

FROM MALNUTRITION TO ABUNDANCE THROUGH PERMACULTURE
AN INTRODUCTION TO THE CHIKUKWA PROJECT

Terry Leahy and John Seed, April 2013

Chikukwa is on the edge of a mountainous region of Eastern Zimbabwe bordering Mozambique. Here the 7000 members of the Chikukwa clan live in of six villages along a 15 kilometre stretch of hills and valleys as they have for centuries .

The Chikukwa project was initiated in 1991 when the spring which had served about 50 households in Chitekete village for their water supply dried up. This was the culmination of a growing crisis, caused by clearing of the original forest vegetation, combined with over grazing and cropping. Six neighbours tried digging for water. But with further rains, the spring silted up again. So they organized a one week permaculture design workshop. They invited five householders from each village, traditional leaders and representatives of youth and went on to set up a "permaculture club".

With their newfound skills, the club began collecting seeds, establishing legume trees, orchards and vegetable plots, starting nurseries for fruit trees. Getting the help of other community members, they initiated working parties to fence off the springs and plant indigenous species, to plant woodlots and fence them, to put in contour bunds and swales.

Their successes led to the formation of similar permaculture clubs in all the six villages. By 1995, they were receiving funding from a German NGO. In 1996, to link up the village groups they formed CELUCT – Chikukwa Ecological Land Use Community Trust and built the Chikukwa Permaculture Centre – a kitchen for catering, a dormitory, open sided halls for workshops and an administration office. A pre-school was established. In 1997 CELUCT started up food processing clubs to process surplus for sale. In 1998 social groups were formed for women. In 2006, they established a department for conflict transformation – Building Constructive Community Relations. Local groups were

Chakohwa	40	36	28	28	32	28	36	60	64	60	60	52
Chayamiti	50	46.2	38.5	38.5	34.6	46.2	42.3	50	65.4	69.2	69.2	65.4
Chikukwa	83.3	83.3	79.2	66.7	70.8	70.8	87.5	91.7	95.8	95.8	95.8	95.8
Chikwakwa	24	8	8	12	20	24	28	36	44	48	36	40
Manyuseni	72	68	60	60	52	64	72	72	84	84	84	79.2

There is a marked difference between Chikukwa and the other wards. The food shortage the other wards experience is typical of South and Eastern Africa.

So a new landscape has been established over the period this project has been operating. The elements have been repeated in each of the six villages as households copied the successful designs of other villagers. Each village has a spring, about a third of the way from the hilltops, the water source for the village. The gully has been fenced off to protect the indigenous woodland, planted and self sown. Each spring has one or more poly-pipes leading down to a community water tank. Each tank supplies water to taps in household yards. On the upper slopes and some lower ridges, there are woodlots of quick growing trees. They maintain the health of the springs, store and release ground water, prevent erosion and provide fuel and timber.

There is a pattern of design common to residences today. Water from the roof falls onto the yard, which slopes gently to the orchard, next down the hillside. A washing up stand is located in the yard next to the orchard, so grey water can be thrown below. Utensils dry in the sun, killing germs. This is also the site for the tap. Around to the side of the house are the pens for small livestock, typically chickens (for meat and eggs), pigeons, and goats. Also kept sometimes are fish (in ponds), pigs, rabbits or turkeys. To ensure the orchard is well watered, pits or contour bunds trap water. Often a cropping field next to the orchard will have a contour bund and ditch (swale) running to the orchard. Typical fruit species are banana, Mexican apple, mango, passionfruit, guava, papaya, pineapple, citrus, avocado. Vegetable matter and manure goes to compost heaps, used to fertilize the vegetable garden and the orchard. Below the orchard, unshaded by trees, is the vegetable garden. Common crops are sunflower seeds, kovo (a kind of cabbage), rape, amaranth and scrambling small

tomatoes – trouble free vegetables. These are inter-planted with legumes such as Leucaena and Sesbania. Weedy, traditionally-used leafy vegetables are also grown and collected . The cropping fields are close to the house or on the flood plain. Good crops of wheat and maize come from the use of manure and the effect of the contour bunds. Crop residues are composted. Some families have cattle and use them to plough, but many use hand hoes. An open-ventilated 'Blair' pit toilet is typical for sewerage.

Most projects in Africa are initiated by an outside agency which sends a team of professionals to help villagers. These community workers are backed by a central bureaucracy. Usually, aid projects will run for several years, after which the intention is that the community will 'take ownership' of the project. Typically, the community members are unable to continue after the professionals have departed.

The Chikukwa project is, by contrast, 'embedded'. It was generated by residents. It did not spring up to receive funds from any outside donor and in fact worked without funding for its first five years. Full time staff are local residents, even though a number of them have come from elsewhere. At least half of them are locals by birth. The whole of the project is geographically contained so members of the team can actually walk to the villages and villagers can walk to the centre. The formally educated professionals in the management team have mostly been teachers in local schools and have a history of involvement.

Most projects in this region of Africa are founded on a strategy of commercialisation, and fail accordingly. Rural villagers rarely have the educational background required for a commercial enterprise. Household plots are quite small. The farm gate price of most cash crops is lower than the retail price for basic food staples grown on the same plot. With a plot that will produce just enough to feed a household, the retail price of staples, relative to the farm gate price of cash crops, becomes crucial.

The collapse of the Zimbabwe economy has favoured the food security subsistence approach of the Chikukwa project. The effect was to force people to

come back to the rural areas to ensure that they could grow some food for their families. The usual exodus of young people from the rural areas came to a halt.

The basic aim of the Chikukwa project has always been improved subsistence and food security. In the subsistence strategy of the Chikukwa project, people produce food for their own household on their own land and no money is required to purchase inputs.

In much of this region, subsistence farming concentrates on maize and cattle and little else. Everyday supplies of vegetables, beans and animal protein are expected to be purchased. The outcome is malnutrition. The Chikukwa villagers combine orchards, vegetable gardens, cropping fields and small livestock to be self sufficient in all nutrients without depending on inadequate supplies of cash.

Unlike most projects in the region, the Chikukwa project is based in participatory initiation. The people concerned specify the problem and undertake the work.

The Chikukwa project is an indigenous 'Southern' solution to a problem typical of the region of South and South Eastern Africa. This is the failure of food security in rural areas and the inadequacy of any kind of assistance programs to deal with this in the long term. This introduction has begun to explain some of the reasons for the remarkable success of the Chikukwa project; a success which stands in stark contrast to the persistent failures of most rural projects and which has stood the test of time to show that it works.

The Chikukwa project can be viewed as a model for development work in South and South Eastern Africa. With suitable encouragement, this solution could be pursued from South Africa to Uganda.

A group of us in Australia and elsewhere are working with Chikukwa to help actualise this: to move the project into its next phase – enabling the lessons and skills learnt by Chikukwa over the last 20 years to be successfully transferred to other African communities suffering from malnutrition. To this

end, in 2012 we raised \$2000 for a pilot ["train the trainer" programme](#) to prepare the Chikukwa community to host a group of some 20 to 30 farmers from elsewhere in Zimbabwe in 2013. Following the successful [conclusion of this training](#) we anticipate a proposal in May 2013 for Celuct to train another community. **If you would be interested to help support this project, please contact [John Seed](#)**

For a [more extensive discussion and explanation](#) of the project

About the Authors:

Terry Leahy works at the University of Newcastle and has been conducting research on food security projects in Africa since 2003. His survey of the problems of food security in South Africa is published as [Permaculture Strategy for the South African Villages](#) . He regards the Chikukwa project as the most successful he has encountered.

Terry and his sister Gillian are presently completing an hourlong film about the Chikukwa project. An inspiring 20-minute version may be seen [here](#).

[John Seed](#) OAM, founder of the [Rainforest Information Centre](#), has been working for the conservation of nature since 1979. He also practices permaculture and is interested in the huge role that unsustainable agriculture plays in the destruction of native forests, rivers and reefs.