



## CONCEPT FOR PERMEZONE PILOT – PHASE 1 – 2017

<b>Title of Project:</b>	<b>Integrating Permaculture Practices with Mobile Phone Information Platform for Smallholder Farmers in Migori County</b>
<b>Location:</b>	Rongo, Migori County, Kenya
<b>Project Duration:</b>	24 months
<b>Implementing Organization:</b>	Permaculture Research Institute of Kenya (PRI-Kenya) in partnership with Sustainable Village Resources, Rongo (SVR)
<b>Strategic/ Funding Partners:</b>	PermEzone
<b>Purpose:</b>	<i>To build community based eco-social resilience, food security and cooperative practices that help build more resilient local economies for small-holder farmers in Migori County, Kenya.</i>
<b>Objective:</b>	To develop and implement a one-year permaculture design training aimed at small-holder farmers and with the support of two years' extension and the piloting of a mobile farm information platform, support farmers to develop model farms that improve production whilst regenerating the environment.
<b>Target Groups:</b>	Subsistence smallholders in Migori County, Kenya
<b>Direct Beneficiaries:</b>	<p>Year 1, 100 smallholder farmers: 20 lead farmers, who will participate in training and receive support in creating model farms, and 80 farmers who will benefit by farmer to farmer (peer to peer) knowledge transfer and extension work.</p> <p>Year 2, 100 additional smallholder farmers to be recruited to benefit from the programme of peer-to-peer extension work.</p> <p>In subsequent years, the lead farmers are tasked with recruiting 200 more farmers between them to benefit from the programme.</p> <p>Note: SVR already engages with 35 Smallholder farmers in Rongo and Asumbi Regions. In advance of the training, SVR will recruit 65 more smallholder farmers into the project from the two regions, and those farmers will select the 20 lead farmers who will benefit directly on full permaculture design course.</p>

<b>Indirect Beneficiaries</b>	2000 (Each household has an average of 5 other members apart from the family head). Family members are indirect beneficiaries.
<b>Outputs:</b>	<ol style="list-style-type: none"> <li>1. A participatory, farmer friendly permaculture design curriculum developed</li> <li>2. 20 farmers trained in permaculture design, with an additional 80 number of farmers trained by extension and peer-to peer education</li> <li>3. 100 number of farmers trialing a mobile phone platform to support extension work to evaluate its usefulness</li> <li>4. 20 model farms developed using permaculture design</li> </ol>
<b>Outcomes:</b>	<ol style="list-style-type: none"> <li>1. Improved and diversified production on model farms leads to enhanced food security and improved livelihoods and the strengthening of local economic resilience</li> <li>2. Model farmers become peer-educators in their community leading to strong communities of practice</li> <li>3. Farmers ability to test their own soils and determine the soil health will be enhanced alongside their ability to gather data to assess improvements in productivity and overall farm health</li> <li>4. A body of knowledge for farmer friendly permaculture training &amp; extension is generated that can support the rolling out of the programme to more areas</li> </ol>
<b>Main Activities</b>	<ol style="list-style-type: none"> <li>1. PERMACULTURE TRAINING- Developing a curriculum together with farmers and delivering this training over the course of one year.</li> <li>2. PERMACULTURE EXTENSION- Regular visits by permaculture extension agent to support farmers with implementation of model farms over the course of two years.</li> <li>3. MOBILE PHONE PLATFORM – Developing a user -friendly mobile phone platform to support extension work.</li> <li>4. PARTICIPATORY M&amp;E- Developing a participatory Monitoring and Evaluation system that allows farmers to be an integral part of the data collection, monitoring and evaluation of the project</li> <li>5. DEVELOPMENT OF PERMACULTURE TRAINING MATERIALS- Development and a trialing ‘farmer friendly’ permaculture curriculum suited to the African context</li> <li>6. BUILDING KNOWLEDGE BASE- Building of a knowledge base on permaculture for small holder farmers and information exchange using mobile phones in order to look at possibilities for rolling out the programme.</li> <li>7. INFORMING SUPPORTER BASE – Documenting project activities with photographs and word-of-mouth evidence of the impact of the program to provide material for permEzone’s work to raise funds for the continuing development of the programme.</li> </ol>

## PROJECT DESCRIPTION

The project aims to work with 100 smallholder farmers in Rongo and Asumbi, Migori County- Kenya through local partner Sustainable Village Resources- Rongo annually. From the 100 smallholder farmers, 25 lead farmers will be selected, who will participate in a permaculture design training spanning the course of one year. The representatives will be 15 farmers from the initial 35 farmers that Sustainable Village Resources has been working with for the past two years and 5 farmers from Asumbi. These farmers will be selected by the farmers themselves, and they will be the 100 farmers' representatives. These representatives will first be part of a workshop to help develop the curriculum for the year-long training itself and will then participate in quarterly workshops which will cover all the essential elements of permaculture design, with the aim of helping the farmers starting to think of their farms as 'whole systems'. In addition to learning about permaculture, the farmers will also receive training in farmer-to-farmer extension, record-keeping, use of the mobile phone platform and collaborative citizen science. The trainings will be followed up by a permaculture extension service, which will further support farmers with the concepts and techniques of permaculture and help farmers with implementation and addressing any challenges. The extension service will be further supported by the trialing of a mobile phone platform to enhance information services to the farmers as well as exchange of information between farmers. The extension service will continue for one year after the training has finished, providing a total of two years of extension. The extension service and mobile phone platform aims to support farmers becoming peer educators and building 'communities of practice' which can help strengthen holistic approaches in the locality, which will in turn strengthen food security, environmental regeneration and local economic resilience.

The trainings will end in a community open day at one of the farmer demo sites where participating farmers will display their produce and information will be provided about permaculture and its benefits to the whole community. Farmers will also have the opportunity to talk about the impact of the programme.

Alongside the training aspect, a participatory Monitoring and Evaluation system will be developed which will see farmers as an integral part in data collection as well as the monitoring and evaluation of the project. Through M&E workshops and linking with the extension work, farmers' ability to do simple soil tests and evaluate the condition of their soils will be enhanced alongside their ability to do simple farm records, enabling them to better understand improvements in production and overall farm health. Farmers will also be an essential part in evaluating whether or not the project has had a beneficial effect on their farm productivity, family food security and community eco-social resilience.

At the same time, the project aims to build a body of knowledge on the training programme, the use of the mobile platform, the extension work and the M&E system, which will support not only the potential rolling out of the programme, but also build capacity of the implementing organization.

## WHY PERMACULTURE?

Permaculture is a design system for sustainable food production and habitats, linking ecology, culture, economics and society to sustain agricultural productivity and biodiversity promoting viable farming communities. It is a synthesis of many disciplines including agro-ecology, organic agriculture, bio-intensive and appropriate technology. Through careful observation and thoughtful design permaculture aims to create systems that use resources efficiently, minimizing inputs and maximizing outputs, whilst regenerating the natural environment, building soil fertility and regenerating water tables. The strength of permaculture lies in its emphasis on designing systems specific to the context and its bottom-up, rather than top down approach to knowledge and innovation. Its emphasis on low cost and accessible techniques to preserve resources and maximize productivity is further well suited to places where resources are scarce. Agro-ecological methods used in permaculture are proven to significantly improve yields and income for small-holder farmers in developing countries, whilst providing essential ecosystem services such as improving biodiversity and soil fertility and reducing vulnerability to climate change. <sup>1</sup>

## IMPLEMENTING ORGANIZATIONS

**PRI-Kenya** specializes in natural resource training with NGOs & CBOs in Kenya, Tanzania, Uganda & Somaliland (SCF). PRI-Kenya's lead trainers have 25 years combined experience of developing and implementing organic agriculture, permaculture and agroforestry projects for food security and sustainable livelihoods. Through the combined expertise of its Director, founders and trainers, PRI-Kenya offers a unique set of skills and is currently the only organization in Kenya able to offer permaculture design training and expertise with local trainers. Since its initiation in 2011 PRI-Kenya has established a strong record of delivering permaculture and ecological production training, working with a number of NGO's and INGO's across East Africa, including Save the Children Fund in Somaliland and Trocaire. PRI-Kenya's donors include the Tudor Trust, WWW Foundation, Rotary Club Wisconsin and the SLUSH fund- charitable arm of the ethical cosmetics company LUSH.

**SVR** is an NGO in Migori county and is blessed with fertile soils and abundant rains but unsustainable agricultural practices has seen an increasing deforestation and soil erosion in the area. The farmers in the area used to make a good income from coffee, but most abandoned their coffee production in favor of sugar production. Despite the good soils and rainfall farmers are struggling to make a living from their sugarcane with volatile markets. The Rongo Coffee Farmers are a group of farmers from all five locations in Rongo who all still have their coffee trees, but who have struggled due to a lack of processing equipment and lack of access to markets and fair prices. PRI-Kenya partnered with Sustainable Village Resources and Rongo Coffee Farmers group to support the farmers in their efforts to create environmentally sustainable livelihoods. Our aim is to see coffee food forests- layered agroforestry (permaculture) systems providing both organic and healthy coffee as well as food crops and other cash crops such as honey. Integrated into the system will also be species that provide essential eco system services such as nitrogen fixing trees.

PRI Kenya in partnership with Sustainable Village Resources and the Biovision Foundation- Switzerland and SLUSH fund in North America, we have started the set-up of a central coffee food forest demonstration site, a coffee tree nursery with seedlings appropriate for organic production and a simple processing and storage site. We have one of Kenya's largest coffee marketers ready to help us market the coffee and transport arranged through our supporter Fargo Courier.

SVR has three staffs who are PDC trained. One of the three staff has a wider experience in Permaculture including undertaking Permaculture consultancies in Kenya, Uganda and Rwanda. Another staff is also PDC trained professional Horticulturalist, and also a Project Monitoring & Evaluation (M and E) specialist. The third staff (Extension Worker) is also PDC trained and a professional environmental science graduate.

SVR is a PRI-Kenya partner organization and it is usually the face of PRI- Kenya in Western Kenya region.

Pretty JN, Noble AD, Bossio D, Dixon J, Hine RE, Penning de Vries FWT and Morison JL (2006). Resource-conserving agriculture increases yields in developing countries. *Environmental Science and Technology*, 40(4) 1114-1119