

INTERNATIONAL DEVELOPMENT CASE STUDY 1
Resourced Based Building Materials Project, The Gambia**Issues in the Gambia :**

Transport - battling to keep roads open especially during the wet season, long distances involved for imported building materials

Aggregates - soils are primarily formed from fluvial deposits of silt and clay, with lesser proportions of sand and very little gravel. Primary sources of hard aggregates have thus come from outside of the Gambia , such as Senegalese basalt stone.

Mud and dust - the combination of long periods each year without rain and the Harmattan winter winds from the desert results in dust laden air or mud laden feet, depending on the time of year. This presents many problems in keeping hospitals, businesses and homes clean.

**Phase I**

The first objectives of the project, led by the Commonwealth Secretariat and the Gambian Government commissioning the services of Parry Associates, were to carry out an appraisal of prior work into available raw material resources and research into means of converting local materials into usable building products. Training facilities both in the public and private sector were selected, and a stakeholders' workshop in collaboration with the Office of the President in The Gambia was held to define the direction of the project.

Phase II

The second phase organised the manufacture and despatch of production and training equipment for upgrading the existing workshops in Latrikunda, Brikama and Mansakonko, and the equipping of workshops in three new

locations. All production and training activities including installation and commissioning were underway, national standards were drawn up for the products, and graphic designs, technical and marketing support programmes were prepared. A manual was produced for production and construction, and contacts were opened with the public and private sector building materials enterprises and institutions, international donor agencies, architects and specifiers.

Benefits of the project

It was revealed that a source of hard aggregate could be found locally within the Gambia. River alluvium which through weathering has been leached of most of its fine particles, leaves behind an aggregate of coarser materials which will include gravel and sand, this material is known as Laterite. Laterite is very widely available on the floodplains of the River Gambia, and local people have previously sieved this material for supplies of gravel, but the procedures used were very labour intensive, expensive and inefficient. We introduced a vibrating sieving machine that can quickly divide laterite into three grades appropriate for use in construction products, thereby opening up the market for import substitution of basalt stone previously used to make up for the lack of locally available hard aggregates.

By adapting existing soil-pressed block technology and through Parry roofing technology several small business enterprises are now thriving, providing livelihoods and the option of low-cost quality housing. Additionally the drop in costs for hard surfacing will result in hospitals, businesses and home-owners being able to afford small areas of outdoor paving, helping to reduce the problem mud and dust getting into buildings.

While the programme was running we were able to give technical support to the school building activities of the Swedish charity Future-In-Our-Hands, which was already building classrooms with Parry tiles. As a result of further refinement of their operations FIOH achieved recognition under the World Bank Education Programme, have expanded their production capacity by importing additional consignments of Parry equipment. To date, FIOH have constructed over 100 classrooms throughout the Gambia including some of the remotest up-river districts.