

KITO-health

A MOBILE HEALTH-CENTER FOR EMERGENCIES



KITO Onlus

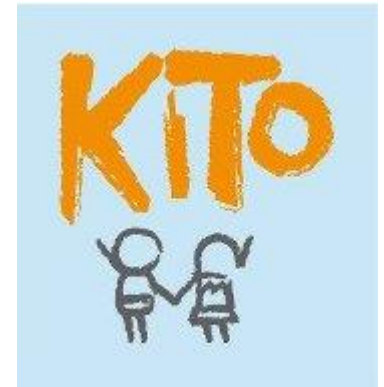
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PRESENTATION

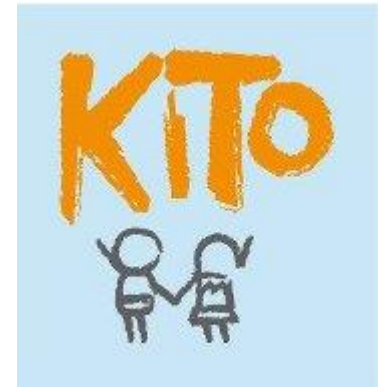
KITO ONLUS



- When emergencies like earthquakes, conflicts, famines, etc. happen, the international cooperation has to provide fast and efficient assistance
- Above all, the attention has to be turned to the weakest groups of the affected population: particularly children must be the direct and indirect beneficiaries of interventions to safeguard and protect their psycho-physical stability.
- Kito Onlus is a non-profit organization, founded in 2012, whose mission is to promote education and first aid through a mobile and ecologically sustainable unit useful in regions devastated by natural or human-inflicted disasters.

PRESENTATION

KITO-HEALTH



- Kito-Health is a mobile and ecologically sustainable prefab unit useful in regions devastated by natural or human-inflicted disasters
- Kito-Health was designed by Mrs. Paola Vecchiato, after her experience in the post-earthquake Haiti
- Kito Onlus has been able to gather the funds for building the first prototype of Kito-Health and delivered it to the Philippines in December 2013

LOCAL CONTEXT - PHILIPPINES



Combined Risk to Geophysical Disasters

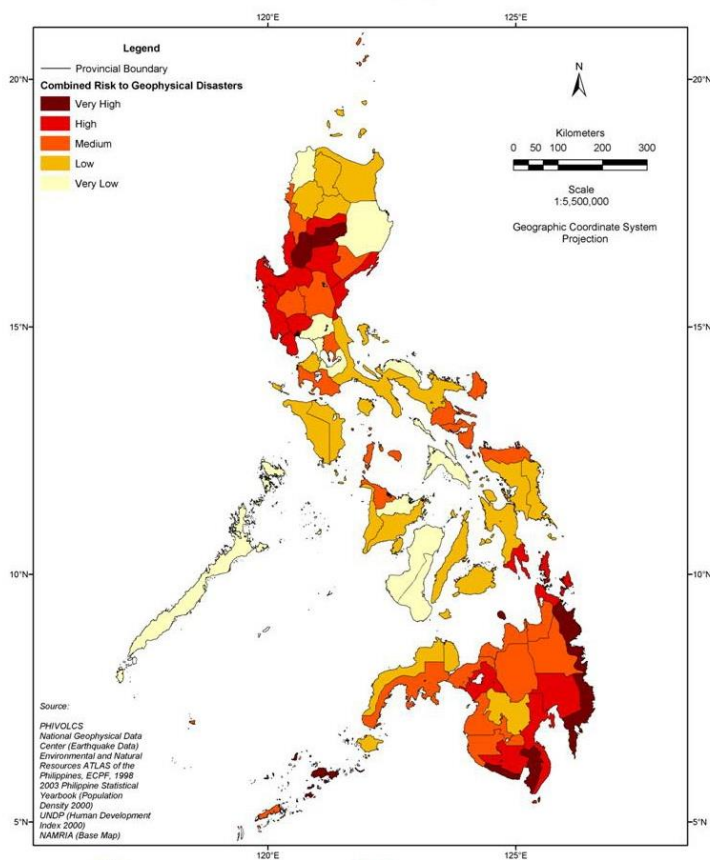


Table 2. Number of Natural Disasters in the Philippines, 2000-2012

Year	Drought	Earthquake (seismic activity)	Epidemic	Flood	Mass movement dry	Mass movement wet	Storm	Volcano	Total
2000	0	0	1	3	1	1	6	1	13
2001	0	0	0	3	0	0	6	2	11
2002	1	1	0	4	0	0	6	0	12
2003	0	0	1	1	0	1	8	0	11
2004	0	0	1	3	0	1	8	0	13
2005	0	0	0	2	0	0	2	0	4
2006	0	0	0	6	0	3	10	1	20
2007	1	0	0	5	0	0	9	1	16
2008	0	0	0	8	0	0	11	0	19
2009	0	1	0	8	0	0	14	1	24
2010	0	0	1	9	0	0	3	1	14
2011	0	1	3	15	0	0	12	2	33
2012	0	3	1	5	0	1	7	0	17
Total	2	6	8	72	1	7	102	9	207

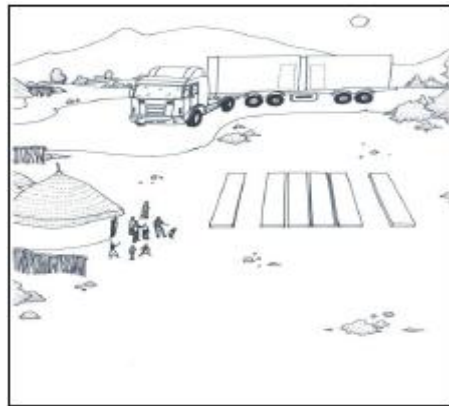
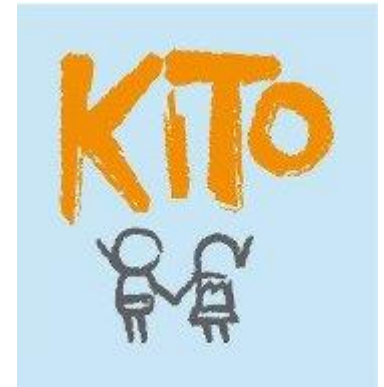
Source: Emergency Events Database (EM-DAT): The Office of U.S. Foreign Disaster Assistance (OFDA)/CRED International Disaster Database.

HOW DOES KITO-HEALTH WORK?

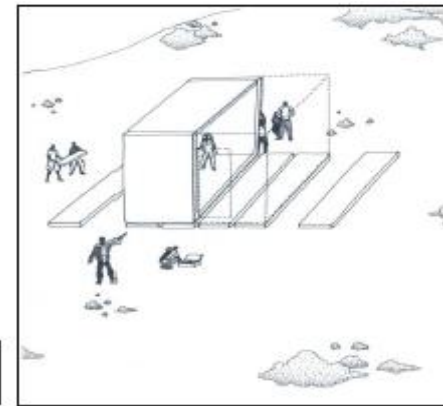


- Kito Onlus builds Kito-Health in Italy, where the NGO is headquartered, because of the mechanism and the innovative materials used for the construction
- Kito-Health is then shipped to a country affected by an emergency or at high risk of vulnerability
- Thanks to its standard dimension, Kito-Health can be delivered both with trucks and/or ships
- Once Kito-Health arrives to its destination, it has to be put on a flat ground and manually opened (NOTE: one person is sufficient to open it)
- **KITO-HEALTH IS READY TO BE USED!!!**

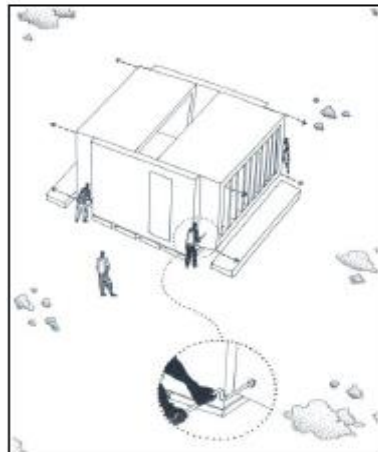
HOW DOES KITO-HEALTH WORK?



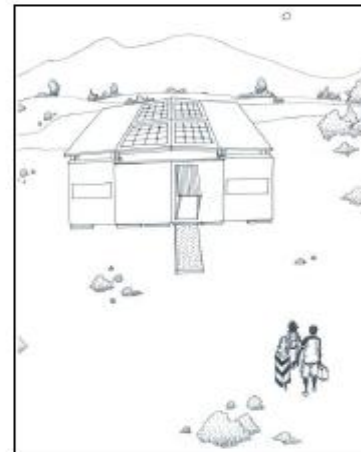
1st STEP



2nd STEP



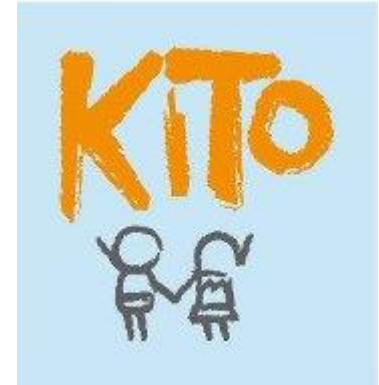
3rd STEP



4th STEP

DIMENSIONS

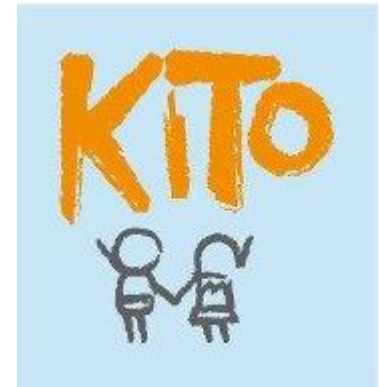
KITO-HEALTH



- One prefab module
- Every module can be aggregated to another one to duplicate the health-center
- The module contains an extractable part in order to double its size
- Shippable as middle-size container. One module is indeed:
 - 6.058m (19ft 10 $\frac{1}{2}$ in) long
 - 2.896m (9ft 6 $\frac{1}{64}$ in) high
 - 2.438m (7ft 11 $\frac{63}{64}$ in) large
- Inner empty space during shipment: 29.96m³ (1058.0ft³) for: equipment, medicines, food, etc.
- Inner space when opened: 24 sqm (1 ambulatory + 3 rooms)
- Dimensions respect INEE and UNICEF minimum standards

FEATURES

KITO-HEALTH



- Settable in any kinds of soil without founds
- Modules could be easily assembled on site without the need of specialized workers and simply moved to other places in the future
- Very mechanized structure: all the technical devices are enclosed in the counter-ceiling and in the floor;
- The roof slope allows the rainwater to flow down collecting it on a basin for hand-wash hygiene;
- The electricity is provided by photovoltaic panels on the top of the structure and if necessary, the heating as well as conditioning system could work by solar panels

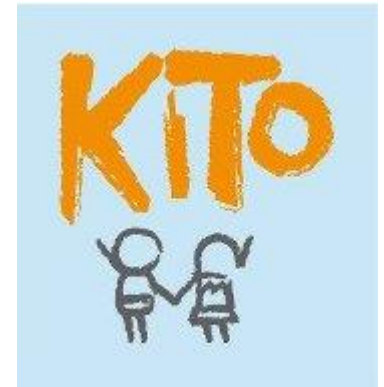
FEATURES

KITO-HEALTH

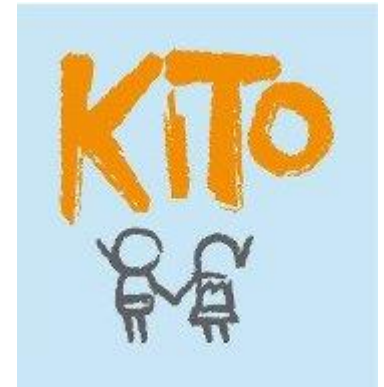


FEATURES

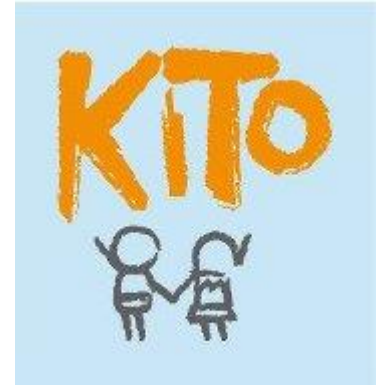
KITO-HEALTH



KITO-HEALTH TRANSPORTATION



BUILDING MATERIALS KITO-HEALTH

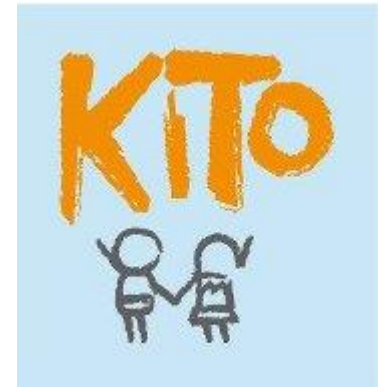


- The building structure and its mechanism are made of steel, covered by timber, metallic or plastic thermo-insulated panels, depending on the climatic and natural context
- Beneficiaries can personalize the unit with local materials and decorations (wood, bamboo, etc)
- Reflection panels on the roof to maintain the room cold when outside it's hot and warm
- Good room aeration generated by the possibility of opening some panels and/or insert wood sunshade louvers on the walls.

**THIS IS A DRY CONSTRUCTION SYSTEM
WITH NO WASTE OF RESOURCES**

AUTOSUSTAINABILITY

KITO-HEALTH



- Photovoltaic panels located on the roof provide 2.25Kws of energy per module
- Storage batteries can accumulate up to 6Kws.
- The solar system doesn't need sunbeams to work but only sunlight
- Energy accumulated during the day is enough to work during the whole night

BUDGET KITO-HEALTH

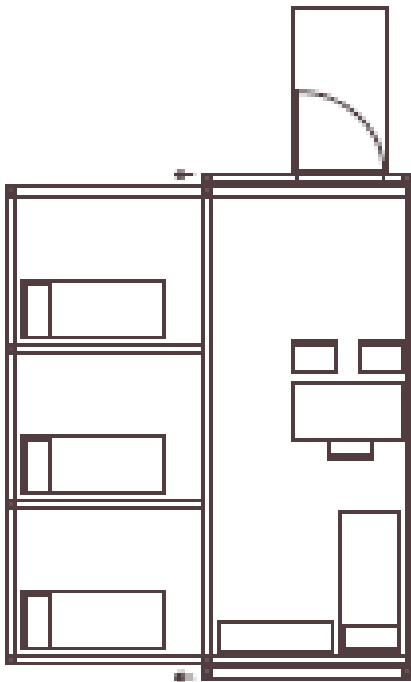
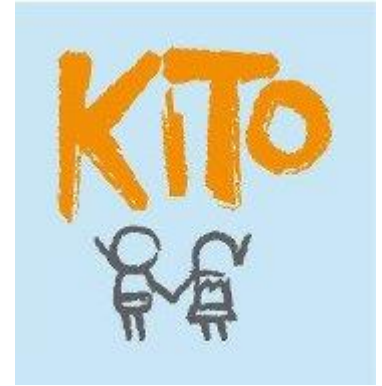


- Due to its innovative features Kito-Health costs approximately

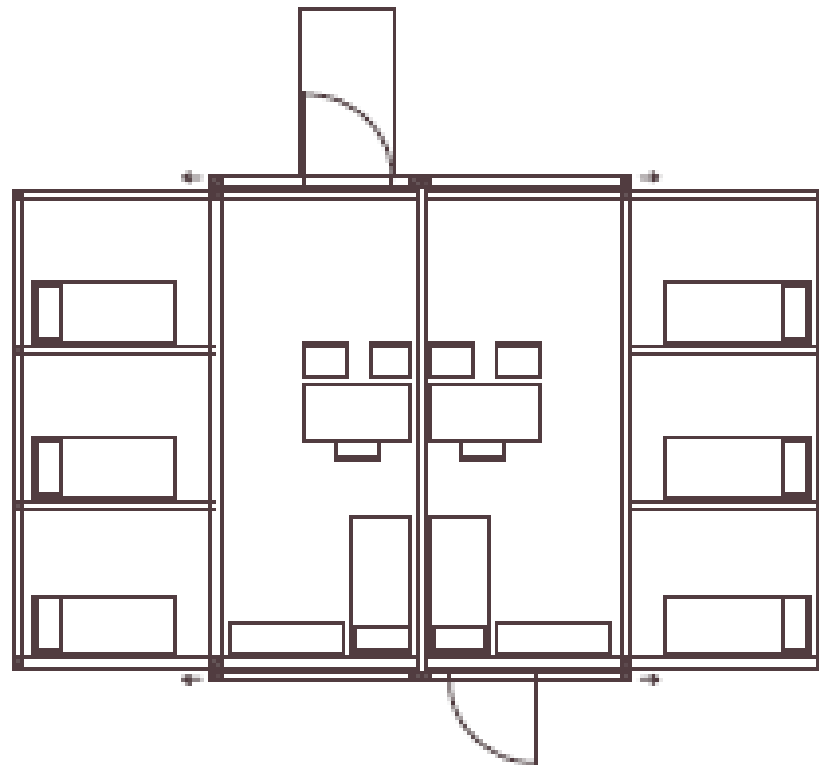
70,000\$

- The cost of the unit is completely covered by technical sponsors, donations and funds raised by Kito Onlus
- There are **NO OTHER COSTS** during its whole life
- No maintenance
- No gasoline for engines and no costs for energy provision
- The only cost supported by the Local Government is the shipping cost from Europe

KITO-HEALTH IS A HEALTH CENTER ...

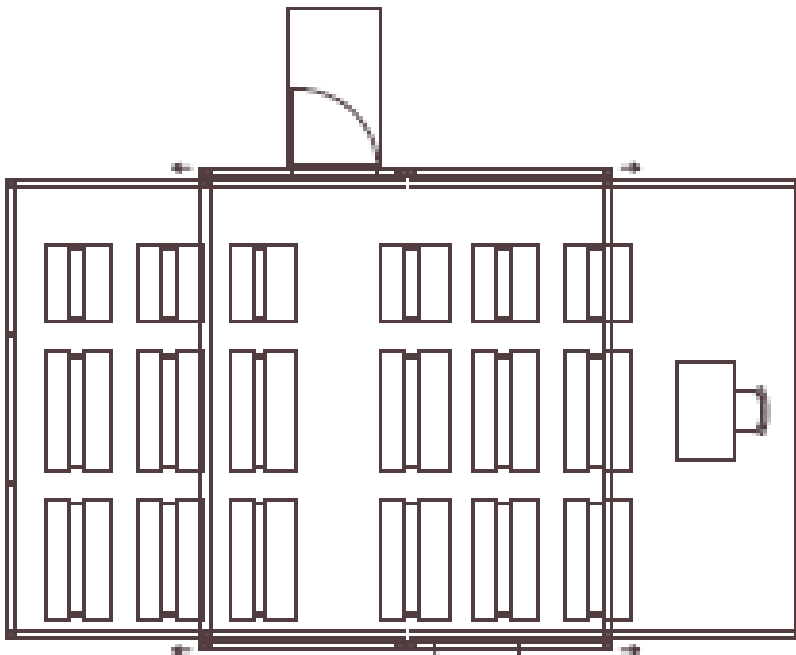


4-patient health care center

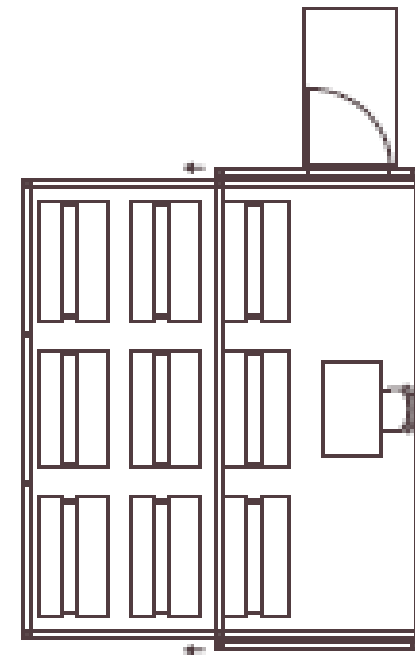


8-patient health care center

BUT CAN BE ALSO USED AS SCHOOL

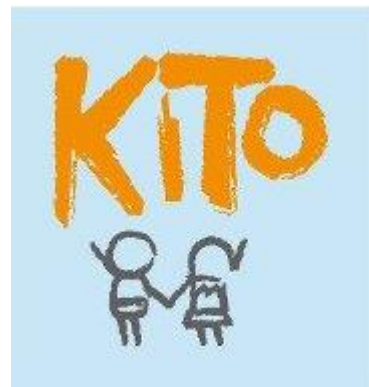


50-children classroom

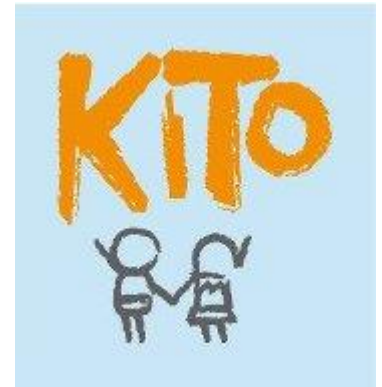


25-children classroom

How KITO HEALTH IS MADE



TECHNICAL DETAILS OF KITO-HEALTH

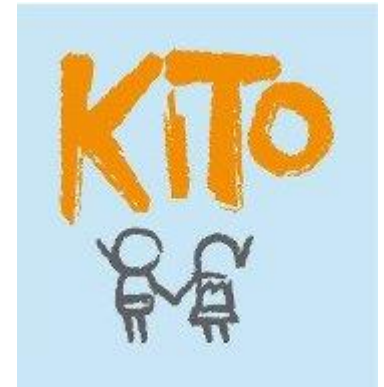


To see the entire album click [here](#).

KITO-HEALTH ON SITE



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IMPROVING EDUCATION AND HEALTH IN EMERGENCY



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