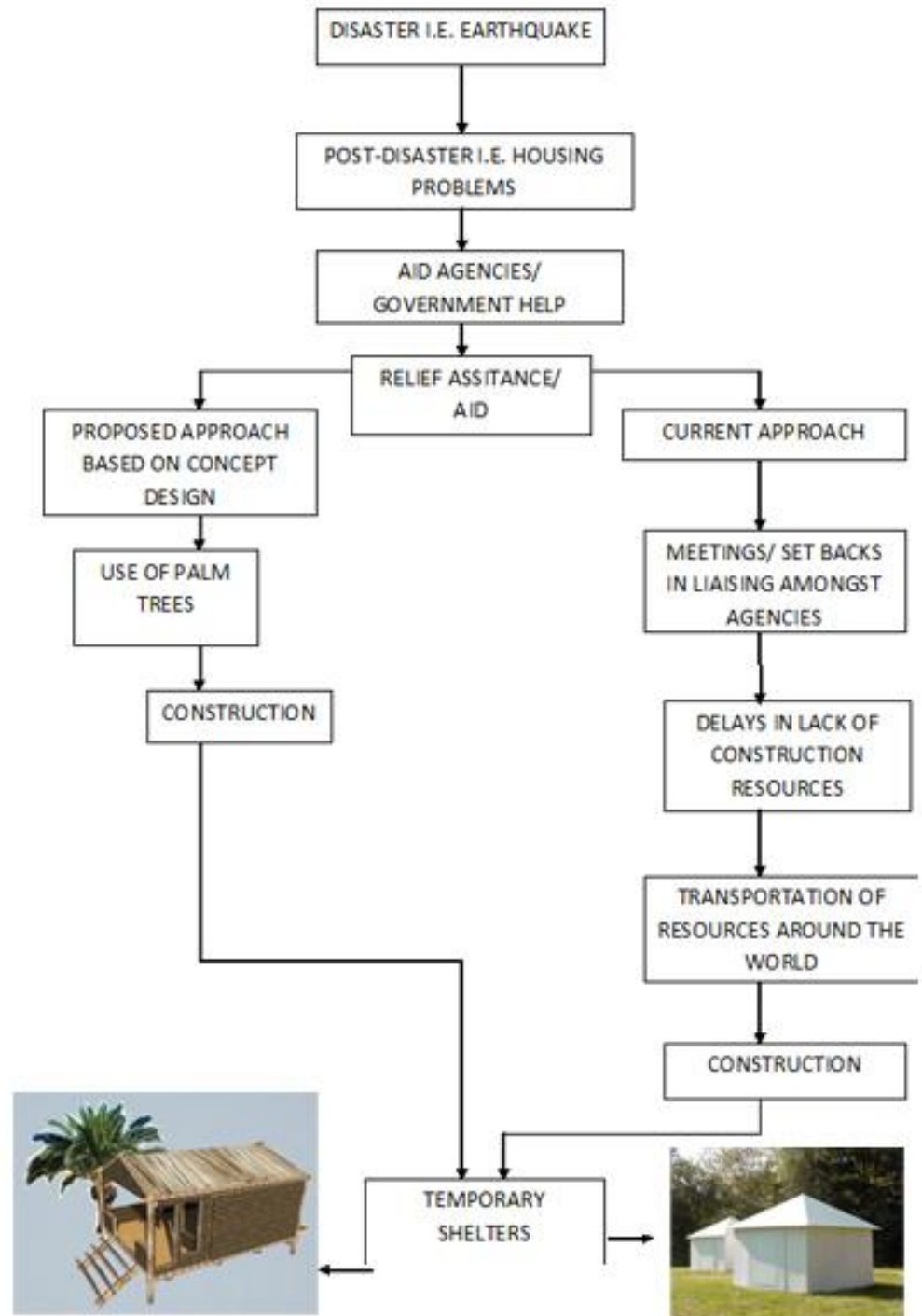


## EXECUTIVE SUMMARY

THE FREQUENCY OF NATURAL DISASTERS, PARTICULARLY IN DEVELOPING COUNTRIES, HAS DRASTICALLY INCREASED IN THE RECENT YEARS. ONE OF THE COMMON PREDICAMENTS FACED DURING POST-DISASTER IS HOUSING POST-DISASTER VICTIMS IN AN UNPRECEDENTED SITUATION. WHILE IN MANY INSTANCES THE PROVISION OF SHELTER MAY BE INEVITABLE, SUCH PROVISIONS OFTEN NEGLECT THE FACT THAT IN THE EVENT OF DISASTERS, FAMILIES AND COMMUNITIES LOSE MORE THAN THE MERE BUILDINGS - AND THAT IS HOME. THESE „HOME OR DWELLINGS ARE THE REFLECTION OF THEIR CULTURAL BELIEFS, SOCIAL AND ECONOMIC PRACTICES AND ASPIRATIONS AS WELL AS THEIR RELATION TO THE COMMUNITY AND THE ENVIRONMENT. AS HAS BEEN ADDRESSED BY MANY RESEARCHERS, THE PERSISTENT FAILURE OF RELIEF AND RECONSTRUCTION PROGRAMS IN MOSTLY DEVELOPING NATIONS ARE MODELLED PREDOMINANTLY ON THE CENTRALISED PLANNING AND ARCHITECTURE ADAPTATION OF FOREIGN NATIONS WHICH ARE PERCEIVED BY LOCALLY POOR COMMUNITIES AS ALIENATING AND BEARING REMOTE SIGNIFICANCE TO THEIR VIBRANT CULTURE. THE USE OF LOCAL MATERIALS SUCH AS PALM TREE CAN BE A SIGNIFICANT BUILDING MATERIAL THAT CAN ADDRESS THIS ALIENATING CONCEPT PERCEIVED WITHIN POST-DISASTER COMMUNITIES OF THE APPROPRIATENESS OF FOREIGN BUILDING RESOURCES. THIS STUDY TOOK AN EXPLORATORY STUDY INTO POLYNESIAN ARCHITECTURE WHERE THE PALM TREE IS EXTENSIVELY USED AS A BUILDING MATERIAL AND FROM THIS UNDERSTANDING AND FACTUAL DATA DEVELOPED A POST-DISASTER CONCEPTUAL TEMPORARY MODEL THAT EMBRACES THE CULTURAL, SOCIAL AND VERNACULAR ARCHITECTURE OF HAITI.



**CONCEPT DESIGN DEVELOPED BASED ON VERNACULAR ARCHITECTURE OF HAITI.**



**LEFT:** : SKETCH OF WEST-AFRICAN DWELLING.  
**SOURCE:** UNC-CH DIGITIZATION PROJECT, 1998

**BELOW:** HAITIAN ADAPTATION OF WEST-AFRICAN HOUSE  
**SOURCE:** THE WORLD HOUSING ENCYCLOPEDIA, 2010

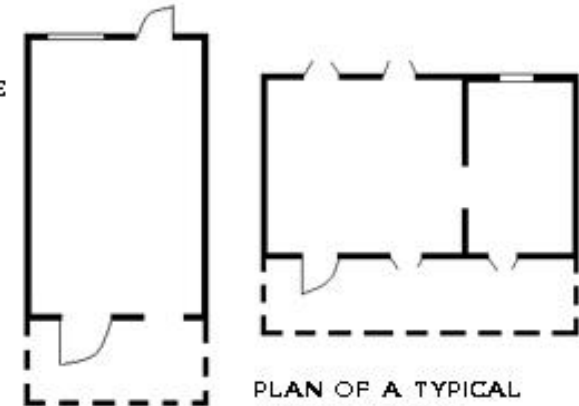
**A TYPICAL DEPICTION OF WEST-AFRICAN DWELLING**



**ABOVE:** ANOTHER HAITIAN VERNACULAR ARCHITECTURE  
**SOURCE:** WORLD HOUSING ENCYCLOPEDIA, 2010



**THE ABOVE HAITIAN HOUSE IS MOST COMMON OR PREVALENT IN SOUTHERN HAITI, WHERE MANY FREED SLAVES INITIALLY SETTLED.**



**PROPOSED TEMPORARY SHELTER**

**PLAN OF A TYPICAL HAITIAN HOUSE**

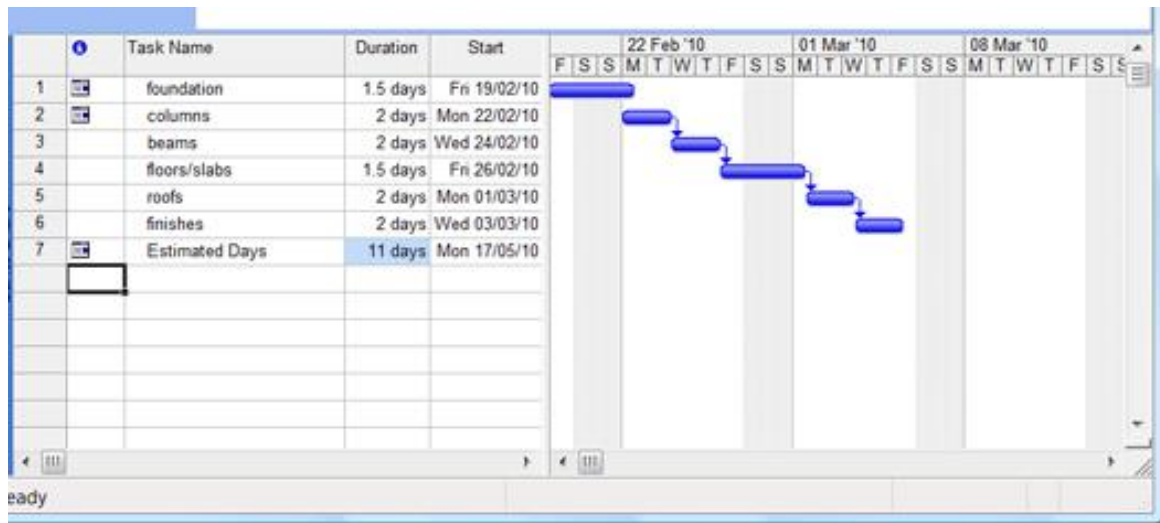
**SIMILARITIES BETWEEN THE PROPOSED TEMPORARY SHELTER AND A HAITIAN VERNACULAR ARCHITECTURE.**

**THE CONCEPT DESIGN: TEMPORARY SHELTER, IS AN ADAPTATION OF HAITIAN VERNACULAR ARCHITECTURE WHICH IS HELD IN HIGH ESTEEM BY THE LOCALS DUE TO ITS HISTORICAL SIGNIFICANCE AND CULTURAL IDENTITY. ALL THE ELEMENTS SUCH AS GALERIE, VERANDAS HAVE ALL BEEN PRESERVED IN THE PROPOSED TEMPORARY SHELTER.**



**ABOVE:** CONCEPT DESIGN





LEFT: HAITIAN HOUSE



**DURATION OF CONSTRUCTIING EACH HOUSING UNIT.  
ILLUSTRATING HOW SOME OF THE ELEMENT, I.E. WALLS WILL BE CON-  
STRUCTED**

PALM LEAVES WILL BE USED FOR CONSTRUCTING BOTH THE EXTERNAL AND INTERNAL WALLS. IT WILL BE THATCHED TO THE INTERNAL FRAMES. THE FRAMES WILL BE CREATED USING HAITIAN WOVEN PANELLING TECHNIQUE AT A DISTANCE OF 500MM CENTRE TO CENTRE SPACING. THE BRANCHES OF THE PALM TREE WILL BE WOVEN ROUND THESE INTERNAL STICKERS

**HAITIAN WOVEN WALL PANELS AND EARTHFAST CONSTRUCTION TECHNIQUE**



THE PALM LEAVES WILL BE ATTACHED TO THE INTERNAL FRAMES USING THE POLYNESIAN BRAIDED PALM FIBRE. THE LENGTH OF THE CONNECTION SHOULD BE 500MM. THIS WILL MAKE IT EASIER TO TAKE DOWN, WHEN THEY WEAR OUT OR NEED REPLACEMENT. ALTERNATIVELY, PALM LEAVES COULD BE WOVEN INTO MATS, 1000MM BY 3000MM, AND HANGED FROM TOP OF BEAM TO THE BOTTOM, USING THE SAME CONNECTION. INDIVIDUAL PREFERENCE.

**COMPLETED TATCHED WALL.**



## COMMUNITY BUILDING TOGETHER



THE CONCEPT DESIGN HAS BEEN PROPOSED WITH THE ADDED FLEXIBILITY OF A DO-IT-YOURSELF (DIY) CONCEPT IN MIND. THIS IS TO PROMOTE SELF-RELIANCE AND PRIDE IN DEVASTATING TIMES, INDIVIDUALS ERECT THEIR OWN HOMES. ACCORDING TO RIBA (2008), THE BEST POSSIBLE RESPONSE TO DESTRUCTION WOULD BE TO REBUILD VILLAGES AND TOWNS, WHOSE URBAN DESIGN DEMONSTRATES AN IMAGINATIVE APPLICATION OF LOCAL WISDOM AND FINEST SCIENCE TO AVAILABLE RESOURCES. THE TEMPORARY CONCEPT DESIGN ENCAPSULATES THESE ENTIRE ESSENTIAL ELEMENTS IN FILLING THE POST-DISASTER HOUSING GAP QUICKLY AND PROVIDING A POTENTIALLY IMPROVED ALTERNATIVE METHOD TO THE QUESTIONABLE CURRENT APPROACH. THE APPENDICES SHOW DETAILED ILLUSTRATIONS OF HOW THE TEMPORARY SHELTERS WILL BE CONSTRUCTED OR ASSEMBLED TOGETHER.



## FLEXIBILITY OF EXTENSION



AT THE OUTSET, TEMPORARY SHELTERS WILL BE VIVID GREEN, DEPICTING THE NATURAL STATE OF THE PALM .



WEATHERING OF TEMPORARY SHELTER



EXTENDING STRUCTURE USING PERMANENT MATERIALS

THE USE OF MORE PERMANENT MATERIALS TO OFFER OPTIMUM RESISTANCE AGAINST DISASTERS, I.E. EARTHQUAKES AND HURRICANES. A PHASE OF TRANSITION FROM TEMPORARY SHELTER INTO PERMANENT DWELLINGS.



POSSIBLE EXTENSION OF SHELTER

## NEIGHBOURHOOD EVOLUTION



**EACH SINGLE UNIT IS EASY, RELATIVELY INEXPENSIVE AND QUICK TO ERECT THEREFORE A CLUSTER OF TEMPORARY SHELTERS CAN BE CONSTRUCTED TO HOUSE DISASTER VICTIMS QUICKER THAN THE CURRENT**



**AS TIME WEARS ON, SOME VICTIMS WILL UNDOUBTEDLY SETTLE OUTSIDE THE CLUTTERED AREA OR RELOCATE INTO FEW, SLOWLY BUILT PERMANENT HOUSES ERECTED BY GOVERNMENT AND AID AGENCIES, THEREFORE CREATING SPACES FOR REMAINING SETTLERS TO EXPAND, DEVELOP. NEW COMMUNITIES OR NEIGHBOURHOODS TO EVOLVE NATURALLY WHICH EMBODIES THEIR HISTORY, SOCIAL NETWORKS, AND CULTURAL VALUES.**

**REPEATED ELEMENTS AND CONSISTENT SPACING (LIKE SET-BACK DISTANCE FROM THE STREET AND SPACING BETWEEN BUILDINGS) DEFINE A SHARED IMAGE OF THE COMMUNITY AND ALSO IMITATE THE NOSTALGIA OF THE NEIGHBOURHOOD BEFORE THE POST-DISASTER.**





## SOURCE OF INCOME IN POST-DISASTER CRISES



THE WALLS OF THE PROPOSED CONCEPT DESIGN WILL BE CONSTRUCTED OUT OF BRAIDED PALM LEAVES, ADAPTED FROM POLYNESIAN HOUSES WHICH CAN BE DONE INDIVIDUALLY OR BOUGHT FROM DESIGNATED GROUPS WITHIN THE COMMUNITY AT A RELATIVELY CHEAPER AND AFFORDABLE RATE. THIS STRATEGY HELPS TO RESTART THE LOCAL ECONOMY AND CREATES JOBS, VOCATION AND TRAINING OPPORTUNITIES FOR DISASTER VICTIMS OR COMMUNITIES SEEKING TO RESTART THEIR LIVES. THIS POTENTIAL FINANCIAL REVENUE WILL PROMOTE A MORE DIVERSIFIED ECONOMY WITHIN THE LOCAL COMMUNITY. ACCORDING TO ALEXANDER (2002) PROMOTING A DIVERSIFIED ECONOMY ENHANCES A COMMUNITY'S ABILITY TO WITHSTAND THE IMPACT OF DISASTERS. STATING FURTHER THAT, NOT ONLY WILL COMMUNITIES BECOME LESS VULNERABLE WHEN FACING DISASTERS, BUT THEIR LOCAL ECONOMIES WILL ALSO BE MORE RESILIENT DUE TO LOWER RECOVERY COSTS AND DIMINISHED DISRUPTION OF ECONOMIC ACTIVITY.



