Jakarta Bersih develops buildings in which the facades are fully constructed out of waste material. Through using clever recycling techniques, the building not only provides shelter, but generates clean water, electricity, food and clothing as well. Building costs are reduced to a minimum, the environment is hardly burdened and the inhabitants themselves finish their homes, through a so called ‘Do it Yourself’ (D.I.Y.) facade system.

Part of the self-sustaining concept in the processing of waste on micro-scale, in which the end products are directly incorporated in the building. Collected waste is transformed into building materials that shape the D.I.Y. facades of the separate family units. Through on-site development of building materials, the finished building will reflect local craftsmanship. Furthermore, the production of these materials can continue to generate low cost building supplies for surrounding sense.

Creating a resettlement strategy in order to decrease floodrisk

In order to demonstrate the spatial and functional implications of the strategy, Jakarta Bersih has made a sequence of building propositions, applying the rehabilitations along pathways in Jakarta. The issue of resettlement is main urgent along the rivers in this city. Dredging can lower the amount of floods in the near future drastically, which means the inhabitants of the community in dredged areas will need to be relocated soon.

As part of the Land Acquisition and Resettlement Action Plan (LARAP), a design proposal was made replacing the fisherman’s community along the embankments of the Banjir Canal, located at Kali Muara Angke. The plots are developed in corporation with the World Bank, the Ministry of Housing and the GAD. The area is currently vulnerable to flooding. Dredging is inevitable. In order to start the dredging process, the fisherman’s community needs to be relocated in such away, that it will sustain.

Having a complete community, whilst maintaining the kampung dynamics

This building contains 4 types of use: housing, public space containing informal markets and collective functions, water processing and agricultural production. On the lower ground level, waste will be collected and processed. The upper floors will contain the housing units, informal markets and collective functions, all connected by stairs and ramps, providing easy access. The top level water collection tanks are positioned, green areas like bamboo plants or vegetable gardens are created, and a mosque and playground are incorporated.

Generating with minimal ecological footprint

The innovative strength of this project is the process of generating actual building materials from locally collected waste. Each building will be shaped, based on the resources from its surrounding, no building is alike.

In corporation with the inhabitants, the facades and lay-out of the housing units are developed. Families construct their own facade panels, out of glass, metal, wood, plastic, or any material that is at hand. Within a standard framework made out of bamboo, different materials are captured, generating a variety of panels. The community is educated in framing the materials structurally and sustainably. Through applying a professional structural method, only within the framework, arbitrary personal craftsmanship and development of techniques, individual character will be reflected in the separate housing units.

Achieving social sustainability through flexibility

Besides providing most of the local needs, the building is flexible to adaptation over time. Through prosperity, the building will improve accordingly, generating a social sustainability that will endure.

Facade panels, wooden or bamboo frames with multiple finishing possibilities

frame + bamboo
frame + driftwood
frame + cardboard
frame + metal cladding
frame + corrugated steel
frame + plastic bottles

Vertically Informal Settlement and Waste Recycling Center

Jakarta - Indonesia