

## Infrastructure refurbishment

In order for the Wildlife Protection Units to carry out their work effectively some essential infrastructure should be implemented.

This includes

- Water supplies
- Roads
- River crossings
- Buildings
- Energy Supplies
- Communication networks

Brief details on these are provided below.

### Water Supply:

Solar generated water reticulation systems will be installed at all field and headquarter stations through the Project Area, each with a backup system using diesel –driven water pump, (dependant upon site) as well as the relevant reticulation and storage tanks.

### Roads:

Traditionally, road infrastructure in the wildlife areas/ National Parks/Safari Areas is of gravel construction, and which by its nature requires maintenance, at least twice per annum, if the structure and form of the road is to be retained. Smaller “loop” roads are seasonally washed and need refurbishment through the use of a grader, hand labour and construction of causeways in certain situations, and in some cases, complete realignment..

### River Crossings:

Most river crossings in protected areas are either unimproved or have minimal engineering works to make them passable. This can make movement through an area by road impassible during the rainy season and difficult during the rest of the year. Key crossings will be rehabilitated where necessary, using hand labour and simple tools, wherever possible.

### Buildings:

Base Office: Each Wildlife Protection Unit requires its own

Base building, comprising a radio room, mapping and operations room, and storeroom. This office requires basic equipment and fittings such as computers, printers, cabling, stationery store, cupboards, filing cabinets, desks, safe, gun safe, fans, data files storage. Some field stations will require computers and printers, with accessories and software, depending on needs.

### Personnel Accommodation:

- 1) 2-family unit with interior bathrooms and exterior kitchen
- 2) 8-man dormitory with ablution block and external kitchen.
- 3) All facilities will be serviced with water and energy.

### Design:

The type of construction typically used by PWMA is a brick and mortar building, designed to keep cool in the extremely hot temperatures common in the Zambezi Valley.

However, the design in all new buildings will be such as to demonstrate maximum awareness of the environment. Roofing will be of modern, safe, environmentally friendly materials, incorporating the need for solar power, and all wood products within the buildings will have had to be treated with environmentally safe chemicals. Bricks for all building will be hand made by a community labour force, using brick-making machines with as many local materials as possible, such as sand and stone. (Continued on page 2)



Typical Road Conditions



Staffing Quarters



A newly installed Solar power supply.

Local rocks will also be used in relevant areas. Flooring will comprise environmentally friendly tiling, which require minimal upkeep.

#### Energy Supply:

Solar generated energy supplies will be installed at all field and headquarters stations, also specifically designed to support the Wildlife Protection Unit needs, to support VSat installation, computer, radio, cellphone, all-battery charging, provision of lighting, and this will help to offset the chronic shortage of national power. In most cases however, stations are remote from any national power grid.

The solar panels used will be of a first world standard, usually guaranteed for 25 working years, taking into consideration the heat and weather conditions. All other materials used are of a world-class standard, and designed for minimal upkeep. There is little doubt that the new buildings with solar installations will meet the environmental friendly and carbon footprint requirements globally.

#### Communications:

The PWMA radio network has been in existence for a long period of time, and certainly in The Tashinga Initiative Project area requires a complete overhaul and refurbishment. In addition, new repeater links will be installed to repair or improve the networks.

In conjunction with this, VSAT satellite links will be installed at all Park Headquarter stations, and where relevant, in a few specific field stations that are key to wildlife protection unit operations. This will facilitate the use of email and Skype, and therefore communication with The Tashinga Initiative Project Base in Harare. One such installation is already in place at Tashinga HQ in the pilot project area of Matusadona, and has immediately improved communication efficiency immeasurably.

All mobile Motorola radios and the batteries associated with these, presently in service, need servicing, refurbishment or replacement throughout the Project area. These radios are absolutely key to successful and efficient patrol coverage of the areas concerned, for report back, for safety reasons, for follow up, and finally for the ultimate success of the work of protecting the wildlife.