

ideas for better
learning spaces
in emergency
and onwards

From chaos to oasis of learning

Education in emergency is a holistic approach, where learning and equal learners should be always in the center. The aim is balanced growth of awareness.

Empathy towards environment and resilient community makes up the roots.

The fruits are secured continuation of everyday life along with psychosocial support, inspiring and creative knowledge and life skills.

Education is delivered from accessible learning environment which serves the personal learning experience and promotes ideas to authorities and community.

Skills

Knowledge

Innovations

Sense of security

Learning and growing

- Learners
- Teachers and developing of teaching of all levels
- School management, authors and PTAs
- Built environment, for rehabilitation or reconstruction, from temporary to permanent
- Other facilities like WASH, school furniture or ICT

Empathy

- Equality
- Participatory
- Accessibility
- Sustainability
- Advocacy on right to education

Resilient community

- DRR
- LRRD and Life span planning
- Security and sensitivity to situation
- Child protection, health and support



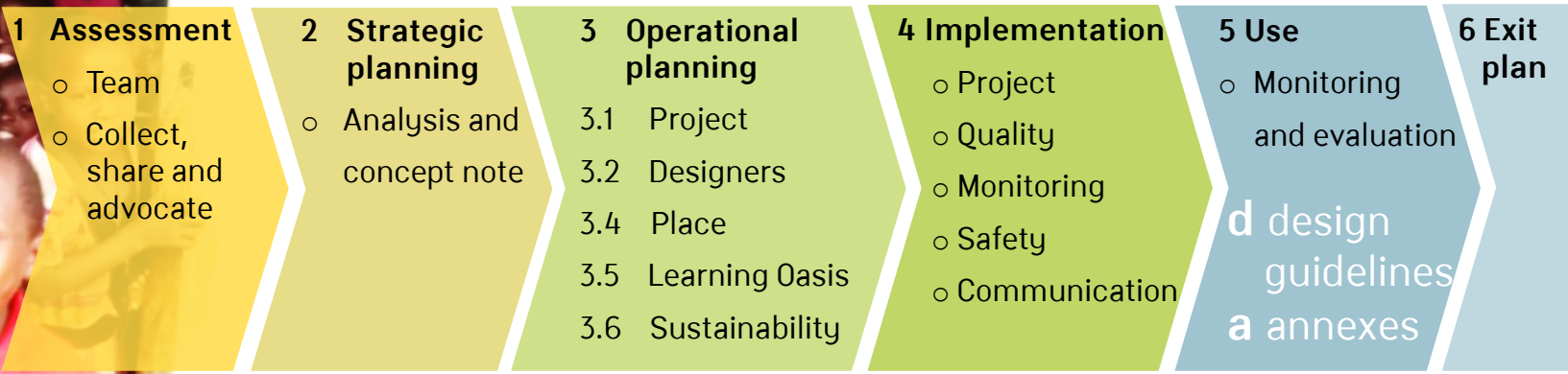
Repair and reconstruction of inspiring learning spaces in challenging situations require good planning regarding humanitarian principles, quality designs and systematic project management.

In post-disaster situation there are a lot of challenges and barriers, such as: inexperienced staff, lack of local norms, corruption, availability of resources and changing hazard frequency.

This manual guides through the construction process. Checklists and annexes form the guidelines that regard cross cutting issues and values of FCA and help to assess local situation.

Beside the basics manual provides ideas to create better, inspiring learning environment. Ideas of New learning environment are rising from Finnish school, but due to the modularity they can be adapted to different scales, locations and situations from emergency tents to permanent buildings.

The Guide's content is:



Please, be in touch. Lets create together!

Pasi Aaltonen, Learning Space Coordinator,
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Assessment team

In terms of construction should consist of:

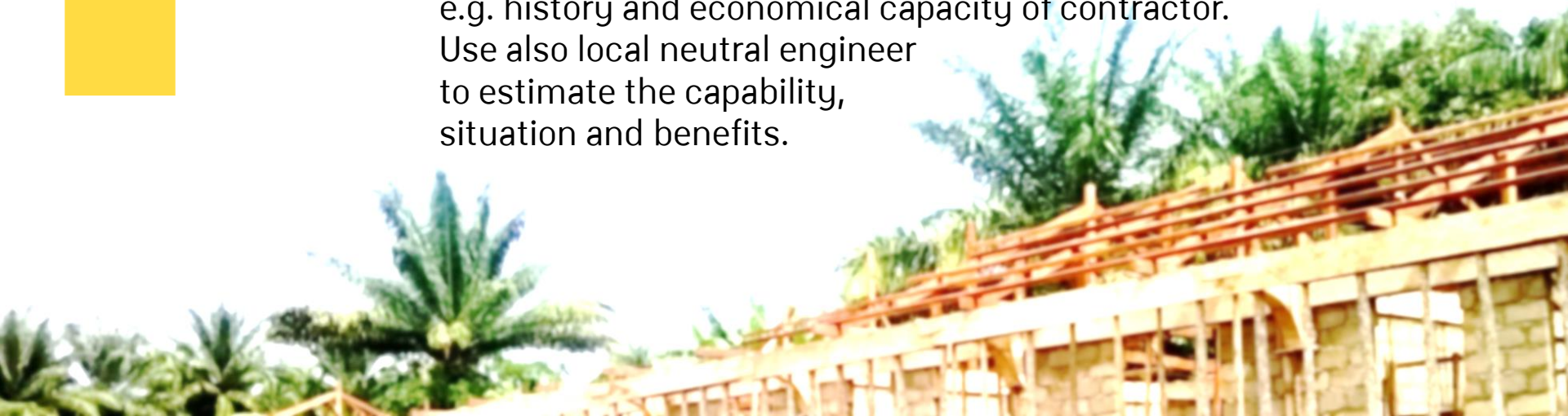
- Administrative person experienced with assessments,
- Education specialist familiar with local context,
- Construction professional, who understands emergency building
- Prefer local engineer, who knows the construction methods, regulations and availability of materials and labor.
- Staff behaviour and attitudes play an important role



Implementing

Regard at this point:

- Participation of local people and equality is main rule!
- Local experienced partner (prefer ACT members) is good solution if proved to be capable. Still there is a need to control that agreed quality is delivered and objectives achieved timely and with our principles.
- If choosing between contractor and own team, be critical and assess e.g. history and economical capacity of contractor.
Use also local neutral engineer to estimate the capability, situation and benefits.



Collect, share and advocate

Communicate continually with clusters, authors, locals and NGOs.

- Needs of local people including all groups and minorities
- Situation of human rights, child protection and education
- Hazards, threats, risks and ecological impacts and labor.

Recheck INEE, be aware of RSP, see ACT Alliance Emergency Assessment Guidelines, FCA humanitarian aid guidelines and tools and the Data sheet in the Annex 1.



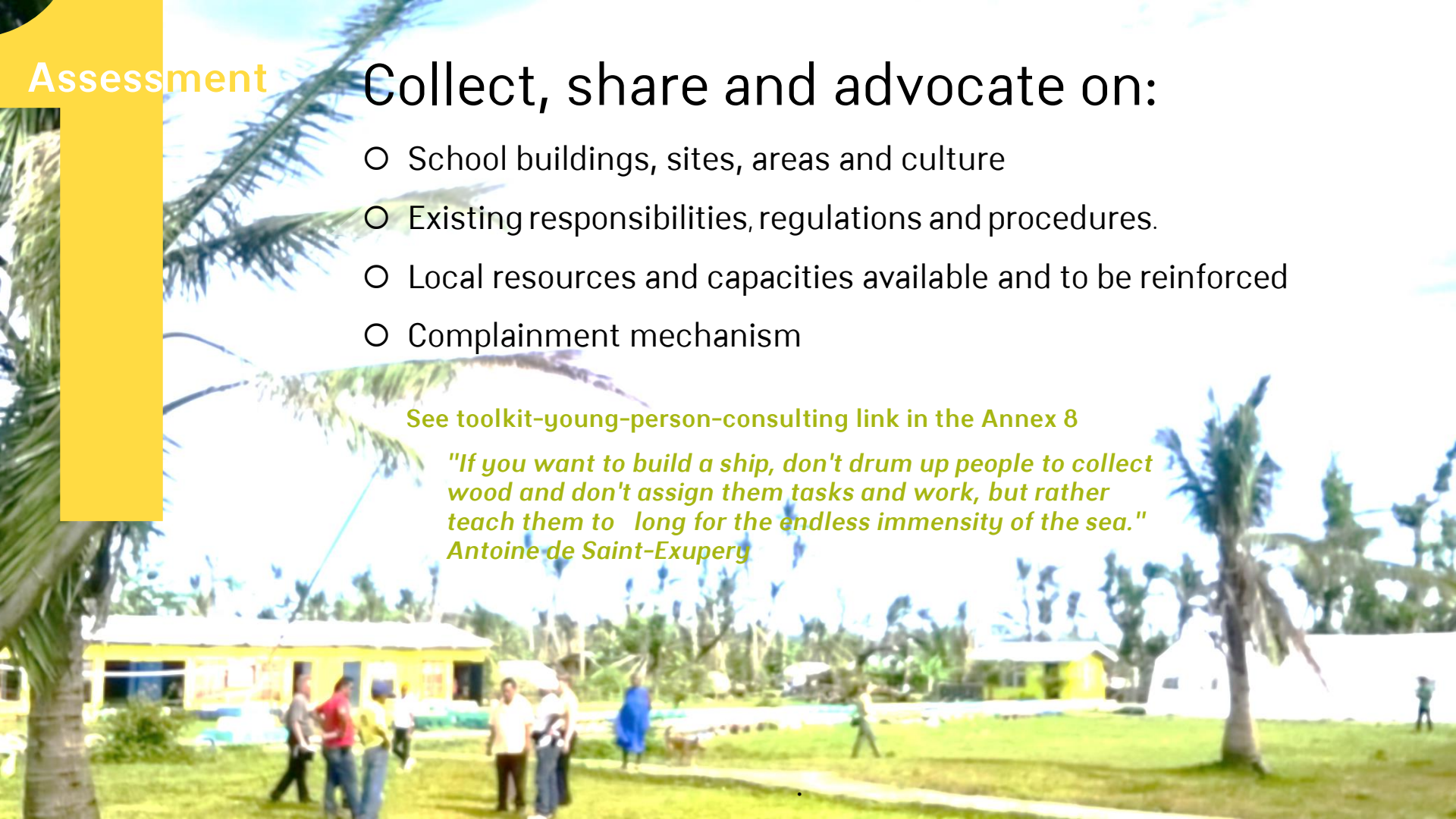
Assessment

Collect, share and advocate on:

- School buildings, sites, areas and culture
- Existing responsibilities, regulations and procedures.
- Local resources and capacities available and to be reinforced
- Complainment mechanism

See toolkit-young-person-consulting link in the Annex 8

*"If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea."
Antoine de Saint-Exupery*



Concept note

Team sends it to HQ. It is based on analysis that regards:

- Needs assessment and baseline data
- Outcomes and indicators, annex 2
- Budget sketch, annex 8
- Building method, scale, scope and link to education development. Wide effect or deeper in limited area?
- Participatory, cooperation and promotion of rights. Also complaint mechanism
- Exit strategy thinking LRRD
- Timelines and templates of HQ

Construction is a chance to support livelihood by hiring locals with cash for work principle.

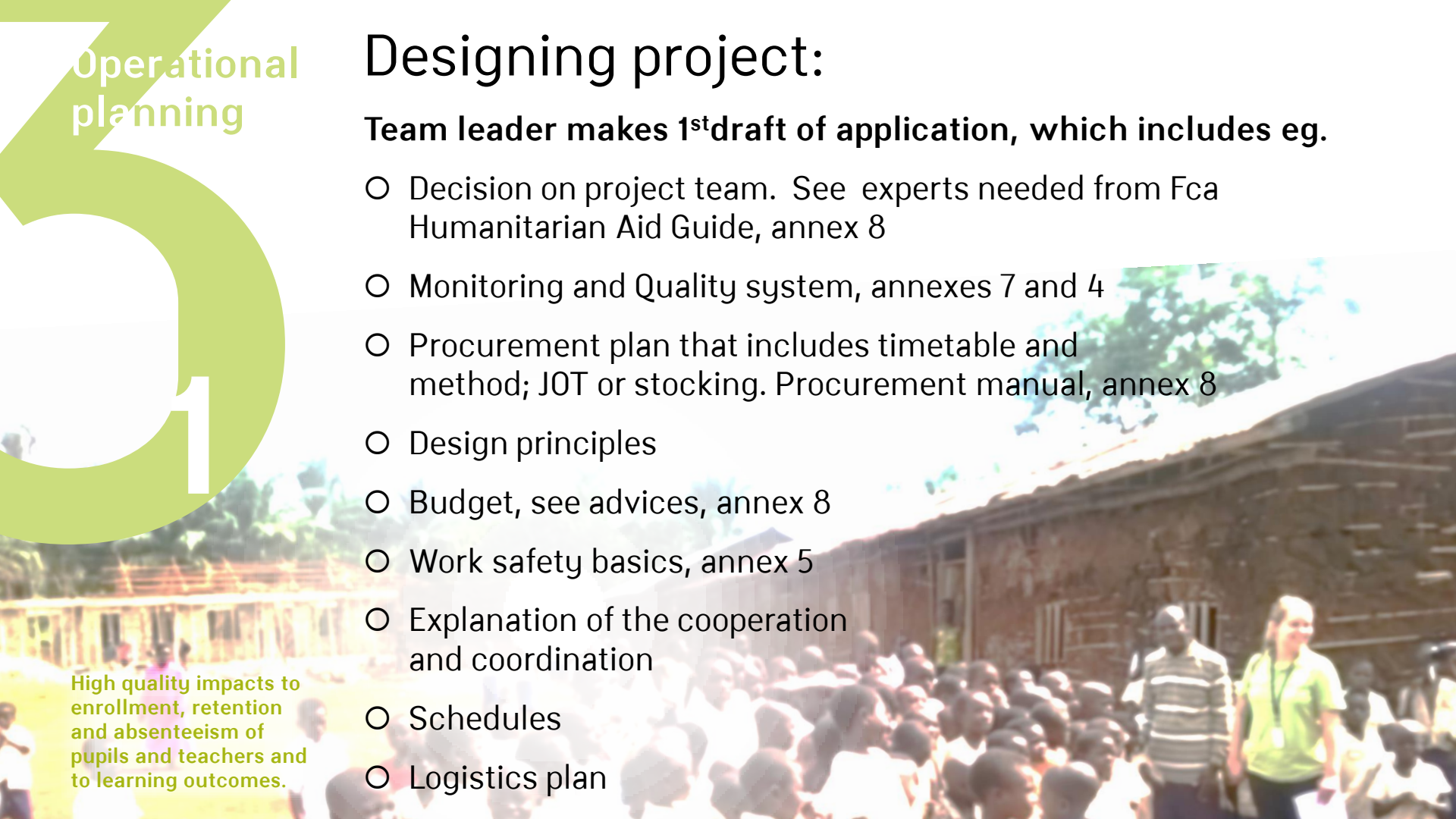
Building, painting, yard works, maintaining, nutrition, security etc. can offer new starts for livelihoods. Observe them and make initiatives!

Designing project:

Team leader makes 1st draft of application, which includes eg.

- Decision on project team. See experts needed from Fca Humanitarian Aid Guide, annex 8
- Monitoring and Quality system, annexes 7 and 4
- Procurement plan that includes timetable and method; JOT or stocking. Procurement manual, annex 8
- Design principles
- Budget, see advices, annex 8
- Work safety basics, annex 5
- Explanation of the cooperation and coordination
- Schedules
- Logistics plan

High quality impacts to enrollment, retention and absenteeism of pupils and teachers and to learning outcomes.



Project team: Structural designer

Implementing yourself or with partner, note that designer has to be able to design buildings and renovations that:

- Are hazard proof, safe and secured.
- Do no harm!
- Obey local building codes if they are of a higher standard than the international ones
- Teach locals to build better buildings



Operational planning

2

...and

- Will be sustainable in
 - materials,
 - transportation,
 - WASH and energy
- Can be built
 - in the humanitarian context,
 - with mainly local resources and
 - within existing budget in given time

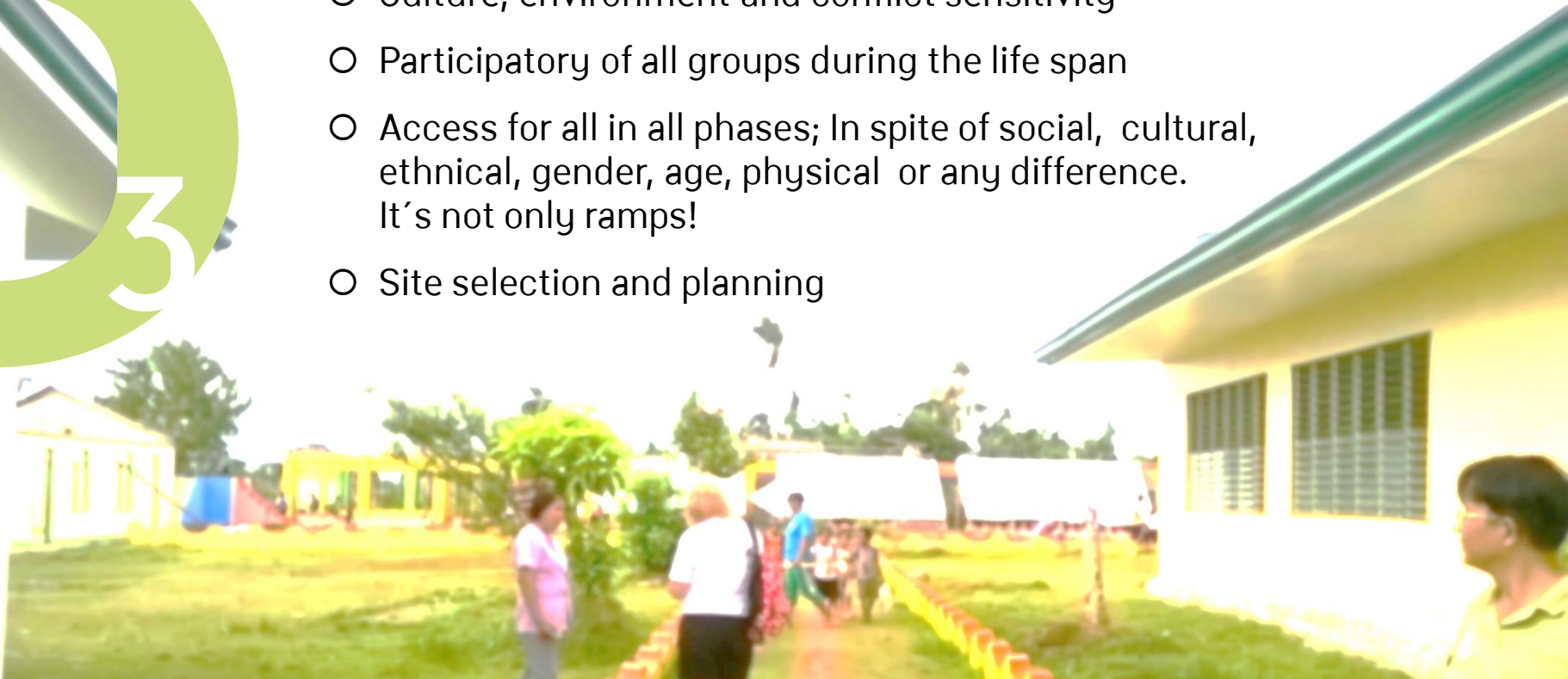
HQ helps to
tender the
designers.
When getting
designs, be
aware of some
basics,
see D9

Operational planning

Project team: **Architect**

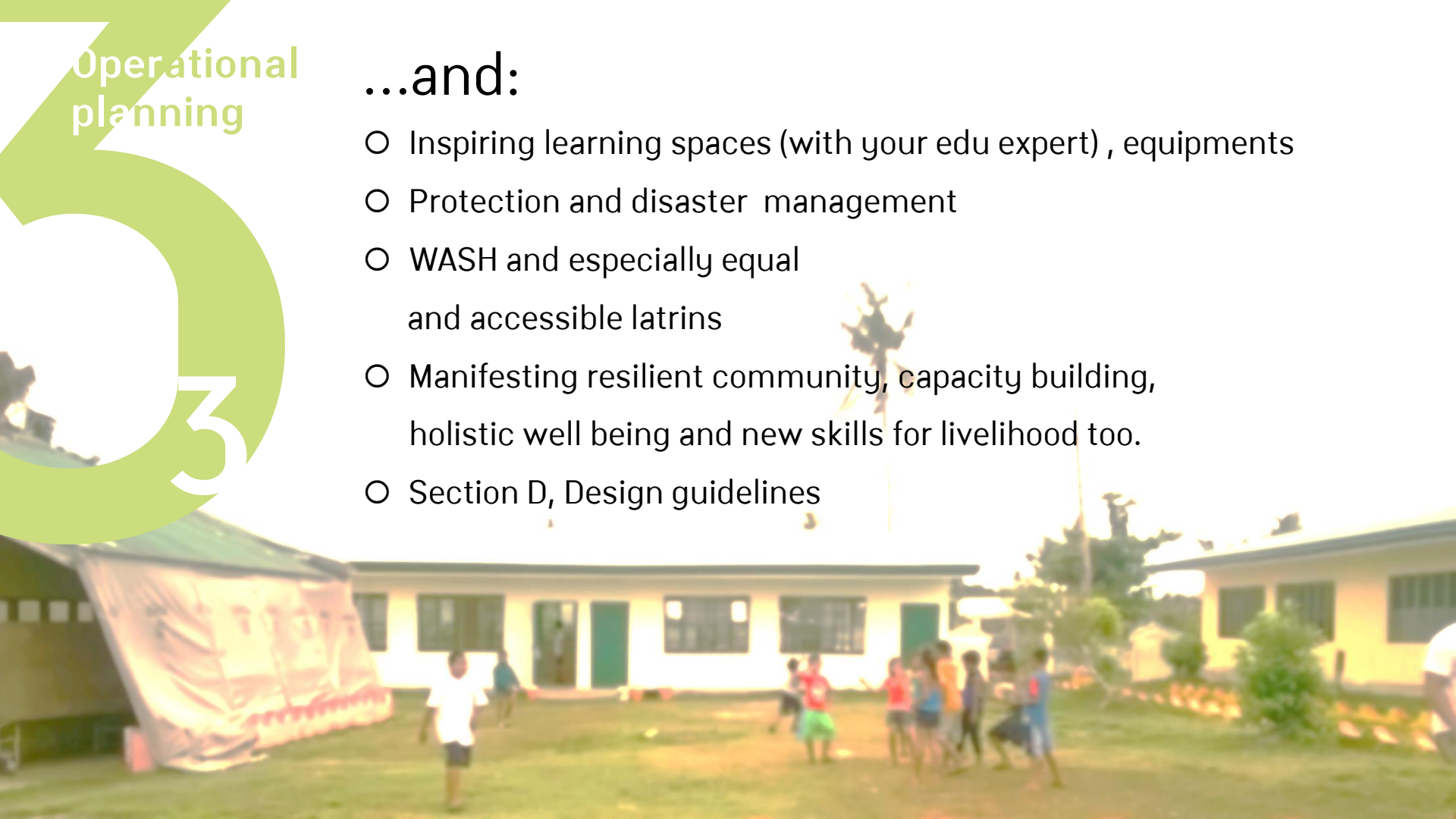
Prefer local professional and ensure that he considers:

- Culture, environment and conflict sensitivity
- Participatory of all groups during the life span
- Access for all in all phases; In spite of social, cultural, ethnical, gender, age, physical or any difference. It's not only ramps!
- Site selection and planning



...and:

- Inspiring learning spaces (with your edu expert) , equipments
- Protection and disaster management
- WASH and especially equal and accessible latrins
- Manifesting resilient community, capacity building, holistic well being and new skills for livelihood too.
- Section D, Design guidelines



Design principles: Choosing site

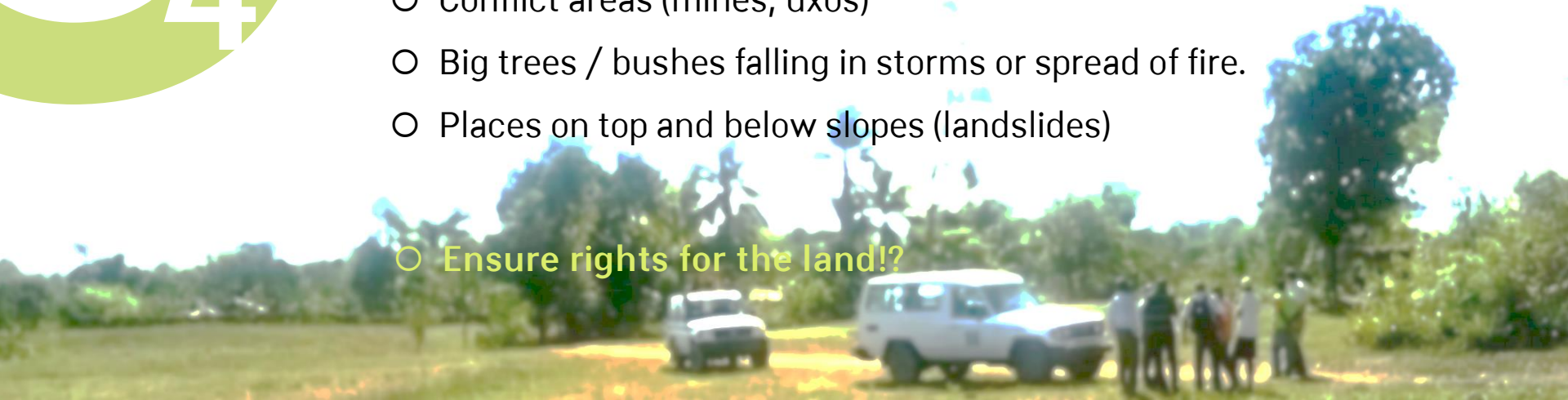
Avoid:

- Hurricane prone areas
- Open water
- Busy roads and intersections
- Industry
- Conflict areas (mines, uxos)
- Big trees / bushes falling in storms or spread of fire.
- Places on top and below slopes (landslides)

Build close to homes

- Max 3 km
- 0,5 km with disabilities
- Clear and safe road to school (+ for construction)

○ **Ensure rights for the land!?**



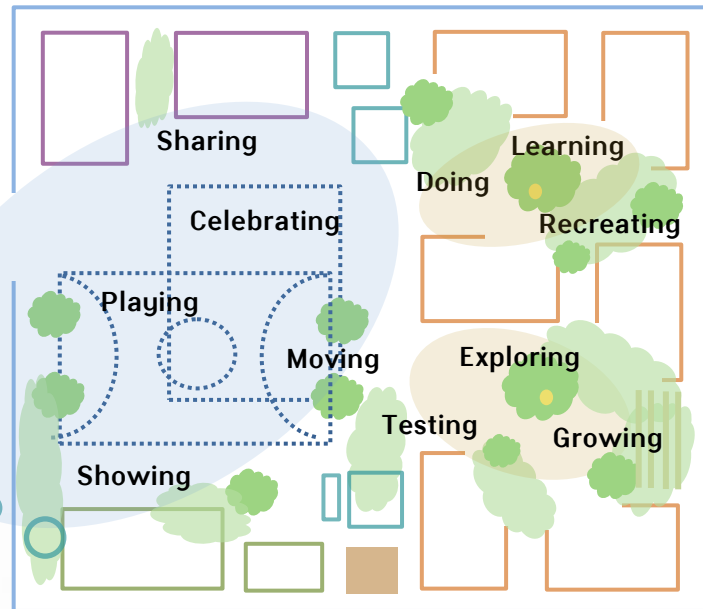
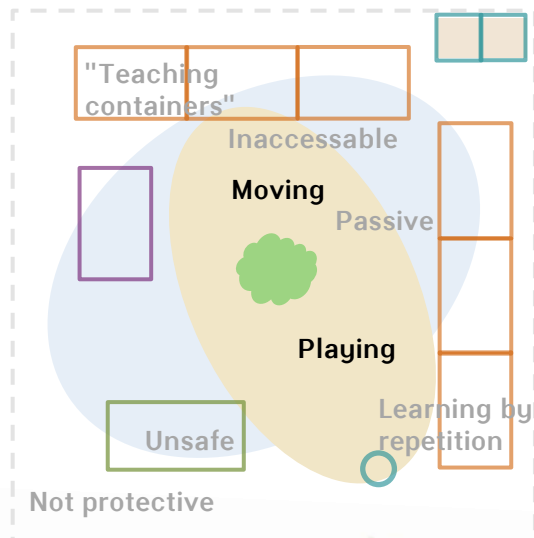
Operational planning

5

Design principles:

Ideas for New learning environment

From simple teacher guided education to personal learning experience. See more in Design guidelines D3 - D6



*"Education must shift from instruction to discovery
—to probing and exploration ..."* — Marshall McLuhan, educator and communications theorist

Design principles: Sustainability

balance it with availability, schedule and budget in emergency context.

Ocha and UNEP have Environment Marker – Guidance Note. This summary is on the CAME approach.

C CONTEXTUALISE projects given the environmental vulnerabilities

- Main environmental problems? (deforestation, water scarcity, other)?
- Sensitive/protected areas in the nearby?
- Natural resources traditionally used for? Gender factors?

A ASSESS projects for negative environmental impacts

- Direct impact on the local environment
- Indirect impact?

M MITIGATE impacts by modifying the project design

- How can impacts be reduced/ avoided?
- Consult with the local community for traditional and environmentally responsible solutions?
- Civil society organisations should be consulted, promoted and their capacities enhanced.
- Try to assess carbon foot print from materials, energy and transportation
- Regard aging and maintaining when choosing materials and methods
- Regard also waste management for the life span.

E ENHANCE environmental benefits in the project

- What other enhancement measures can be added to the project?
- Activities to be combined with other sectors?

Plastics
Metals
Steel
Cement
Lime
Clay
Wood
Natural fibres



foams, sheets, tarps
aluminium
bars, profiles, sheets
concrete, plaster
plaster
adobes, bricks
lumber, timber, boards
bunches, fabrics

shared by volume
+ transportation emissions

Implementation

- **Permits & contracts** by team, see templates, annex 8
- **Quality monitoring** is continuous task of site engineers
- **Work safety & security** should be paid special attention to
- **Monitoring and evaluation** by team, annex 7
- **Communication** in and out is performed by team
- **Manuals** in Annex 6 are upgraded by team during the process and given to the duty bearers of schools



○ **Monitoring and evaluation**

Team leader is responsible on actions and sends report to HQ.

See FCA, ACT and MFA guidelines about timeline and templates needed in different kind of cases.
Annex 7

○ **Maintain measures**

Maintaining and repairing according to the manual is duty of the local authorities or building owner



FCA team plans

LRRD-cycle, re-use or demolition

Executing deconstruction:

- Waste management and
- Site landscaping, see Resilient School Ground guide, annex 8, executed by local authorities or team, if self-implementing
- Safety secured by local engineer according to the safety plan

Closing:

- Evaluation Report (by team in case of own implementation)



Ground survey

Check site topography:

- Flat site
- Raised building place for floods
- Make a map

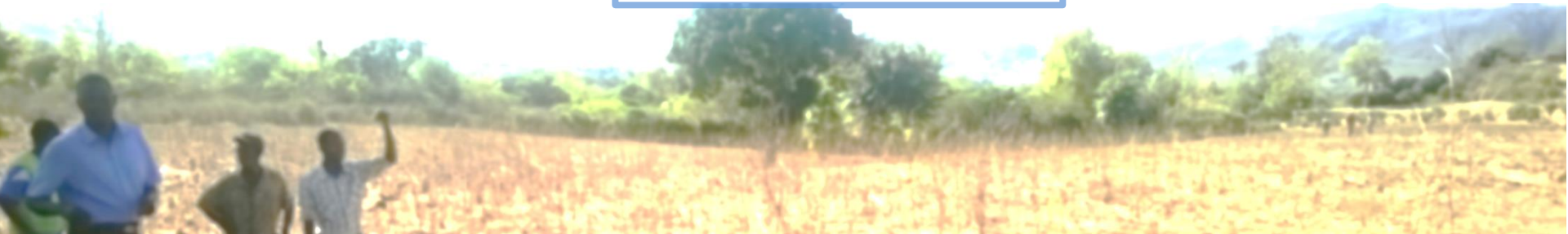
Prefer square area

Estimate area for:

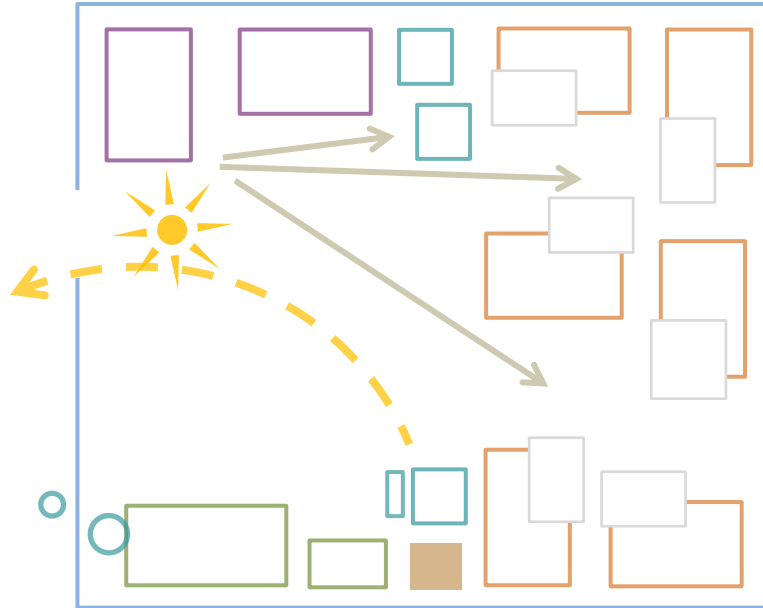
- Buildings needed
- Yards and gardens
- Public areas
- Sanitation
- Waste disposal

Check the ground and soil:

- Firm sub-soil (use professionals to check)
- Ground water below foundation for earthquakes.



Planning the site



Directions:



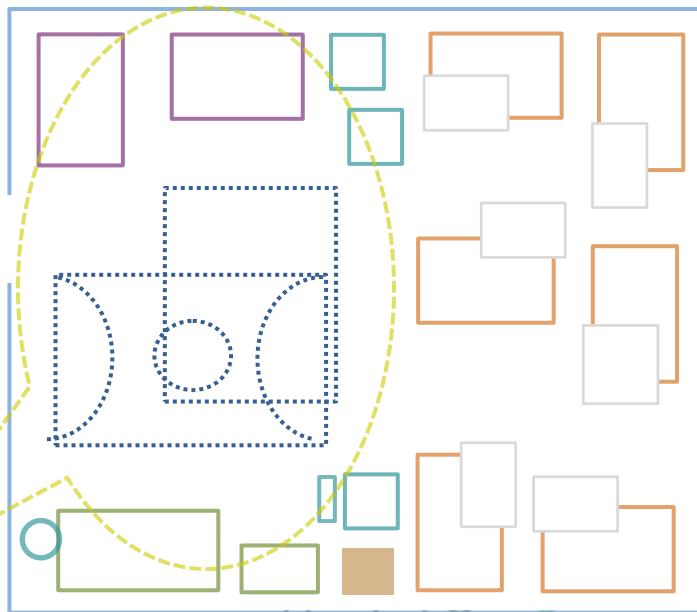
- Note winds, solar and water cycles.
- Reduce dazzle and heat, maximize light.

Safe and protective:

- Boundaries; fence, perimeter walls.
- Retaining walls if needed
- Views to latrines and yards



Placing functions



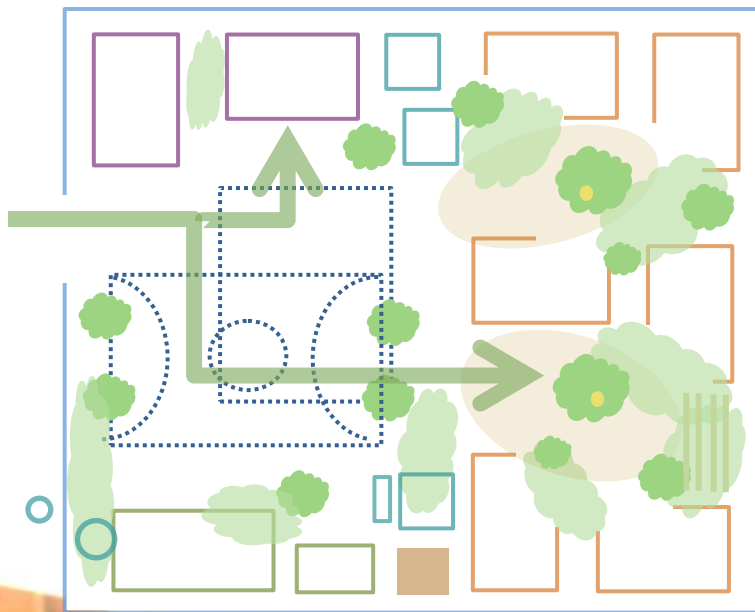
○ Resource Center

Estimate spaces needed, see INEE and local norms or similar:

- One classroom building with terrace is app. 10 x 7 m
- WASH (latrines, hand wash and drinking water),
- Library/ICT, special education and training rooms for teachers and admin, From local to global
- Kitchen/ canteen, guard/nurse, storage,
- Sports and events



Equal access to learning



Learning starts at the school path, which can turn into an adventure route in school.

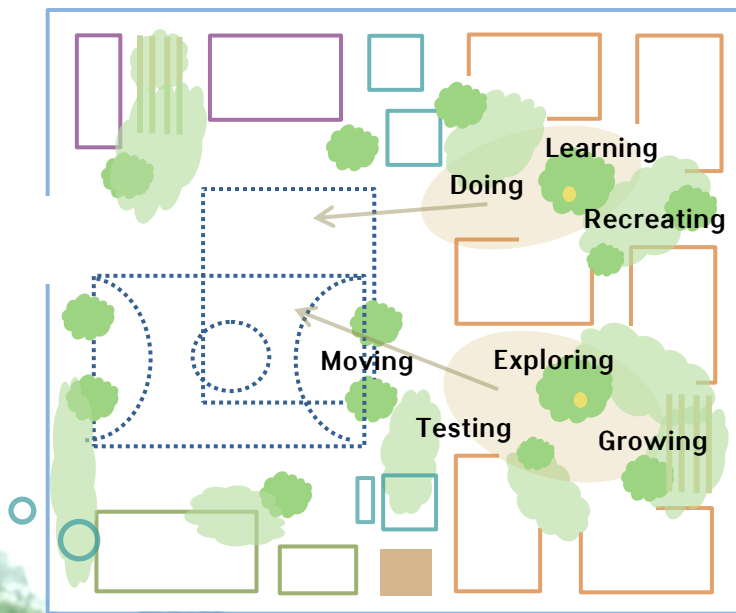
Make places accessible with sturdy surfaces and natural ramps.

Build places and functions with colors, contrasts and signs.

Note latrines. Easy to go and use for everyone.

Well built access advocates equality

Growing learning environment



Vegetation provides natural shade for outdoor activities and protect against erosion, noise and wind.

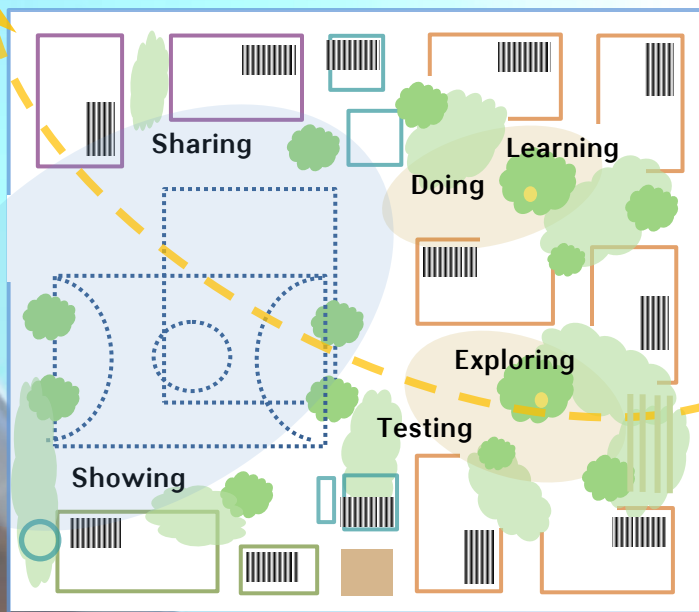
Gardens and yards offer inspiring places for brains and body. Also nutrition and livelihood possibilities.

They can be formed to be challenges and tasks of care for kids.

Find ideas from [Resilient School Ground guide, annex 8](#)

*"Logic will get you from A to B.
Imagination will take you everywhere."
— Albert Einstein, theoretical physicist*

Powering learning



Solar energy teaches ecology and opens universe via ICT

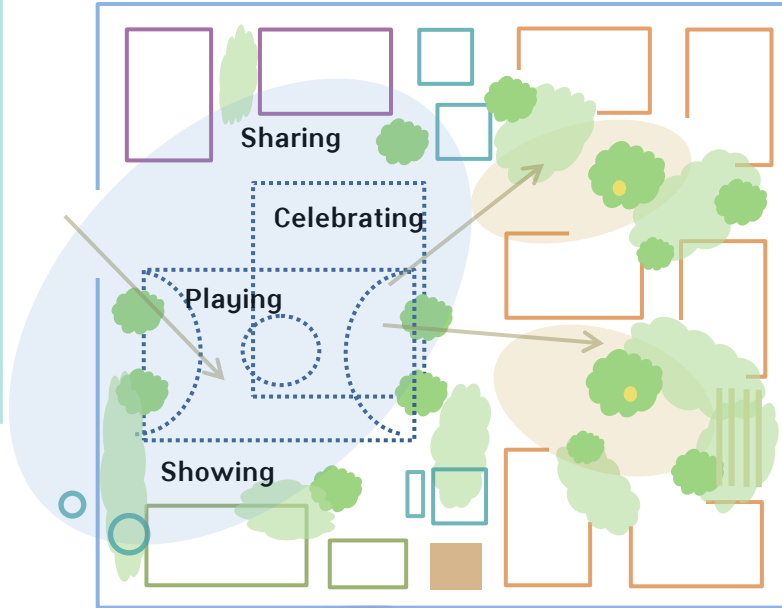
Outlet in the public place expands the influence

Showing kids good buildings systems and maintenance, raises resilient communities.

See more info on solar energy e.g. SELF -ngo, www.self.com and on environmental planning in the Resilient School Ground-guide, Annex 8

Ideas of Learning Oasis are based on thoughts behind i.a. Edukans Star-school, Third Teacher, Resilient School Ground-guide, Finnish school architecture like Saunalahti and Kirkkojärvi, pedagogies Steiner, Reggio Emilia and Montessori and of course FCA PMO, INEE and Sphere.

Revealing the results



Show, promote and advocate the new learning and resilient, accessible architecture.

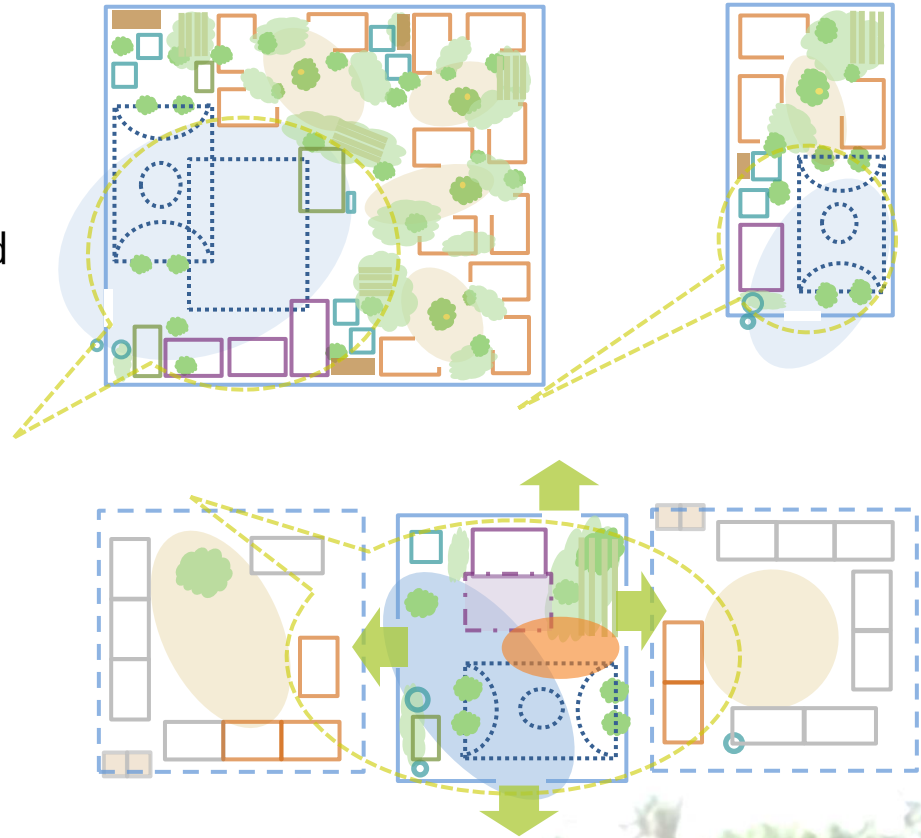
Public areas and spaces are for common social life and displaying and sharing the resources and knowledge.

If you can initiate school feeding, canteen manifest savings from good nutrition.



Adaptable

- to all architecture and any scale.
- Modules can be used separately or together.
- **Resource center can serve one new school or several existing ones.**
- Flexible for rehabilitation from temporary to permanent schools.



Designing the buildings.



Accessibility requires:

- Even platforms, ramps (easy self rolling, max 1:20),
- Handrails, non-skid surfaces, no thresholds
- Wide openings (free area min 900 mm),
- Visual contrasts with brightness, non-glare finish
- Acoustics is important for concentrating.
- Think the colors locally.

Windows extending low

- Work as safety exits.
- If winds are remarkable strong, use shutters.
- If rains are diagonal, concern lamellas.

See specific information in Accessibility Guide in Data bank, link in Annex 8

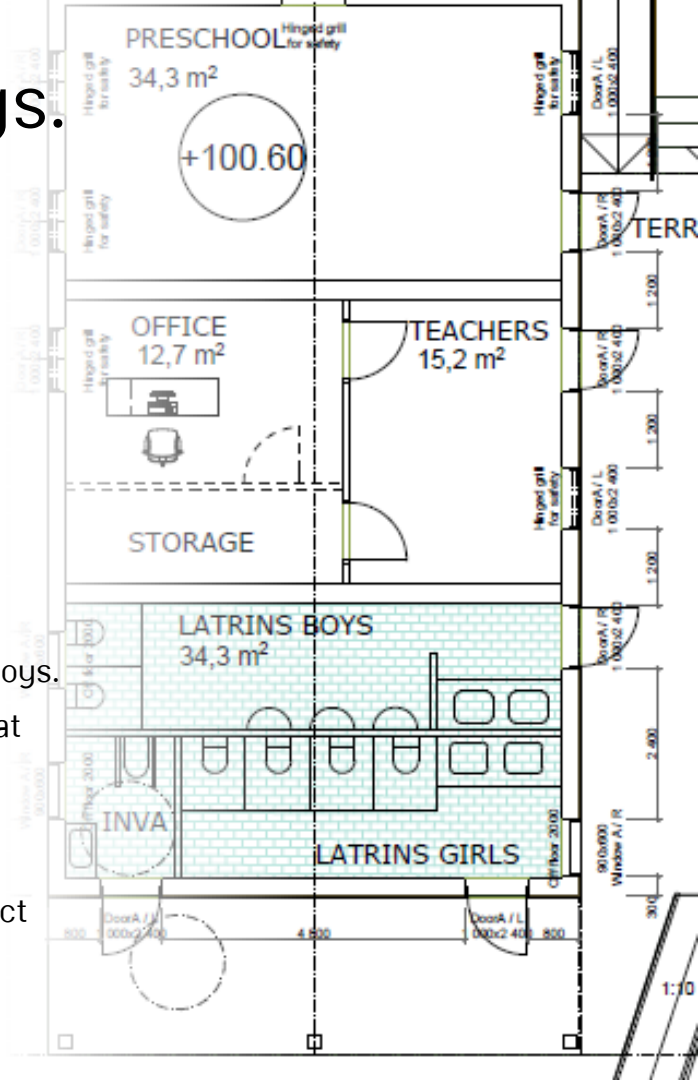
Designing the buildings.

Minimum classroom space / pupil

- In emergency situation is 1 m²,
- IIEP and the World Bank prefers 1.2 m²
- With wheelchairs 1.4 m².
- Square spaces are effective to use.

Sanitation facilities:

- Doors to be locked from inside,
- Separate spaces; seat amount 1/30 girls, 1/60 boys.
- Enough space (Ø1,5m) and aids like rails and seat support for disabled.
- Visually protective entrance, which can be monitored by teachers.
- Composting toilets are studied in our Haiti project and in some areas wash cluster have published localized guides. [See more on latrines, annex 8](#)



Designing the buildings.

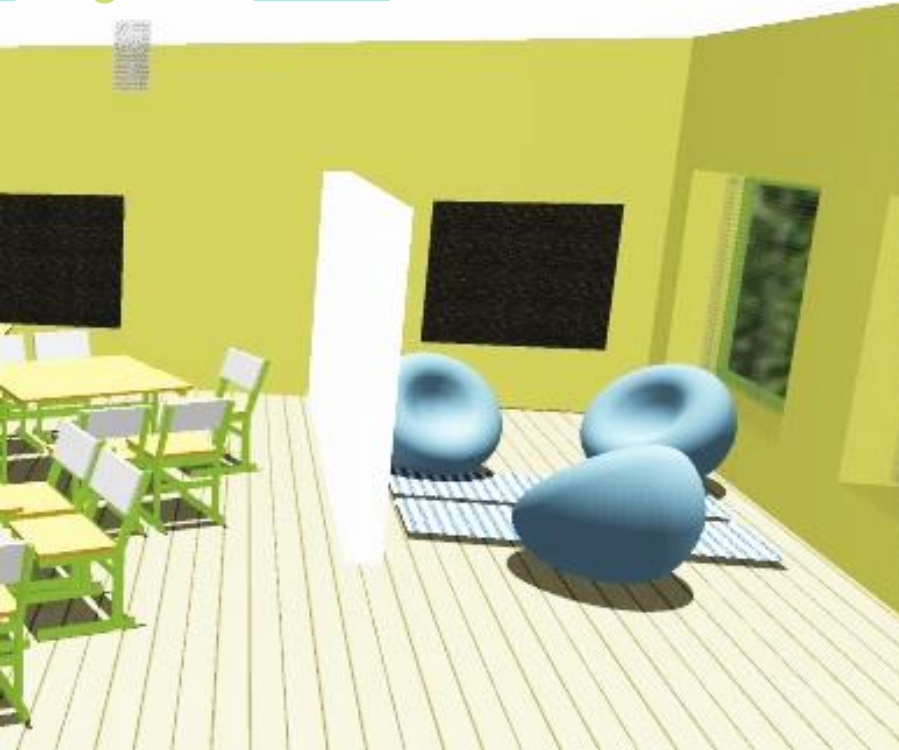
Inspiring and clear spaces

- Use indirect light from big windows. White ceilings reduce heat too.
- Prefer versatile spaces, mobile partition walls, uniform, easy to clean floors, and light colors.
- Use light, durable and flexible furniture.

See Annex 32.



Designing the buildings.



- Note effective ventilation by vents or windows on opposite walls.
- Locate noisy activities away from calm classrooms
- Use sound absorbing walls and false ceilings.
- Soft, cosy elements like carpets and pillows forms easily places for relaxed processing.
- Note the needs of pupils with disabilities.

Designing structures

Use professional structural designer, but to ensure quality, be aware of

some basic features in design:

- Simple building volumes.
Long ones need shear walls
- Prefer one story buildings
- Foundation should bear loads
and resist seismic and storm forces
- Rigid joints and connections are vital; ties,
screws, bolts and anchoring to the foundation.
- Diagonal support in every dry wall (wall boards
strengthen this), ductile structure deforms before fracturing.

Construction methods are mostly case related. See ideas in references in Annex 0



STRUCTURAL DETAIL

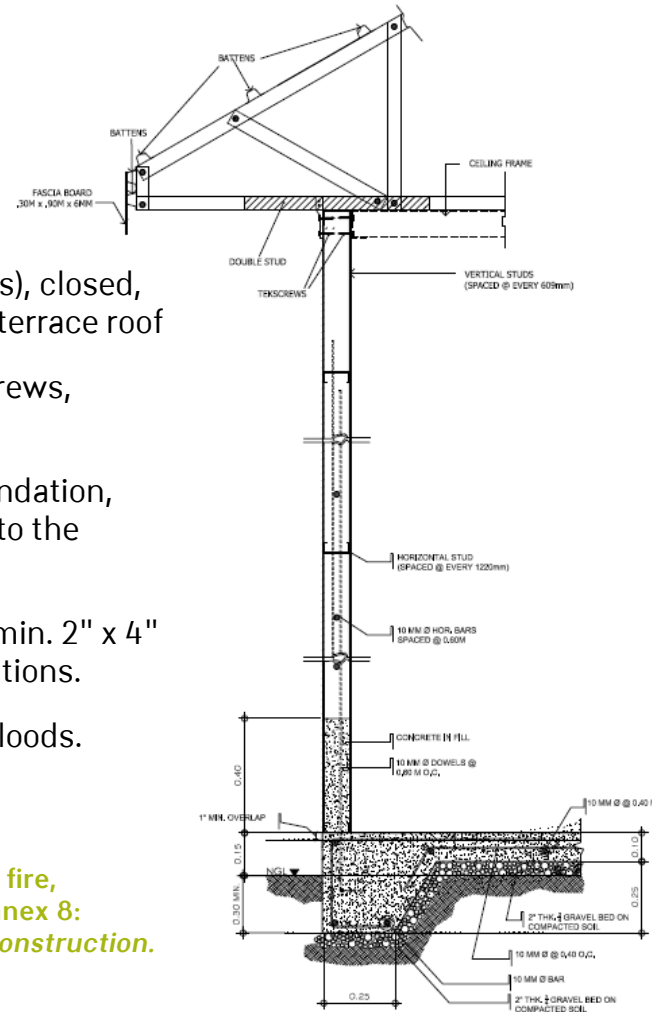


Structures

Be also aware of:

- For storms: pitched or hip roof (30...45 degrees), closed, short eaves, roof top well attached, separate terrace roof
- Proper trusses well attached with ties and screws, supported gable walls.
- Ring beams in concrete frame at levels of foundation, lintels and top of walls. Infill walls connected to the frame.
- Proper material thickness with wood frame, min. 2" x 4" or 600 mm, steel frame needs always calculations.
- Adequate anchoring and plinth level against floods.

Advice for prevention against natural hazards like fire, storms, earthquakes and landslides, see link in Annex 8:
○ *INEE Toolkit, Guidance Notes on Safer School Construction.*

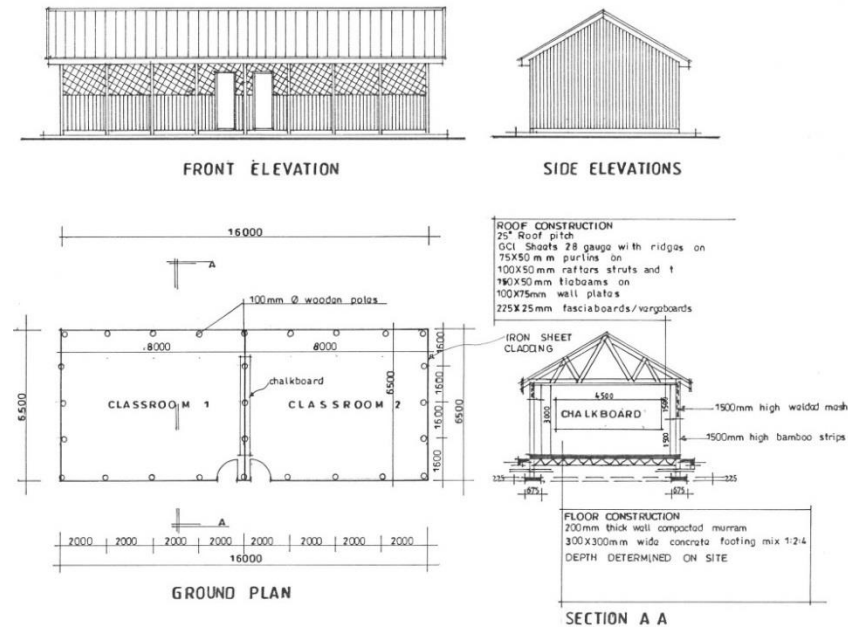


Annex 0 References

Example on TLS concept in South Sudan 2014.

Temporary building for IDPs. Due to transitional situation building is designed cost-effective. It uses local construction methods of wooden structures with clay walls and corrugated steel roof

- Floor is raised and concreted against flooding water and insects.
- Posts are treated with preservatives against humidity, pests and germs.



Annex 0 References

Example on structural concept Yolanda Relief operation in Philippines 2014.

Semi-temporary, normal
typhoon proof buildings.
Riveted steel profile frame,
attached to concrete base slab,
which is reinforced in edges.

- Fast to erect metal frame with upgradable mantle.
- Designed and produced by Nedsteel co from Manila.
- Assembling and complementing by local labor
- Permanent roof GI steel sheets. Tarp works as first aid.
- Walls are fiber cement boards in both sides.
- Walls can be upgraded into permanent with e.g. blocks



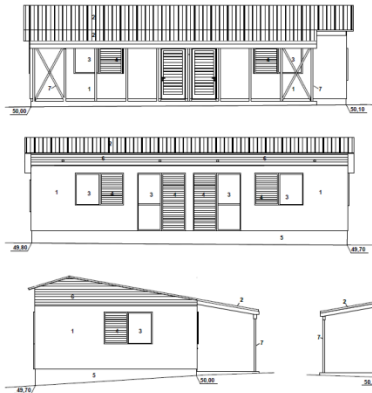
Annex 0 References

Example on permanent school in Haiti.

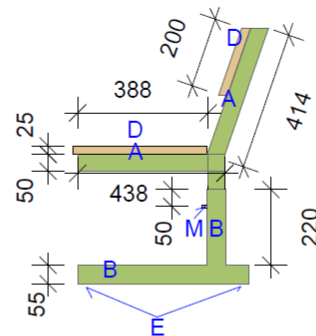
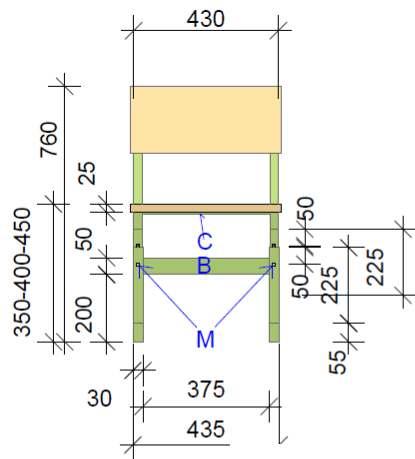
Earthquake and storm proof school designed according to Canadian standards.

School has solar panels for lighting and waste treatment to produce biogas for cooking.

- Terrace roofs are separate structures.
- Proper metal doors and window shutters protect well.
- White ceilings and light colors make comfort and easy learning space



Annex 1 Furniture

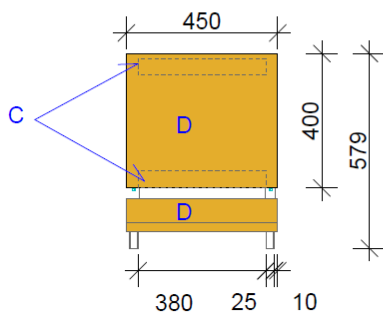


Materials:

- A Steel tube square 25 x 50 mm (or else to fit into the bigger tube), wall 2 mm, degreased and painted with enamel light green twice. This tube has 3 holes Ø10mm, distance 50 mm from end and each other. holes are for adjusting height with bolts screwed into the nuts in the lower legs
- B Steel tube square 30 x 55 mm, wall 2 mm, degreased and painted with enamel light green twice
- C Steel plate 20 mm x 2 mm, length
- D Board plywood 15 mm or wood 20 mm, round corners sanded and painted with enamel off white twice,
- DJ boards are ached with screws from back through steel plates
- E Plastic badges below feet in front and end
- J Tube joints welded around
- M Nuts M10 welded into the legs. Legs with holes at the nut. Bolts and nuts 10 M.

Flexible furniture

are designed for production conditions in Haiti. They can be adjusted by height for children from preschool to high school.

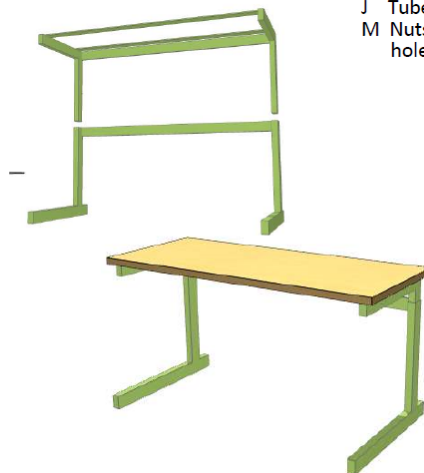
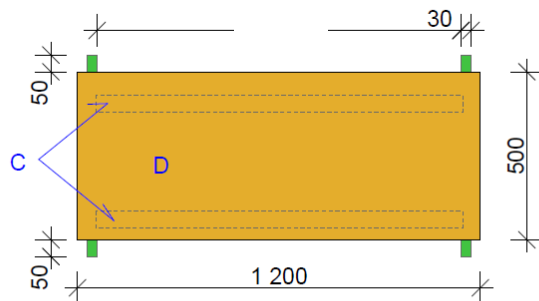
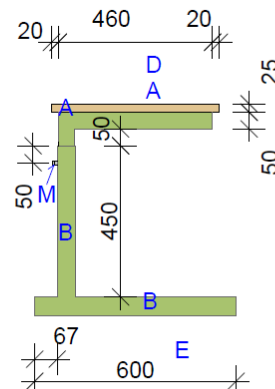
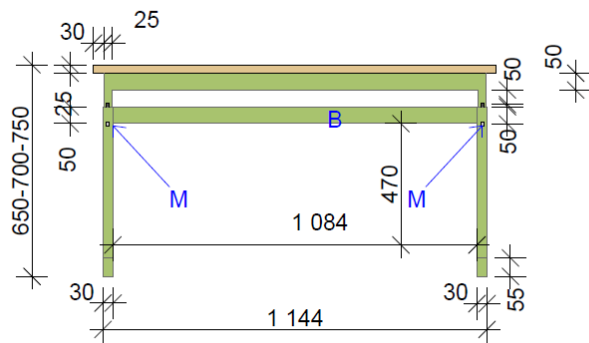
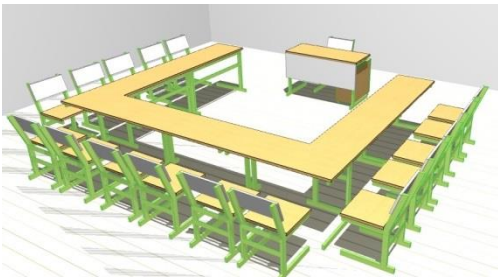


School chair FCA
Pasi Aaltonen,
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7 October 2014

Annex 1 Furniture

Flexible furniture

Size of the pieces is planned to help forming them for different kind of working methods like groups.



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School table FCA
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7 October 2014

Annex 2 Assessment

Annex 1: Assessment data sheet

Annex 1: Assessment data sheet			Plan methods like: MIRA and other international reports; Cluster meetings > interviews, local reports; Target area visits > local authors, PTAs and pupils > photos, interviews														
Context	Area and place? Climate?														Set simple indicators for actions	Meet? Yes / No	Source (Edu govt./M ayor /Village leader /principal /pupils /teacher /parents /other
	Special needs in building EIE premises?																
	Other needs?																
	Learning Oasis activities and spaces existing alike? What preventing																
	How many schools affected?		Classrooms ruined?														
People	Damages / school:																
	How to prevent?																
Resources available	How many in the village?		How many without school?														
Methods used locally	Village people																
Materials like concrete, steel rods, plywood, timber, blocks, roof GS	What kind?		Where?														
Labour like construction co? cash for work people? individual professionals consultants?	Transport?		Costs?														
Other for construction like water? energy? accommodation and food?	traditional / natural?																
WASH situation / needs?	Labour like construction co?																
Sites possible for TLS?	cash for work people?																
Norms, regulations, standards	individual professionals consultants?																
Culture and traditional architecture	Other for construction like water?																
	energy?																
	accommodation and food?																
	situation / needs?																
	Name (district/commune/village)		On the map? Size? Directions? Winds?	Shape?	Flat / slope?	Soil type?	Road?	Ekologic?	Access?	DRR?							Use local construction professional as consultant
	Find out, list or collect:																
	Authors inspecting?																
	What have to be kept?																
	What good as regarding DRR?		LE?				ELO?				AFA?						
	What easy to build better ?																



Annex 3

Logic frame work

Please note: the logical framework may be modified freely, Specific objectives should however only contain one key indicator for the action.

Principal Objective should be general objective contributing to the overall humanitarian situation and usually not achievable by the action alone

Specific Objective is the principal achievable objective of the action

Results are "sub objectives" contributing to the specific objective

Title of the Action			
Principal Objective			
Specific Objective	Indicator for Specific Objective	Means of Verification	Risks and Assumptions
Result 1	Indicator for Result 1.	Means of Verification	
Result 2	Indicator for Result 2.	Means of Verification	
Result 3	Indicator for Result 3.	Means of Verification	
Activities Result 1.			
Activities Result 2.			
Activities Result 3.			

Annex 4 Quality system

Reasonable and unambiguous quality plan could be like this:

- Check the documents with contractor / partner / engineers / labor: drawings, descriptions and contracts and make sure that the parties understand the content and strived quality level. Use examples and references if needed:
- Measurement tolerances in main dimensions, cross measures, details, joints etc. Define also levels and dimensions not clear in the drawings, e.g. floor level, jambs' vertical planes etc.
- Define clear phases and feasible milestones for the project. Explain quality checks according to the phases. E.g. if roof is designed to straight, it's going to be built to straight and that will be checked.
- Express clearly the approval system and acceptance-based payments. Notice to mention that counterparty have certain time to correct deviations and payments are not paid before acceptance.
- Agree the timetable with checks. Use short periods in order to ensure the performance depending on the liquidity.
- Make a document of the quality system, phases and acceptance—payment procedure.
- Use the plan and make minutes every time you meet and discuss something on project at site.
- Ask signatures to ensure documents are valid when submitted afterwards.
- If this does not work, use penalty fees or exchange people!
- Act decisively and don't give up!

Annex 5 Work safety and security

Safety and security plan check list

Personal safety:

- Incisions and chemicals, dust and gas...
 - Cloves, respirators, glasses and ear plugs
- People standing on...
 - Clearance and protective footwear
- People felling from...
 - Fences, scaffolding, harnesses or ropes
- Objects dropping on..
 - Protective helmets

Protection:

- Nominate the person in charge.
- Keep safety gears and equipment available to all.
- Define all the risks and threats together.
- Prepare safety plan and procedures in case of emergency.
- Take safety trainings and print plan with rules for the visible.
- Secure the surrounding: Use construction site fence to prevent outsiders' entry.



Annex 61

Building manual

Building Manual

Fill along construction! Copy a sheet for the property management! Attach other documents with this manual like drawings, product specifications, warranty certificates and official documents like building permit if any.

Basic and contact details

Name and locality of the property _____

contact information of users _____

owner _____

Surface materials and treatments

	Material	type / finish	color
Exterior walls	_____	_____	_____
Interior walls	_____	_____	_____
Windows	_____	_____	_____
Doors	_____	_____	_____
Floors	_____	_____	_____
Roof	_____	_____	_____
Ceiling	_____	_____	_____
Cutters	_____	_____	_____



Maintenance Calendar

Maintenance calendar shows the care and maintenance periods of building components

Which part	What to do	/ other repairs	/ costs	/ when	/ who	/ Done, date, signature
Roof & cutters	-----	/	-----	/	-----	/
Walls	-----	/	-----	/	-----	/
Plinth & foundation	-----	/	-----	/	-----	/
Stairs & railings	-----	/	-----	/	-----	/
Windows & doors	-----	/	-----	/	-----	/
Rain water collecting	-----	/	-----	/	-----	/
Solar system	-----	/	-----	/	-----	/
Elctrical devices	-----	/	-----	/	-----	/
Plumbing	-----	/	-----	/	-----	/
Interior surfaces	-----	/	-----	/	-----	/
Black board & furniture	-----	/	-----	/	-----	/
	-----	/	-----	/	-----	/

Annex 63

DRR

Check list

Disaster risk reduction:

Identified threats:

	what to do	/	when to train	/	what else needed	/	done; day, sign.
1.	_____	/	_____	/	_____	/	_____
2.	_____	/	_____	/	_____	/	_____
3.	_____	/	_____	/	_____	/	_____
4.	_____	/	_____	/	_____	/	_____
5.	_____	/	_____	/	_____	/	_____
6.	_____	/	_____	/	_____	/	_____
7.	_____	/	_____	/	_____	/	_____
8.	_____	/	_____	/	_____	/	_____
9.	_____	/	_____	/	_____	/	_____

In case of emergency:

Evacuation plan:

- ☐ identify a route to a safe place where children can be taken if any hazard materialize or violent outbursts happen, so the safety of children is not compromised.
- ☐ _____
- ☐ Draw a simple map of school area and plot the gathering place and the asylum / shelter

Annex 7 Monitor and evaluati

See FCA, ACT and MFA guidelines about timeline and templates needed in different kind of cases. More online, e.g. ALNAP

This is for illustrative purposes only.

[illegible]

Assessment:

Toolkit-young-person-consulting <http://kuapeli/hankehallinto/Pages/Databank/default.aspx>

Procurement, contracts and budget:

Procurement manual (contract and other templates) and Budgeting guide: <http://kuapeli/Documents1/taloushallinto/205/Forms/>

FCA Humanitarian Aid Guide

<http://kuapeli/hankehallinto/Pages/Databank/default.aspx>

Terms of reference:

Evaluation of the Yolanda Relief-operation *Rethinking School Ground* –guide to design educational landscapes

<http://kuapeli/hankehallinto/Pages/Databank/default.aspx>

Environment:

Resilient School Ground-guide <http://kuapeli/hankehallinto/Pages/Databank/default.aspx>

CAME: http://www.unep.org/disastersandconflicts/Portals/155/countries/sudan/pdf/Environmental_Marker_2014_short_guidance.pdf

Accessibility Design Guide,

Australian government, AusAID: <http://aid.dfat.gov.au/aidissues/did/Documents/accessibility-design-guide>.

CBM: Accessibility Manual (http://www.cbm.org/article/downloads/54741/CBM_Accessibility_Manual.pdf)

Guide to Sanitation 2010, Global Dry Toilet ASSOCIATION of Finland, Tampere UAS

http://www.huussi.net/wp-content/uploads/2013/06/Guide_to_Sanitation_2010_final.pdf

Latrine Design Standards and Technical Options for South Sudan

<http://kuapeli/hankehallinto/Pages/Databank/default.aspx>

Constructing Child Accessible WASH Technical Sheets

<http://sheltercentre.org/library/accessibility-emergency-technical-sheets-wash-infrastructure-pakistan>

INEE Toolkit , e.g. Guidance Notes on Safer School Construction and contextualized standards

<http://toolkit.ineesite.org/toolkit/Toolkit.php?PostID=1042> <http://toolkit.ineesite.org/toolkit/Toolkit.php?PostID=1154>

INEE

http://www.preventionweb.net/files/14414_MinimumStandardsEnglish20101.pdf

INEE Pocket Guide to Inclusive Education in Emergencies

<http://www.ineesite.org/en/materials/inee-pocket-guide-to-inclusive-education-in-emergencies>

South Sudan Minimum Standards for Education in Emergencies

http://www.ineesite.org/uploads/files/resources/South_Sudan_Minimum_Standards_4th_copy.pdf

SPHERE

<http://www.sphereproject.org/>

UNHCR: Safe Schools and Learning Environments

<http://www.unhcr.org/refworld/pdfid/469200e82.pdf>

UNICEF Child Friendly School Manual:

<http://www.scribd.com/doc/28407318/Child-Friendly-Schools-Manual>

Annex 82 Links

UNICEF Basic education and gender equality

http://www.unicef.org/education/index_56204.html

UNICEF A good example on Child Friendly School Infrastructure from Rwanda

http://www.unicef.org/education/files/Rwanda_CFS_guidelines.pdf

UNICEF Constructing Child Eco friendly Schools in Madagascar

<http://www.scribd.com/doc/60192112/Constructing-Child-Eco-friendly-Schools-in-Madagascar>

UNICEF School Construction Strategies for Universal Primary Education in Africa

<https://openknowledge.worldbank.org/bitstream/handle/10986/2637/488980PUB0prim1010official0Use0Only1.pdf?sequence=1>

Save the Children: reports and publications

http://www.savethechildren.org/site/c.8rKLIXMG14E/b.6153061/k.7E4A/Publications_and_Reports.htm

Unicef Compendium, Transitional learning spaces 2011

http://www.educationandtransition.org/wp-content/uploads/2007/04/TLS_compendium.pdf

Unicef Compendium, Transitional learning spaces 2013

http://www.educationandtransition.org/wp-content/uploads/2007/04/TLS_2013A1.pdf

UNDP Technical guide for debris management

http://www.ht.undp.org/content/dam/haiti/docs/reduction%20de%20la%20pauvrete/UNDP_HT_Debris-Guide%20Interactive%20EN%20Final-20130904.pdf

DRC Guide de constructions scolaires version livre-1[1]

<http://www.eduquepsp.cd/guide-de-constructions-scolaires-a-moindre-cout.html>

PreventionWeb.net - a project of UNISDR, (UN Disaster Reduction Secretariat')

<http://www.preventionweb.net/english/submit/>

Act Alliance publications: An ounce of prevention etc:

<http://www.actalliance.org/resources/publications/14-650-J1900%20ACT%20Alliance%20DRR%20Report%20AW%20web.pdf/> view,

<http://www.actalliance.org/resources/policies-and-guidelines>

Research on school design

<http://www.designshare.com/Research/Washor/Pedagogy%20and%20Facilities.pdf>

Shelter safety handbook, IFRC

<http://www.ifrc.org/PageFiles/95526/publications/305400-Shelter%20safety%20handbook-EN-LR.pdf>

Safety standards Manual for schools in Kenya Church World Service

<http://http://www.education.go.ke/Documents.aspx?docID=561>

Innovative Pedagogy and School Facilities, Elliot Washor/DesignShare.com

<http://www.designshare.com/research/washor/pedagogy%20and%20facilities.pdf>

Rainwater harvesting:

http://www.rainwatercambodia.org/index.php?option=com_content&view=article&id=22&Itemid=129