



MATERIALS DATAS

Kaira Loro Architecture Competition

www.kairalooro.com

This document shows only some of the most available materials in the project area, however participants are free to use any kind of material.



CIMENT BRICK

This is the currently favorite material. These are hollow or solid bricks made with a mixture of sand and cement, inside an iron box. Today almost all buildings are made with these bricks.

Local use



fence



building

Features



heavy



cement
production

Average sizes



15 cm



20 cm



35 cm

Availability



locally



ROSEWOOD BEAMS

Beams are produced for the construction of roofs. The wood is quite hard and resistant to termites because it is compact. The same wood, in the form of planks, is used for the creation of furnishings.

Local use





carpentry

Features



resistance

Average sizes

5 cm  2 m  8 cm



Availability



locally



STRAW

Straw is a seasonal product that has always been used in traditional house roofing. This use is now being lost to the detriment of the sheets, also because constant maintenance is required and often in the laying method it is not possible to totally protect from the rains.

Local use



roofing



agriculture

Features

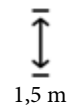


ecological



cheap

Average sizes



1,5 m

Availability



locally



SAND

Numerous river sand quarries are available, mainly used for construction. The sand can take on different grades but always keeping gray, and has a small amount of clay.

Local use



brick
production



building

Features



little clay
content

Average sizes



not available

Availability



locally



LOCAL TRUNK

There are small sawmills that can produce and cut local tree trunks of limited size, to create rectangular or cubic elements.

Local use



building

Features



heavy



strong

Average sizes



20 cm



2 m



40 cm

Availability



regionally



SHELLS AND OYSTERS

Shells and oysters are collected on the banks of the Casamance river, the shells of which are collected to be resold for decorative purposes or as an inert material for cement. Both uses are slowly being abandoned, leaving the shells to be used only for the creation of objects for commercial use.

Local use



road
construction



decoration

Features



impact
resistance



reusable

Average sizes



4 cm



0,5 cm

Availability



regionally



RED EARTH

The soil substrate is lateritic-sandy. There are red earth quarries having a small amount of clay. Normally this earth is used to produce earth bricks, but its use is being abandoned and this earth is used to build roads in rural areas.

Local use



brick
production



building

Features



clay content

Average sizes



not available

Availability



locally



CRUSHED STONE

The area develops in sandy lateritic soil. Laterite quarries are present where large boulders are extracted (without the use of machinery) subsequently crushed and sieved to obtain crushed stone. The material is mainly used for the construction of roads or dams.

Local use



road
construction



concrete
production

Features



impact
resistance

Average sizes



5 cm

Availability



locally



ROSEWOOD

The rosewood tree today risks instinct, however local authorities manage the cutting according to determined hierarchies and bureaucracies trying to control desertification. This type of wood is used in the form of planks especially for the production of furniture such as beds and sofas.

Local use



furniture

Features



resistance

Average sizes



3 cm



2 m



20 cm

Availability



locally



TIRES

In the absence of landfills the tires are thrown into the river, on the roadside or burned in the surroundings of the village. They constitute a resource that can be reused to avoid pollution.

Local use



rubbish dump

Features



polluting

Average sizes



40 cm

Availability



locally



LATERITE STONE

The area develops on sandy lateritic soil. Laterite quarries are present where large boulders are extracted (without the use of machinery) mainly used for the construction of roads and dams.

Local use



road
construction

Features



impact
resistance

Average sizes



30 cm

Availability



regionally



EARTH BRICKS

Building traditions made use of baked clay bricks in the sun. Today these types of bricks have been abandoned for cement and sand bricks. Bricks made with earth are often stabilized with cement.

Local use



fence



building

Features



heavy

Average sizes



15 cm



20 cm



35 cm

Availability



locally



CORRUGATED SHEET

The sheet is used for roofing, and has replaced traditional roofs. There are poorly manufactured sheets that begin to corrode after a few years and aluminum sheets that are mainly used in the roofs of markets or other public buildings because they are more expensive.

Local use



building

Features



lightness



waterproof

Average sizes



2 m



1,2 m

Availability



nationally



METAL SHEET

Sheet metal sheets are used to make gates, doors and windows. The material is imported from the north of the country.

Local use



fence

Features



lightness



flexibility

Average sizes



2,5 m



1,2 m

Availability



nationally



METAL SHEET WITH DECORATION

These are laser cut sheets to provide interior and exterior decoration. It is possible to create any type of texture and color. The image is just an example of texture.

Local use



building

Features



lightness



flexibility

Average sizes



2,5 m



1,2 m

Availability



nationally



BROKEN TILES

There are imported tiles that are used in construction. Sometimes the scraps of these broken tiles are reused in floors or decorations.

Local use



building

Features



fragile



waterproof

Average sizes



5 cm



10 cm

Availability



locally



TILES

There are tiles imported and produced domestically, in different colors and sizes. They are often used in bathroom fixtures and interior flooring.

Local use



building

Features



fragile



waterproof

Average sizes



5-10 cm



10-30 cm

Availability



nationally



MANGROVE

The Casamance basin has one of the most important expanses of Mangroves. The plant is used as firewood and leaves as a medicant. It favors the production of oysters and the conservation of a climate useful for the reproduction of the flora and fauna of the river. In recent years, mangrove plantations are used to limit coastal erosion.

Local use



road
construction



concrete
production

Features



flexibility



traditional
medicine

Average sizes



5 cm



2 m

Availability



regionally



WASTE MATERIALS

The streets of the villages or in the areas in front of the houses are often collected and burned waste such as plastics, fabrics, tires, broken bins etc. Sporadically the waste is collected and transported to landfills which are subsequently burned in the open air causing pollution and soil contamination. Such waste can, however, constitute a resource to be reused and regenerated through a recycling process.

Local use



rubbish dump

Features



polluting



flammable



malodorous

Average sizes



not specified

Availability



locally



METAL BEAMS

Iron beams and pillars are used in the capital for the construction of infrastructure and government buildings. The use of these materials requires the commitment of qualified personnel and professional equipment absent in rural areas.

Local use



building

Features



resistance



durability



expensive

Average sizes



different sizes

Availability



nationally



FABRICS

Senegalese fabrics are a cultural and traction emblem. Bright colors fill the streets and ceremonies. The clothes with these fabrics are today mainly used in ceremonies and on representative days.

Local use



tailoring



decoration

Features



slow
elasticity

Average sizes

5 m

1,5 m

Availability



regionally



IRON FOR CONCRETE

Reinforcement iron for concrete of various sections (6-8-12 mm) are available, used to reinforce pillars and beams. The material is imported from the north and some supplies often deliver disposable and recycled irons with characteristics other than those declared.

Local use



building

Features



resistance



durability

Average sizes



8 mm



6 m

Availability



nationally



MULTILAYER PLYWOOD PANEL

Multilayer plywood panels are often used as a false ceiling in buildings, to create furniture or to close doors and windows. The material is not resistant to water and weather so it does not have a long life if exposed.

Local use



building



furniture

Features



lightness



no resistance
termites

Average sizes



10 mm



125 cm



235 cm

Availability



regionally



LOCAL BAMBOO FENCE

They are fences made with wild bamboo used to fence agricultural fields, houses or the pasture area. They are sold in sheets of 1.50 by 2.5 meters but it is also possible to request them in different sizes.

Local use



fence

Features



no resistance
termites



cheap

Average sizes



3 m



1,5 m

Availability



regionally



BARBED WIRE

Barbed iron wires are produced in the north and imported in the south of the country, they are mainly used to create fences useful to prevent the entry of thieves or to prevent the loss of livestock.

Local use



fence

Features



resistance



durability

Average sizes



80 m

Availability



nationally



WOOD PLANK

Samba or frakè wood boards are available, used for carpentry and as a formwork. The wood is fairly porous and subject to termites so constant treatment and maintenance are required.

Local use



carpentry

Features



resistance



termites

Average sizes



3 cm



4 m



20 cm

Availability



nationally



PALM TRUNK

Desertification and human action are slowly making palm forests disappear, which are therefore now protected and protected by the authorities. Once they were used for the construction of huts, beams and pillars. Today, with the necessary safeguards and bureaucratic procedures, it is possible to have palm trunks in small quantities.

Local use



building

Features



resistance



termite

Average sizes



30 cm



4 m

Availability



regionally



BLACK CLAY

The valley is composed of a sandy clay bottom, with a high organic content and polluting element since rubble and waste are often thrown into the river.

Local use



agriculture

Features



high clay
content

Average sizes



not available

Availability



locally



BAGS

The bags are used for the packaging and transport of rice, peanuts and other agricultural products. They are produced in Senegal with polypropylene fabrics. The bags are sometimes filled with sand and used to create banks and erosion containments.

Local use



road
construction



agriculture

Features



cheap

Average sizes



60 cm



90 cm

Availability



nationally



WILD BAMBOO

Wild bamboo is found in local forests, it is a plant that grows rapidly but is subject to protection due to desertification. This material is essentially used to create fences.

Local use



fence



heating

Features



termites



flexibility

Average sizes



5 cm



5 m

Availability



regionally



BAMBU VULGARISA

Bamboo is a protected plant because it is in extinction. The plant was once used for luxury furnishings, therefore for the prominent subjects of society. Today there are small reserves of bamboo which require many authorizations and certain bureaucratic procedures to be used.

Local use



furniture

Features



flexibility

Average sizes



15 cm



5 m

Availability



regionally



METAL PROFILES

Iron profiles of different sizes are available, mainly used to create furnishings, windows, doors and gates. The material is imported from the north of the country.

Local use



building



fence

Features



resistance



durability

Average sizes



different sizes

Availability



nationally



WOOD BEAMS

Samba or frakè wooden beams are available, used for the construction of the roofs. The wood is fairly porous and subject to termites so constant treatment and maintenance are required.

Local use



carpentry

Features



resistance



termites

Average sizes



5 cm



2 m



8 cm

Availability



nationally



CALABASH

Calebasse is obtained from a plant. It can be either harvested young to be consumed as a vegetable, or harvested mature to be dried and used as a utensil, container, or a musical instrument.

Local use



furniture



music



decoration

Features



lightness



cheap



fragile

Average sizes



20 - 40 cm

Availability



regionally



Kaira Loro Architecture Competition

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Organized by Balouo Salo

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