

KITO-health

A MOBILE HEALTH-CENTER FOR EMERGENCIES



KITO Onlus

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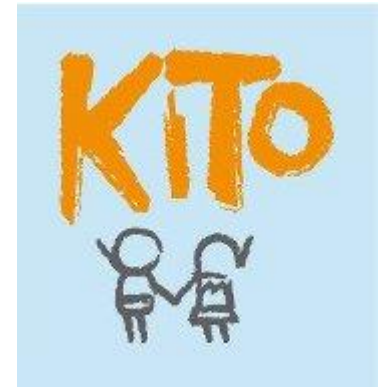
PRESENTATION

KITO ONLUS



- When emergencies like earthquakes, conflicts, famines, etc. happen, international cooperation has to provide prompt and effective assistance
- Several researches and studies showed a huge negative correlation between the presence of a proper healthcare system during emergencies and child mortality.
- Kito Onlus is a non-profit organization, founded in 2012, whose mission is to promote education and health 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-earthquaked Haiti
- Kito Onlus has been able to gather the necessary funds for building the first prototype of Kito-Health and its delivery to San Fernando La Unión in the Philippines in Fall 2013.

LOCAL CONTEXT - PHILIPPINES



Combined Risk to Geophysical Disasters

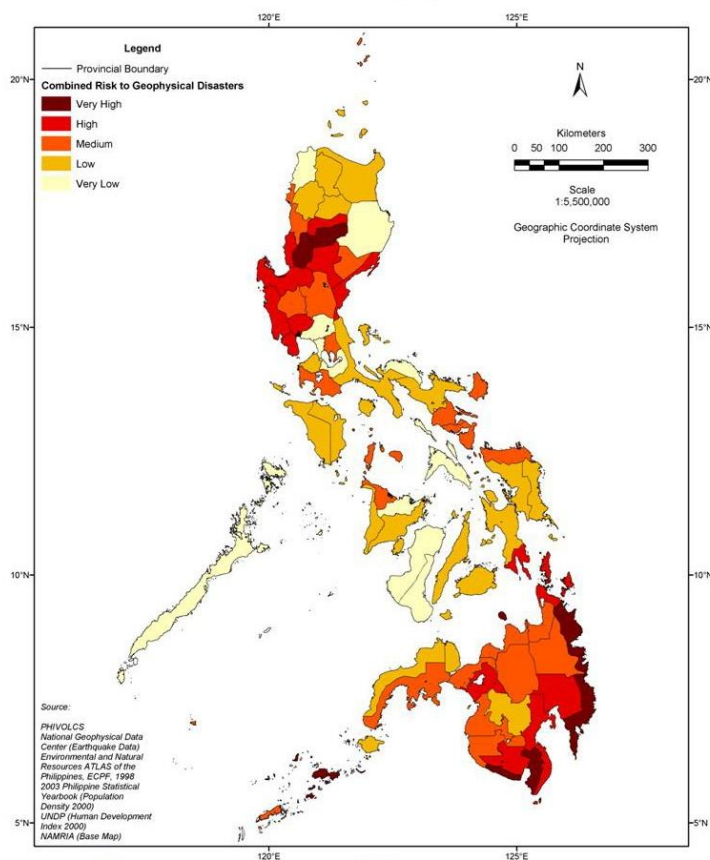


Table 2. Number of Natural Disasters in the Philippines, 2000-2012

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

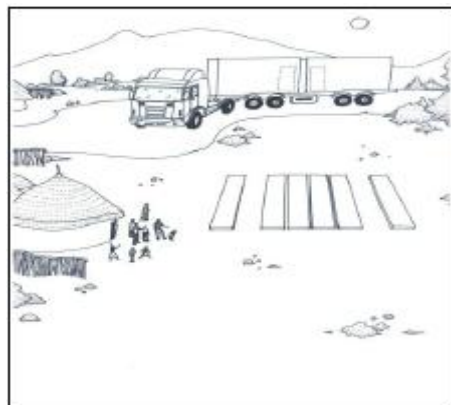
Source: Emergency Events Database (EM-DAT): The Office of U.S. Foreign Disaster Assistance (OFDA)/CRED International Disaster Database.

HOW DOES KITO-HEALTH WORK?

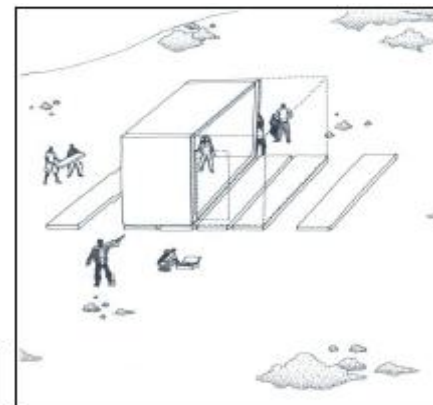


- Kito Onlus builds Kito-Health in Italy, where the NGO is headquartered, because of the mechanism and the innovative materials used for the construction
- Kito-Health is then shipped to a country affected by an emergency or at high risk of vulnerability
- Thanks to its standard dimension, Kito-Health 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: two people are sufficient to open it)
- **KITO-HEALTH IS READY TO BE USED!!!**

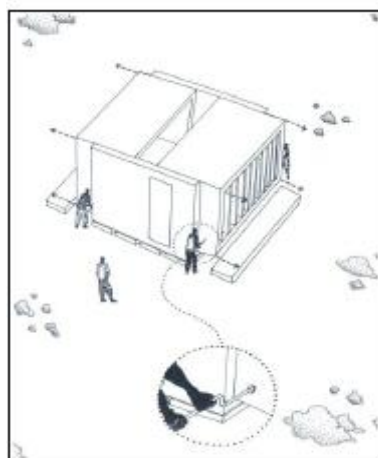
HOW DOES KITO-HEALTH WORK?



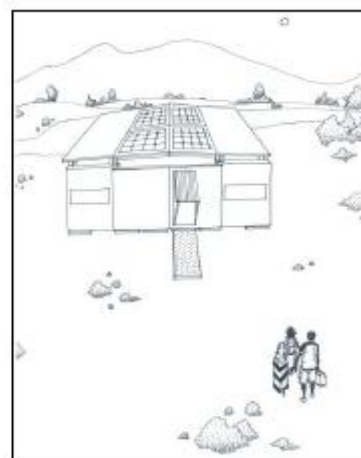
1st STEP



2nd STEP



3rd STEP



4th STEP

HOW DOES KITO- HEALTH WORK?



DIMENSIONS

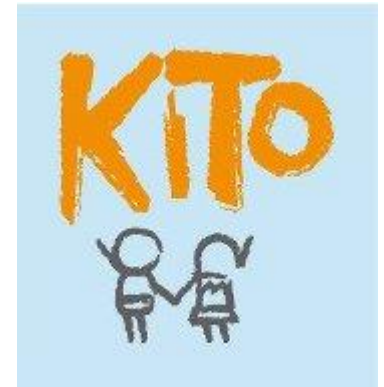
KITO-HEALTH



- 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 10½in) long
 - 2.896m (9ft 6⅛in) high
 - 2.438m (7ft 11⅝in) 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

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**

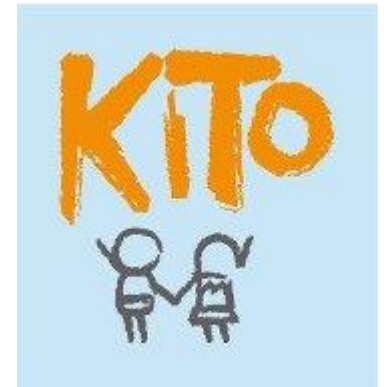
AUTOSUSTAINABILITY

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

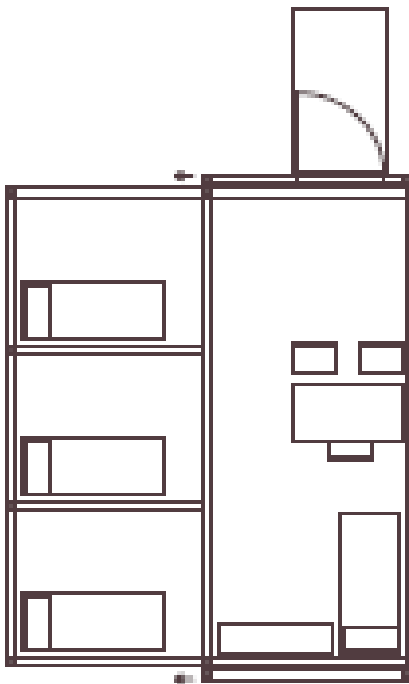
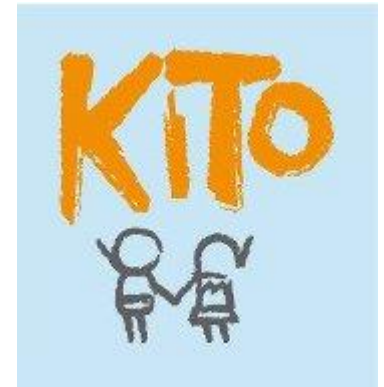


- Due to its innovative features one module costs approximately

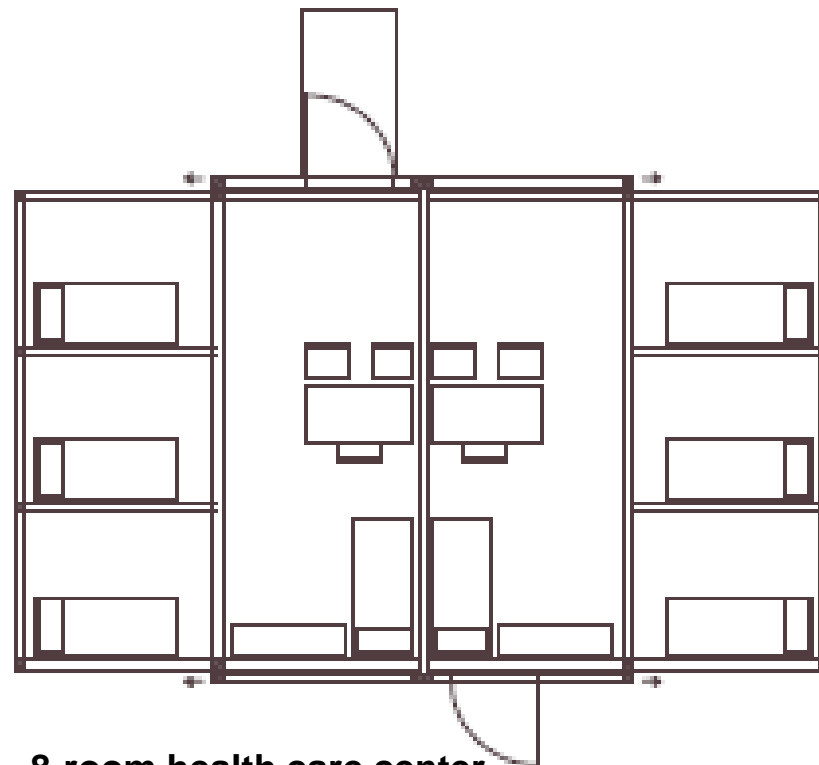
70,000 \$

- **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 beneficiary Local Government is the shipping cost from Europe

KITO-HEALTH IS A HEALTH CENTER...

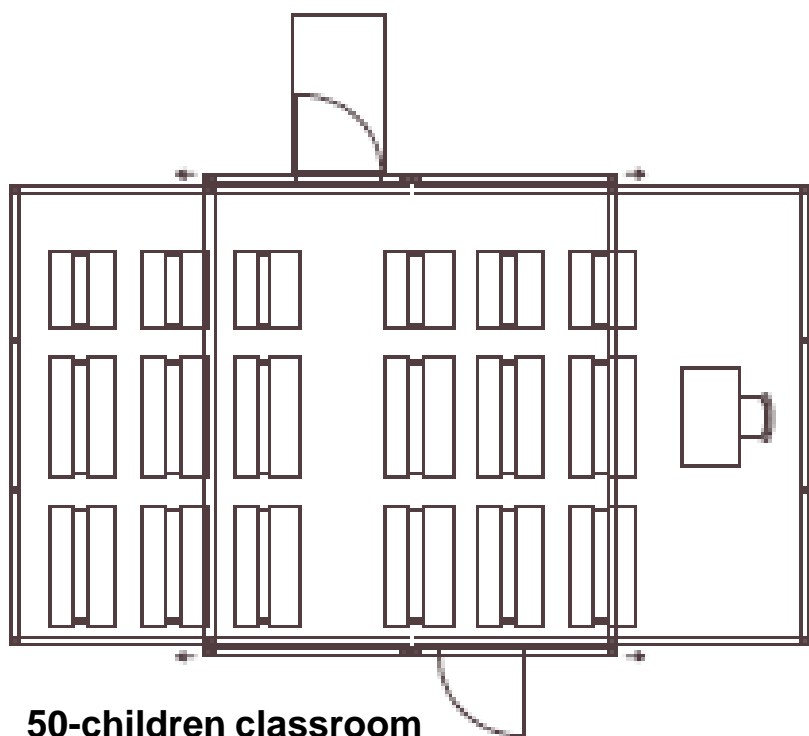


4-room health care center

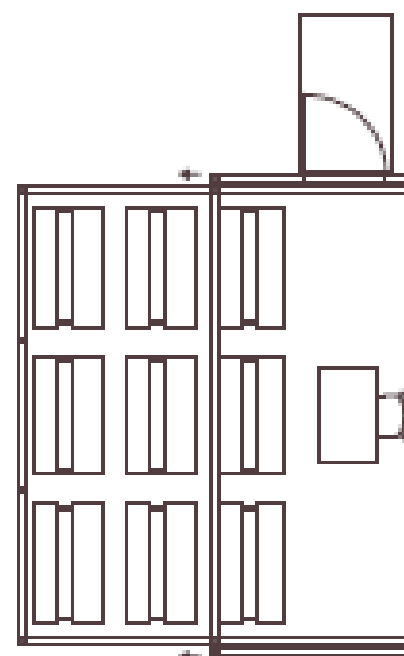


8-room health care center

BUT CAN BE ALSO USED AS SCHOOL



50-children classroom



25-children classroom

How KITO HEALTH IS MADE

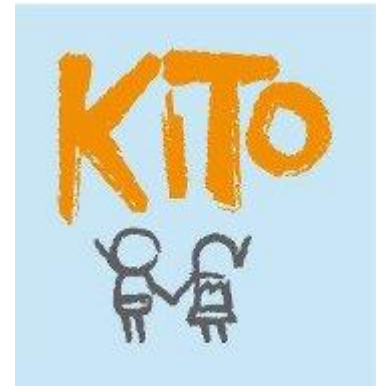


TECHNICAL DETAILS OF KITO-HEALTH



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

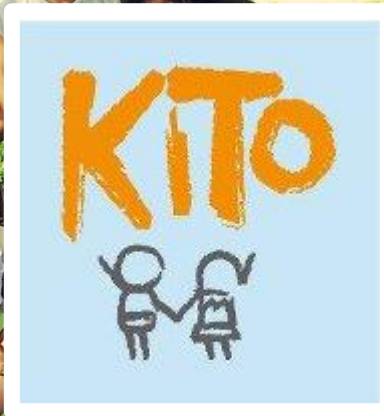
KITO-HEALTH ON SITE



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IMPROVING EDUCATION AND HEALTH IN EMERGENCY



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