SRDU documentation team



Interior of SRDU I prototype. © Mukigeta Getachew

## FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

### ETAPES DE PRODUCTION DU DOCUMENT

-> Délai maximum : jusqu'à mai-juin 2022

1. **Collecte et lecture de documents / Collecte d'images, de dessins, etc.** : documents et rapports existants / recherche bibliographique / collecte d'images
2. **Possibilité d'organiser des visites sur le terrain** (avec des fonds propres des partenaires du cluster) pour la collecte d'informations.
3. **Travail collaboratif sur Google drive:**
  - Création d'un **dossier partagé** pour enregistrer des documents / images...  
[https://drive.google.com/drive/folders/1Par59Qr9Jbs65n1\\_EQKZxAxst3\\_0sjU9?usp=sharing](https://drive.google.com/drive/folders/1Par59Qr9Jbs65n1_EQKZxAxst3_0sjU9?usp=sharing)
  - **Document collaboratif sur Google docs** : Version collaborative pour la phase intermédiaire. Tous les acteurs impliqués peuvent facilement apporter leur contribution en citant les sources si l'information est tirée d'un document. Les images peuvent également être incluses dans des endroits spécifiques en spécifiant les données de l'image et la paternité. Ce document sera hébergé dans le dossier partagé.
4. **Premier atelier pour la présentation des résultats provisoires et l'organisation du travail restant.**
5. **Travail de CRAterre en version Indesign, exporté en pdf et word pour révision finale.**
6. **Révision scientifique par CRAterre et Laboratoire CRAterre AE&CC.**
7. **Révision finale par le Cluster Abris Burkina Faso.**
8. **Atelier final pour l'intégration des dernières modifications et la validation de la publication.**
9. **Publication et diffusion** : document distribué en version pdf / version éditable partagée avec les partenaires / impression de copies en fonction de la disponibilité des fonds dans le cluster local / publication sur GSC / CRAterre / Laboratoire CRAterre AE&CC / partenaires du Cluster Burkina Faso / web de prévention, Reliefweb, etc.

## FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

### TACHES

CRAterre	Groupe focal Cluster Burkina	D'autres acteurs Cluster Burkina
<ul style="list-style-type: none"> <li>• <b>Responsabilité de la production</b> de la Fiche ;</li> <li>• <b>Coordination de la production et proposition des étapes</b> de production de la Fiche ;</li> <li>• <b>Recherche documentaire et lecture de documents</b> dans les bibliothèques universitaires et spécialisées ;</li> <li>• Organisation des <b>informations dans la trame provisoire</b> ;</li> <li>• <b>Organisation et animation des ateliers</b> intermédiaire et final ;</li> <li>• <b>Révision scientifique du document</b> (en collaboration avec le laboratoire de recherche CRAterre - AE&amp;CC de l'Université de Grenoble) ;</li> <li>• <b>Recherche des informations manquantes</b> ;</li> <li>• <b>Finalisation</b> de la fiche au <b>format Indesign</b> ;</li> <li>• <b>Suivi et évaluation du processus</b> ;</li> <li>• <b>Diffusion</b> de la publication.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Expression d'intérêt</b> ;</li> <li>• <b>Coresponsabilité de la production</b> de la Fiche ;</li> <li>• <b>Mobilisation des acteurs</b> locaux ;</li> <li>• <b>Collecte d'informations</b> (documents pertinents, images, etc.) ;</li> <li>• Organisation des <b>informations dans le modèle provisoire</b> ;</li> <li>• <b>Provision d'information, révision et validation</b> du document tout au long du processus ;</li> <li>• Soutien à <b>l'organisation et l'animation des ateliers</b> intermédiaires et finaux ;</li> <li>• <b>Gestion d'une petite somme pour soutenir le processus</b> (environ 600 €), qui peut être utilisée pour les ateliers ;</li> <li>• Révision et <b>recherche des informations manquantes</b> ;</li> <li>• <b>Suivi et évaluation</b> du processus ;</li> <li>• <b>Diffusion</b> de la publication ;</li> <li>• Prise de décision sur la <b>stratégie de cluster</b> intégrant les pratiques de construction locales.</li> </ul>	<p><b>Contribution volontaire</b> à la production d'une fiche d'information qui fournira des informations pour le bien du secteur humanitaire dans le pays et de la population cible :</p> <ul style="list-style-type: none"> <li>• <b>Provision d'informations</b> (documents pertinents, images, etc.) ;</li> <li>• Si souhaité, <b>travail de terrain</b> par les acteurs pour identifier les pratiques constructives locales ;</li> <li>• <b>Réaction, révision et validation</b> du document par le biais de deux ateliers ;</li> <li>• <b>Commentaires, révision et recherche des informations manquantes</b> pour finaliser ;</li> <li>• <b>Diffusion</b> de la publication ;</li> <li>• Prise de décision sur la stratégie de cluster intégrant les pratiques de construction locales.</li> </ul>

## FICHES DE PRATIQUES DE CONSTRUCTION LOCALES

### CONTRIBUTIONS DES PARTENAIRES DU CLUSTER (1/2)

#### ✓ PROVISION DE DOCUMENTS

- **Documents existants** sur le logement, les types de bâtiments locaux, les matériaux, les aspects culturels et l'utilisation des logements, etc.
- **Rapports** d'enquêtes sur le terrain.
- **Documents relatifs à des projets de logement** réalisés avec le soutien du secteur et, si possible, liés aux pratiques de construction locales.
- Etc.

#### ✓ PROVISION DE DE PHOTOGRAPHIES / DESSINS / PLANS / CROQUIS

- **Photographies / dessins des établissements humains et de logements, types de constructions locales, matériaux, aspects culturels et d'usage** des logements et des espaces publics, etc.
- **Photographies / dessins de projets de logement** réalisés avec le soutien du secteur et si possible liés aux pratiques de construction locales.
- **Croquis d'utilisation des espaces publics / logements / terrains...**
- Les photographies doivent être d'une **qualité suffisante pour être publiées**, mais toutes les qualités sont les bienvenues et l'équipe fera une sélection.
- Il est essentiel que les images soient **identifiées avec le lieu, la date et l'auteur des images**.

FICHA DE CONTEXTUALIZACIÓN DE IMÁGENES			
Fecha:	Fotógrafo/a:		
Organización:	Permiso para publicar sin ánimo de lucro: <input type="checkbox"/> Sí <input type="checkbox"/> No		
CONTEXTO			
Lugar:	Parroquia civil:	Municipio:	Entidad federal:
Situación:	<input type="checkbox"/> Urbana <input type="checkbox"/> Periurbana <input type="checkbox"/> Rural		
Acceso al asentamiento:	<input type="checkbox"/> Carretera <input type="checkbox"/> Camino de tierra <input type="checkbox"/> Camino accesible únicamente a pie		
¿Se puede acceder al asentamiento en vehículo durante todo el año?			
Accesibilidad a los edificios:	<input type="checkbox"/> Carretera <input type="checkbox"/> Camino de tierra <input type="checkbox"/> Camino accesible únicamente a pie		
Zona de conflicto:	<input type="checkbox"/> Sí <input type="checkbox"/> No		
Riesgos del área:	<input type="checkbox"/> Inundaciones <input type="checkbox"/> Sismos <input type="checkbox"/> Tormentas <input type="checkbox"/> Fuertes vientos / ciclones		
	<input type="checkbox"/> Olas de calor <input type="checkbox"/> Sequías <input type="checkbox"/> Infestación de insectos <input type="checkbox"/> Otros:		
¿Presenta el edificio o su entorno alguna práctica resistente contra estos riesgos? ¿Cuáles?			
	<input type="checkbox"/> Arriostamientos <input type="checkbox"/> Zócalo duradero <input type="checkbox"/> Drenaje <input type="checkbox"/> Estructura flexible <input type="checkbox"/> Tratamiento de materiales <input type="checkbox"/> Voladizos		
O Otros:			
EL EDIFICIO			
Principales usos:	<input type="checkbox"/> Vivienda <input type="checkbox"/> Otros:		
Tamaño aproximado de la parcela:	Construcciones presentes en la parcela:		
Tamaño aproximado del edificio principal:	Número de habitaciones:		
Edad aproximada del edificio:	Nombre del edificio (si lo tiene):		
Mantenimiento: <input type="checkbox"/> Sí <input type="checkbox"/> No	En caso afirmativo, ¿qué mantenimiento?		
¿Cómo se construyó?: <input type="checkbox"/> Autoconstrucción <input type="checkbox"/> Autoconstrucción con apoyo comunitario <input type="checkbox"/> Profesionales			
O Otro sistema:			
MATERIALES			
Cimentación:	<input type="checkbox"/> Madera <input type="checkbox"/> Tierra <input type="checkbox"/> Fibras vegetales <input type="checkbox"/> Piedra <input type="checkbox"/> Lámina metálica <input type="checkbox"/> Concreto / hormigón <input type="checkbox"/> Otro:		
Suelo:	<input type="checkbox"/> Madera <input type="checkbox"/> Tierra <input type="checkbox"/> Fibras vegetales <input type="checkbox"/> Piedra <input type="checkbox"/> Lámina metálica <input type="checkbox"/> Concreto / hormigón <input type="checkbox"/> Otro:		
Muros / estructura:	<input type="checkbox"/> Madera <input type="checkbox"/> Tierra <input type="checkbox"/> Fibras vegetales <input type="checkbox"/> Piedra <input type="checkbox"/> Lámina metálica <input type="checkbox"/> Concreto / hormigón <input type="checkbox"/> Otro:		
Ventanas / puertas:	<input type="checkbox"/> Madera <input type="checkbox"/> Tierra <input type="checkbox"/> Fibras vegetales <input type="checkbox"/> Piedra <input type="checkbox"/> Lámina metálica <input type="checkbox"/> Concreto / hormigón <input type="checkbox"/> Otro:		
Cubierta:	<input type="checkbox"/> Madera <input type="checkbox"/> Tierra <input type="checkbox"/> Fibras vegetales <input type="checkbox"/> Piedra <input type="checkbox"/> Lámina metálica <input type="checkbox"/> Concreto / hormigón <input type="checkbox"/> Otro:		
Otras partes:			
FOTOGRAFÍAS (Si es posible, tome las siguientes fotografías del edificio)			
<input type="checkbox"/> El edificio y su entorno <input type="checkbox"/> Espacios de jardinería, agricultura, almacenamiento de alimentos y ganadería			
<input type="checkbox"/> Todo el edificio a distancia <input type="checkbox"/> Espacios domésticos al aire libre <input type="checkbox"/> Fachadas			
<input type="checkbox"/> Primer plano de los cimientos / zócalo <input type="checkbox"/> Primer plano de la conexión entre el techo y su estructura portante			
<input type="checkbox"/> Espacios interiores <input type="checkbox"/> Estructura del techo <input type="checkbox"/> Mobiliario interior integrado al edificio (tarima elevada, zona de almacenamiento...)			
<input type="checkbox"/> Materiales primas utilizadas para su construcción en el entorno (si es visible)			
<input type="checkbox"/> O Cualquier otro detalle que le parezca interesante			

## CONTRIBUTIONS DES PARTENAIRES DU CLUSTER (2/2)

- ✓ **POSSIBLES VISITES DE TERRAIN** (sur fonds propres des partenaires du cluster)
  - Si les partenaires ont prévu de se rendre sur le terrain, il est possible d'utiliser l'opportunité de leur visite pour **observer / collecter des informations sur les pratiques / cultures locales de construction**. Si les acteurs organisent des enquêtes de terrain (visites de sites, discussions de groupe, discussions avec les personnes cibles), **CRATERre peut aider pour la systématiser la collecte d'informations**.
- ✓ **PARTICIPATION AU GROUPE FOCAL DE PRODUCTION**
  - Toute personne/organisation peut participer au groupe focal de production qui sera plus impliqué dans le processus, ce groupe est ouvert.
- ✓ **LECTURE, RÉVISION DU DOCUMENT ET APPORT D'INFORMATIONS COMPLÉMENTAIRES À DIFFÉRENTS MOMENTS**
  - Contribution avec du contenu, retour d'information, révision et validation du document dans la phase intermédiaire et finale.
- ✓ **PARTICIPATION AUX ATELIERS INTERMÉDIAIRE ET FINAL**
  - Participation à deux ateliers d'une demi-journée maximum pour le retour, la révision et la validation du document.
- ✓ **DIFFUSION DE LA PUBLICATION**
  - Participation à la phase de diffusion de la publication

# MERCI BEAUCOUP POUR VOTRE ATTENTION



**Global Shelter Cluster**  
ShelterCluster.org  
Coordinating Humanitarian Shelter



**USAID**  
FROM THE AMERICAN PEOPLE



Funded by  
European Union  
Humanitarian Aid



**Cluster Abris Burkina Faso**  
ShelterCluster.org  
Coordinating Humanitarian Shelter

# 3. Interventions du cluster

## 3.1. Discussions et validation du plan d'action 2022

# CLUSTER COORDINATION PERFORMANCE MONITORING REPORT AND ACTION PLAN 2022

## Rapport d'Evaluation Suivi de la Performance et Plan d'Action de la Coordination du Cluster

**Cluster :** Abris & Articles Ménagers Essentiels

**Pays :** Burkina Faso

**Niveau :** National

**Date de lancement de l'évaluation :** 26 Novembre 2021

**Date de finalisation de l'évaluation :** 13 Décembre 2021

### Taux de réponse au sein des partenaires

Type de Partenaires	Nombre de partenaires repondants (Niveau National / Sous- National)	Nombre Total de partenaires	Taux de reponse
ONGs Internationales	9	14	64%
ONGs Nationales	1	1	100%
Organisations UN	3	3	100%
Autorites Gouvernementales	0	1	0%
Bailleurs	1	1	100%
Autres	1	2	50%
<b>Total</b>	<b>15</b>	<b>17</b>	<b>88%</b>
<b>Commentaires sur le taux de réponse</b>	La réponse globale est bonne. Il y a un grand nombre d'organisations internationales qui répondent. Le taux de réponse des autorités nationales est a 0%. Le cluster fera un plaidoyer auprès des autorités nationales afin qu'ils participent aux évaluations du cluster		
<b>Autres commentaires</b>	Le cluster invitera les bailleurs en général, les organisations et autorités nationales à participer aux réunions du cluster.		



# Cluster Coordination Performance Monitoring Report - 2021

Fonctions essentielles des clusters	Partenaires	Coordinateurs
1. Soutenir la prestation de service	78%	81%
2. Informer la prise de décision stratégique	78%	88%
3. Planifier et mettre en œuvre des stratégies sectorielles	72%	75%
4. Surveiller et évaluer les performances de réponse	77%	75%
5. Renforcer les capacités nationales en matière de préparation	57%	63%
6. Soutenir un plaidoyer	58%	75%
7. Soutenir la responsabilisation envers les populations touchées	67%	75%



Fonctions essentielles des clusters	Plan d'action	Délai	Responsables du suivi des actions
1. Soutenir la prestation de service	<ul style="list-style-type: none"> <li>• Améliorer la réponse aux urgences</li> <li>• Revoir la stratégie de réponse dans les centres urbains et d'accès à la terre.</li> <li>• Travailler avec l'AOR LTB pour la sécurisation des terres</li> <li>• Promouvoir la localisation en encourageant l'implications des structures nationales.</li> <li>• Poursuivre la revue des typologies des abris</li> <li>• Plaidoyer pour l'implication effective des autorités dans les réunions de coordination</li> </ul>	12 mois	UNHCR NRC
2. Informer la prise de décision stratégique	<ul style="list-style-type: none"> <li>• Redynamisation des réunions de groupe de travail (TWIGs).</li> <li>• Révision de la stratégie du secteur des leçons apprises</li> <li>• Prioriser les réponses d'urgence,</li> <li>• Amélioration de la coordination entre acteur</li> <li>• Améliorer le partage des rapports des partenaires</li> <li>• Renforcement des capacités des acteurs trois fois dans l'année.</li> <li>• Améliorer la visibilité du cluster</li> </ul>	12 mois	PLAN HI



<b>3. Planifier et mettre en œuvre des stratégies sectorielles</b>	<ul style="list-style-type: none"> <li>• Travailler en synergie avec les autres secteurs (WASH, GSAT, Protection) pendant le processus de planification pour une réponse intégrée.</li> <li>• Tenir compte dans la planification des augmentations futures de cibles (Stock de contingence)</li> </ul>	<b>12 mois</b>	<b>CROIX ROUGE BURKINABE CRS</b>
<b>4. Surveiller et évaluer les performances de réponse</b>	<ul style="list-style-type: none"> <li>• Evaluations PDM et partage des rapports</li> <li>• Suivi périodique des activités de terrain</li> <li>• Evaluation conjointe Cluster abris, WASH, protection et GSAT.</li> <li>• Poursuivre le remote monitoring dans les zones difficile d'accès.</li> <li>• Renforcement de capacités des acteurs du cluster dans et évaluation des interventions</li> </ul>	<b>12 mois</b>	<b>DEDI AIRD</b>



<p><b>5. Renforcer les capacités nationales en matière de préparation</b></p>	<ul style="list-style-type: none"> <li>• <b>Formation des ONGs nationales sur la mobilisation des fonds</b></li> <li>• <b>Evaluer les besoins en formation des partenaires nationales et les former sur ces thématiques.</b></li> <li>• <b>Faire coaching des ONGs nationales</b></li> </ul>	<p><b>12 mois</b></p>	<p><b>UNICEF SOLIDARITES ACTED</b></p>
<p><b>6. Soutenir un plaidoyer</b></p>	<ul style="list-style-type: none"> <li>• Continuer le plaidoyer auprès de bailleurs de fonds pour financement du secteur</li> <li>• Plaidoyer auprès de bailleur locaux, régionaux et internationaux</li> <li>• Mapping des bailleurs</li> <li>• Rencontre conjointe avec les partenaires pour supporter leur mobilisation de ressources</li> <li>• Présentation semestrielle des activités du cluster aux bailleurs</li> </ul>	<p>12 mois</p>	<p>CHRISTIAN AID APADE CROIX ROUGE LUXEMBOURGEOIS</p>



<b>7. Soutenir la responsabilisation envers les populations touchées</b>	<ul style="list-style-type: none"> <li>• Suivi des engagements signés par les partenaires.</li> <li>• Renforcer la capacité des comités de plaintes</li> <li>• Recueillir périodiquement les retours des bénéficiaires sur la réponse.</li> <li>• Traduire les outils de communication en langue locale et dissimuler dans les communautés et sur les sites des déplacés internes.</li> <li>• Consultation régulière de bénéficiaires et tenir compte des habitudes culturelles de bénéficiaires dans la réponse en abris et AMEs</li> </ul>	<b>12 mois</b>	<b>OIM HELP</b>
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### **Commentaires ou informations supplémentaires sur les performances des clusters de la part des partenaires nationaux**

- Améliorer la communication envers les populations affectées
- Renforcer les mécanismes de plaidoyer
- Le secteur en général fait de son mieux pour coordonner ses activités, mais parfois l'engagement de l'autorité de l'État est faible dans l'accomplissement de ses propres responsabilités. D'où la nécessité d'informer davantage les responsables de l'État sur les réponses humanitaires et la conformité. Le secteur doit être ouvert à toutes les informations à tout moment, ce qui améliorera certainement la coordination du secteur.

### **Commentaires des coordinateurs de cluster**

- Des efforts énormes sont fournis par le cluster. Cependant, des efforts supplémentaires doivent être fournis dans le cadre du plaidoyer afin de rehausser la capacité du cluster à soutenir les personnes dans le besoin.
- Le renforcement de capacités des ONGs nationales afin d'assurer la continuité reste l'un des points sur lesquels le cluster doit améliorer
- Il y a également besoins d'améliorer la communication envers les populations affectées.

# Proposition d'activités par indicateur

**Objectif Stratégique 1 : En 2022, 3.4 millions de femmes, hommes, filles, garçons, personnes âgées et personnes en situation de handicap affectés par la crise humanitaire ont vu leur accès aux services sociaux de base amélioré à travers une assistance multisectorielle d'urgence digne et adaptée à leurs besoins, fournie à temps et dans un environnement de protection.**

**Objectif spécifique 1.1 : OS2.1 3.4 millions de femmes, hommes, filles, garçons et personnes en situation de handicap plus vulnérables vivant dans les zones les plus difficiles d'accès ont un accès protégé, amélioré et continu à des services sociaux de base (Éducation, EHA, Santé, Nutrition), un habitat digne, une alimentation appropriée et des moyens de subsistance adaptés**

OBJECTIFS SECTORIELS	INDICATEURS	ACTIVITES	DELAI	RESPONSIBLE DU SUIVI
Objectif sectoriel 1.1.1 : Assurer une couverture adéquate et immédiate en abris d'urgence et en AME aux populations affectées par la crise.	% ménages affectés par la crise qui disposent d'une quantité suffisante d'articles appropriés de couchage, cuisine et éclairage.			
	% ménages affectés par la crise qui ont accès à un abri d'urgence adéquats selon les normes SPHERE et approprié selon les habitudes de la population.			
Objectif sectoriel 1.1.2 : Assurer sur le moyen et le long terme, l'accès équitable à des conditions de vie dignes pour les personnes affectées par la crise (personnes déplacées internes, familles d'accueil et le cas échéant retournés), en facilitant l'accès à un abri sécurisé et à des AME appropriés.	% d'espaces d'accueil ayant bénéficié des travaux d'aménagement.			
	% ménages affectés par la crise qui ont accès à des conditions de logement adéquates pour moyen ou le long terme.			
Objectif sectoriel 1.1.3 : Assurer la coordination et la qualité dans la mise en œuvre de solutions d'urgence et durables à travers la collecte, l'analyse et le partage des données, le renforcement des capacités et la préparation aux urgences.	Résultat positif de l'exercice d'évaluation "Cluster Coordination Performance Monitoring"			

**Objectif spécifique 1.2 : OS2.3 3.4 millions de personnes vulnérables dans les zones prioritaires continues de bénéficier d'un accès adéquat à l'information et aux moyens de prévention de la COVID-19**

Objectif sectoriel 1.2.1 : Assurer un accès adéquat à l'information et aux moyens de prévention contre la COVID-19	% ménages affectés par la crise qui disposent d'information et des moyens de prévention contre la COVID-19			
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# 4. Divers

- a. Planification des réunions du cluster abris
- b. Retours sur la révision de la stratégie (Tous les partenaires)
- c. Mouvement d'un village à Djibo





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