Establishing a school

At a glance
This tool helps you think through what is needed when planning or building a school.

- Confirm the need and whose responsibility it is to establish the school.
- Consult all the relevant people including families.
- Consider what size the school needs to be and what facilities are needed – could the school use existing buildings?
- Plan for good governance and maintenance of the school, and how it will be funded.
- Ensure careful planning of location and layout.
- Focus on the quality of learning - develop an inclusive curriculum and facilities.
- Target those in greatest need.
- Prioritise child protection.
- Ensure well-designed services and infrastructure.
- If you are building a school then you need good design, quality construction, independent construction supervision and adequate funding. Think about safety and comfort as you plan the design.

Why use this tool?
This tool provides guidance for communities planning to establish a school. It includes advice on designing and constructing a school building.

A brief description
There is no single ideal design for a well-functioning school, and this tool does not give step by step instructions on how to build a school. Instead, it provides guiding principles and the key questions to be asking when planning to establish a school.

Explaining the words we use

Curriculum – the programme of work that teachers and pupils will follow to advance pupils’ learning.

Hazard – an extreme event or occurrence which has the potential to cause injury to life and damage to property and the environment.

Stakeholders – anyone who will be affected by the project.
C2 ESTABLISHING A SCHOOL

Time taken
Planning a school takes a long time. It involves consulting all the relevant stakeholders and agreeing the size, location, budgets, resources and curriculum. It also involves gaining permissions and approvals. Building a school can take between a few weeks and many months depending on the size and number of facilities.

Keys to success
- Ensure full participation of all relevant stakeholders including women, men, children, teachers, and children and adults with disabilities.
- Ensure stakeholders are properly listened to and consulted – careful consultation highlights and avoids many potential problems.
- Develop facilities and a curriculum that can be used by everyone to ensure the school is suitable and welcoming for girls, children and teachers with disabilities, children with special needs and children from all parts of the community.
- Ensure the school aims to provide for children with the greatest need for education – don’t set the school up to compete with an already successful school.
- Develop an environment that supports good quality learning. This includes a well-designed curriculum, but also good quality facilities and capable teaching and support staff. It also includes making sure that that children are supported to learn, for example that they feel safe, and are not hungry or tired, or too hot or cold.
- Prioritise child protection and safety. As a minimum, ensure there are no areas where children could be vulnerable to abuse by other children or adults.
- Ensure you get good quality of design and construction.

Find more tools like this at tilz.tearfund.org/Reveal
What to do
Listed below are some of the important things to consider, and some of the key questions you might want to ask, as you plan your project.

Before starting
It is important to establish whether there is a **real need for a new school or a building** before starting your project. Take time to consider the following:
- Is it someone else’s responsibility to establish a school, such as the education authority or local government? If this is the case, you may want to consider **advocacy**, calling on them to fulfil their responsibility, and seeing how you could work *with* them in the provision of education. See Section C1 for tools and guidance on advocacy, including Tool C1 – Advocacy – communicating with people in power.
- Are there existing plans to establish a school that you could get involved in?
- If there is an existing school which you think is not doing very well, can you get involved in helping to improve it, such as raising money and resources, attracting good teachers, raising educational standards or setting up homework clubs?

Ensure full participation and input from stakeholders (people with an interest in the project)

- Sometimes, when very large schools are being built, school construction will involve people such as contractors, architects and maintenance and service companies. It is important to involve these people in planning.
- Who can you ask for technical support? Consider local or national government officials, contractors and NGOs working in your area.
- **Ensure all stakeholders are involved in all aspects of planning and decision-making.** It is particularly important to ensure children are consulted. Who will attend the school? How can you encourage girls and children with disabilities to be involved?
Consider what size the school should be, and what facilities it will have

What size should the school be?

How many children do you think will attend the school?

Do you want to build one school or several schools for different ages?

In secondary schools, pupils often have different lessons in different classrooms. If you are planning a larger school, could it be built around a courtyard to facilitate children moving around the school?

Could the school be located in a building that already exists, for example, a community centre, church or within houses, or is a new building needed?

What rooms and facilities will the school need?
Many of the possible rooms and facilities are listed below. Many schools do not include all of these: many start with just a few classrooms and toilets. (Separate toilets for boys and girls are important.) However, they are listed in full to help you think through different options.
Facilities that may be needed:
- classrooms and rooms for practical classes and workshops
- a library
- a kitchen and dining room
- offices and a staff room for teachers, the head teacher and administration staff
- separate toilets for boys and girls
- dormitories for boarding
- teachers’ accommodation
- a hall or assembly room
- a sick room with first aid facilities
- a reception area and porch or veranda
- spaces for sports, games and play, and changing rooms

Could any of these rooms and spaces have a dual purpose? For example:
- A porch or veranda could also be a display space or reception area.
- Part of the school could also serve as a cyclone or flood shelter or adult education centre.
- A dining hall, assembly room or sports hall could be used for large community meetings. (If your school will not have a dining hall, it may be worth building one very large classroom (for example, 80m²) that could also serve as a community meeting centre.)

Consider the specific location of each room or space. For example, in a large school the kitchen may need direct access to the driveway for deliveries of food.

A note on classroom size:
How many children will be in each class? According to the Global Partnership for Education, a manageable class size has a maximum of 40 students per teacher. Ensure that you allow enough space for the children, teacher, desks and storage. A rough guide is to allow 1.3m² per pupil and at least 2 metres between the front row of desks and the teacher. A classroom should not be less than 40m² unless there are to be fewer than 20 pupils in the room at one time.


Consider governance, funding and maintenance
- Who will own the school? Who will run the school? Who is responsible for its management? Will there be a board of governors? Who will make decisions?
- Who will ensure the building is maintained? Who will manage the facilities? Will the school employ a caretaker or will volunteers attend to the maintenance and cleaning of the school?
- How will the school be funded – both the building of it, and the running of it? How can this funding be made sustainable? Could you plan for income-generation activities to be part of the running of the school? It is important to be clear on funding before any building work begins.
Decide the location
Factors to consider include:

- Who owns the land? Do you have permission to build on it?
- Is the site fairly level? (This is often more suitable for a school location.)
- Is the site well drained?
- Is the area vulnerable to disasters such as earthquakes, storms or flooding? How close will the school be to hazards such as a river that could burst its banks, or a hill or mountainside that could experience a landslide? If so, what measures can be taken to reduce vulnerability?
- Is it away from rubbish dumps, ponds or wells, busy roads and polluting industries?
- Are there tall trees on the land? These can give shade, but in high winds they may fall.
- Is there enough land for activities such as sports, school gardening or livelihood training?
- How close will it be to pre- or follow-on schools?
- Is there room for the school to expand in the future?

Focus on the quality of learning
Educational Approach: Which curriculum will you follow? Does the government have a curriculum for schools to use? – Is this optional or compulsory? What skills will it be important for children to learn? Should you consider a livelihoods-based curriculum? Should Disaster Risk Reduction be part of the curriculum? Which subjects will the school teach? How involved will the parents be in the children’s education?

Recruiting teachers: Who will teach the children? From where will teachers be recruited? How will the teachers be paid? Will they expect housing and food in addition to a salary? Who will lead the school?

School resources: What equipment will the school need? What about desks, chairs, text books, chalk boards, exercise books, paper, pens and other resources? Will children wear a school uniform? Is there local government funding available for some of these things? Should you consider advocating for government resources? (See Tool C1 – Advocacy - communicating with people in power).

Inclusion: How can you ensure that children with disabilities can learn in the same classroom as other children? In designing the building, how can you ensure there is sufficient access for children with disabilities and special needs?
Respecting age differences: There is a huge difference between a five- and an 11-year-old, or between an 11- and 17-year-old. In addition to having separate classes and curricula, could you consider separate toilet blocks and different break times for younger and older children? Ensure that the youngest children are allocated the toilets nearest to the school.

Nutritional needs: If children are to learn, they need to be healthy and nourished. How can good nutrition be encouraged? Could a school feeding programme be run by the community at lunch times?

Prioritise child protection
It is important to ensure children are protected from harm. Child protection needs to be a priority at every stage of the construction project, and in every aspect of the school’s operation once it is built. These are some examples of important things to consider:

- In thinking about the location of the school, consider issues such as the route children will need to walk to school. How can their safety be protected?
- In designing the school, avoid blind or narrow alleys and isolated toilets.
- Ensure there are no trip hazards (during and after construction).
- Think about the level of security and access you want to establish once the school is open. How will staff know who goes into and out of the school? Could all visitors be accompanied?

Consider services and infrastructure
What services and infrastructure are available? For example:

Where will the school get its water from? Consider an improved and protected spring, well or borehole. Rainwater harvesting is often a very suitable option for schools. See Tool C2 – Rainwater harvesting.

Will the school have electricity? If you can’t get electricity, ensure the building is designed to allow in a lot of natural light. Electricity options include: connection to the mains grid, a local grid, a generator, renewable sources such as solar, wind or hydro, or a mixture (hybrid).
What sanitation facilities will the school have?
Latrines are essential for health, comfort and protection, especially for girls. Washrooms are very important for older girls. Locate latrines more than 30 metres from the school building. Ensure there are hand washing facilities. See Tool C2: Choosing and constructing a household latrine.

What facilities are needed for cooking? Ensure an adequate flu or chimney for smoke if cooking is to take place indoors, and ensure that fires are prevented.

How will solid waste disposal (garbage / rubbish) be managed?
Your garbage / rubbish area must always be at least 30 metres from a water source or water storage point, and any school buildings. And it must never be built up-slope from these.

Plan the building design and materials
- How will you design and construct the building? Will it be built by the community or contractors? In drawing up contracts with contractors, do you need to consider quality incentives, defects liability, insurance or contingency plans?
- Avoid false savings: cheap construction often leads to major defects. Can you employ properly qualified, independent construction managers to check the quality of the work?
- What building codes or regulations do you need to follow?
- Write a list of practical use considerations, such as not having gaps between floor boards where pens and pencils would be lost.

Think about: SAFETY
- Try to avoid structural columns.
- Ensure there is no risk of falling (eg from bannisters at the top of staircases or from upstairs windows).
- Ensure there is no exposed electric wiring.
- Ensure that drains cannot become blocked.
- Keep grass short.
- Ensure there are adequate fire exits.
- Also avoid spaces where pools of standing water can collect (on the ground or in any structures). Standing water provides breeding grounds for mosquitoes.

Think about: COMFORT
Consider temperature, shade, lighting, ventilation, insulation (heating/cooling) and space. Which materials will heat up quickly? How can you ensure the roof does not let in rain? How can you ensure rooms are light enough, cool enough, warm enough?
Roofing materials
- Avoid asbestos.
- Timber or bamboo? Creates fire risk, may rot or leak, and no insecticides or preservatives are completely safe.
- Grass, reed or thatch? Low cost, but requires skill to fit and can provide a habitat for pests to breed.
- Corrugated iron? Low-cost but corrodes, is noisy in rain and can make a room feel very hot.

Walls made of brick, concrete or soil stabilised blocks. In very hot environments, walls could also be made from cloth that can be rolled up, although more permanent solutions are often preferred.

Ceilings must be at least 1.5 metres high.

Foundations should be built under all walls. The depth will depend on the height of the building (eg typically 0.8 to 1.2 metres depth for one- to three-storey buildings but depends on soil bearing capacity.)

Windows
- At least two window openings per room, approximately 1.5 x 2 metres in size
- Glass is secure and keeps rain out, but rooms become hot. Could open windows, but creates hazards.
- Wooden/ metal shutters? Allow ventilation but need artificial lighting.
- Brick jali? Allow light and air through but keep out most rain.

In areas prone to flooding, consider building a school on stilts with ramps for access. See Tool C2 – Flood-resistant buildings.

Ring beam
A ring beam (also known as a crown, collar, bond, tie beam or seismic band) is a continuous band of wood or concrete around a building, which ties the walls together in a box-like structure. There are usually at least two, one in the foundations and the other just above the windows and doors. They are among the most essential components of earthquake resistance for load-bearing masonry or adobe buildings.

The ring beam must be strong, continuous and well tied to the walls, and it must also be attached to the roof, giving it support.

A concrete beam should be reinforced with steel rods. The corners of the building should also be reinforced with vertical steel rods, tied to the ring beams and tied also to the roof structure. Earthquake resistance is a technical topic and the best solution is to seek advice from a qualified structural engineer.
Finding out more

- Otto Ruskuilis (2009) *School buildings in developing countries*  
- To find out more about rainwater harvesting, see: Smet, J (2003) WELL factsheet: *Domestic rainwater harvesting*  
  [www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-hmt/drh.htm](http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-hmt/drh.htm)
- Tearfund (2011) *Disasters and the local church*  
  [tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)

Related tools:

- A1 – Revealing the need to protect children: information for facilitators  
  [A1: Children & youth-1](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- A2 – Using the media to talk about child protection  
  [A2: Children & youth-1](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- A2 – Drama on child marriage  
  [A2: Children & youth-2](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- A2 – Discussing standards for child protection  
  [A2: Children & youth-3](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- B – Caring for children (Bible study)  
  [B: Children & youth-1](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- B – God’s view of children (Bible study)  
  [B: Children & youth-2](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- C1 – Advocacy – communicating with people in power  
  [C1: Awareness raising-2](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- C2 – Flood-resistant buildings  
  [C2: Disaster risk management-1](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)
- C2 – Rainwater harvesting  
  [C2: Water, sanitation & hygiene-1](http://tilz.tearfund.org/en/themes/disasters/disasters_and_the_local_church/)

Notes

The section on ring beams was taken from: Tearfund (2011) *Disasters and the local church*  