



Establishment of VKCs

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Village Knowledge Centers

1 Introduction

The demand driven and value-added knowledge systems will be very important in the future for the rural community to undertake informed decisions, especially, when resources are constrained and when farmers are vulnerable to climate change. Village Knowledge Centres (VKCs) can play a pivotal role in this case. VKCs are ICT digital platform-based linking farmers through smart phones and social media as a conduit for faster and effective information and knowledge. They have the potential to bridge the knowledge gaps, improve gender balance in agriculture extension. VKCs that are gender sensitive can be effective tools to empower the community with timely knowledge on various dimensions of agriculture and livestock, including, inputs, marketing and rural development.

VKC concept was developed and implemented in India by M.S.S. Research Foundation (MSSRF) in 1980. Since then, the Foundation has set up several VKCs in India (for e.g. the one in Figure 1). The overall response from farmers was observed to be positive. The VKCs adapted to the specific needs of farmers in particular villages/or districts. A main challenge of the VKC is the sustainability issue, and its continuity after funding from a particular source ends.



Figure 1: The VKC at Onangudi village in Pudukottai district, Tamil Nadu state of India

The establishment and functioning of VKC aims to bring knowledge revolution among the rural community that would, in turn, pave way for enhanced knowledge and farmer connectivity, increased income and reduced risks among farming community either directly and indirectly. A systematic process is followed to promote inclusive knowledge development and exchange in the village through a bottom-up approach. The need-based content generation and dissemination of knowledge is supported by appropriate information and communication tools (ICTs) ensuring connectivity and capacity building.

The dissemination of knowledge to farmers can also be done through other multiple communication tools such as notice boards, Public Address System, WhatsApp, Fixed Wireless Group Audio and Video Conferencing, Webinars etc.

2 VKC pilot projects

One of the InnovAfrica partner (NIBIO) leading this task (T6.1: establishing VKCs), has experience in VKCs from an earlier project (www.climaadapt.org) in India. Experience from ClimaAdapt project is being used to establish the two pilot VKCs, one in each of the case countries, namely, Kenya and Tanzania. One representative from each of the case country visited India (20-24th February, 2018) to get a first-hand experience on the VKC establishment, logistics, operation and monitoring in Trichy district, Tamil Nadu province, India. The trainings and interaction will help to establish the two pilot VKCs in InnovAfrica project sites (see the progress so far in Annex Table 1).

2.1 Kangundo village (Kenya)

The VKC will be established at Kangundo shopping centre which is the headquarters of Kangundo sub-county. The region has about 22,000 households engaged in mixed crop-livestock production. Maize is the most important cereal and is commonly grown as intercrop with beans, cowpea and pigeon pea at subsistence level. Fruit trees such as citrus, mango, avocado and pawpaw are important source of cash. Coffee is grown in the relatively wetter areas and is sold to provide income for the households. Livestock farming is a major activity and both the local zebu, exotic breeds and their crosses are reared for milk and meat. Other livestock include goats, sheep and poultry. About 6000 households are involved in dairy farming. Napier grass is widely grown feed for the dairy cattle but the poor and erratic rainfall in this region results to low productivity leading to feed scarcity. Crop residues are widely used to feed livestock during the dry season but are of low nutritive value and do not meet the animal protein requirements. Agricultural extension services are mainly provided by the government. However because the number of extension officer are few their coverage is limited and their effectiveness low. The village does not have a facility similar to VKC to enhance information and knowledge delivery to the farming community.

The main reasons for establishing VKC at Kangundo are:

- It is more centrally located and major shopping centre for the surrounding areas
- Kangundo is the sub-county headquarters and most farmers are likely to visit the VKC while going for other official purposes
- Kangundo sub-county has many farmers growing Brachiaria grass and dairy farming is an important activity for their livelihood
- The local authority organize an air open market once per week where farmers convene to market their farm produce
- It a good road network and thus is easily accessible
- There is good security since the government administration is located there

2.2 Ilenge village (Tanzania)

In Tanzania case, VKC will be set up in Ilenge village, with a total population of 870 people. It is located about 11 km from Tukuyu town in Rungwe District on the Mbeya-Malawi Highway. The main sources of livelihood include crop and livestock production. Crops grown include banana for household subsistence and market while tea and avocado are produced for

the market. The main types of livestock raised in the village are dairy cattle and pigs. Currently, the village does not have any facility that is similar to VKC. Agricultural extension services are operated by the government, and traditional in nature. Farmers depend on government extension workers to get advice and access inputs that do not reach often on time.

The reasons for selecting VKC in Ilenge village are:

- The village has a number of farmers who practice crop farming and livestock husbandry
- The Ward Resource Centre, which will house the VKC is located within the village
- The village is located near the Ward Cold Room which is under construction
- ASAS Dairy is planning to construct a milk processing plant in the nearby area
- There is also a plan to establish an international market for bananas nearby
- Nearby there is an office for Rungwe Avocado Company.
- ASAS Dairy has a milk collection centre nearby
- Services provided by all major mobile service providers/telecommunications companies (Vodacom, Tigo, Airtel and Hallotel) are easily accessible
- Farmers in the area can listen to national radio such as TBC FM and Radio Free Africa

3 Steps to follow to establish VKC

The following are the various steps followed so far, and also follow up in the subsequent years of InnovAfrica project.

Year	Steps to undertake
1	<ul style="list-style-type: none"> • Representatives from Kenya and Tanzania to get a first-hand experience/training of the VKC establishment, logistics, operation and monitoring in India (Month 09). • Select location, preferably a village/government building where farmers from other villages frequently visit • Organize meetings with local officials, farmer/women organizations to orient about VKCs and benefits. Explain concept of VKC, function and benefits to the community • Letter of interest to be obtained from the local leader/officials or others concerned • A joint preliminary survey of the village for exploring location of setting up the VKC • Conduct a feasibility (social profile, technical and physical) study by discussing with village leader, different interest groups in the village • Finalize the location, preferably a community or government building (where there is no need to pay monthly rent) and safety for the equipment is assured <p>→ (now establishment Phase of VKC starts)</p> <ul style="list-style-type: none"> • Identification of common building to access to all the sections of people irrespective of social class and gender • Identification of Knowledge Workers (2-3 youth from local area) build their capacity to manage the centre • Formation of VKC Management Committee (5-6 members) and conducting relevant training on General Management • Signing of a MoU between SUA/KALRO and the VKC committee

	<ul style="list-style-type: none"> • Establish the VKC (Month 10-11) and test working of the unit/upload software • Train the Village knowledge workers (from Month 09-11) • Upload content and start recruiting farmer members/keep gender balance
2	<ul style="list-style-type: none"> • Organize awareness meeting in the village (2-3) to explain about VKC • Conduct needs assessment and prioritizing the thematic wise needs • Development and dissemination of Knowledge Products • Meeting with strategic partners to provide user friendly content on a regular basis • Ensure Sustainability (Social, Human, Institutional, Physical and Financial factors) • Periodical Training of Knowledge Workers and VKC Management Committee • Open Days and exchange visits within the village and with local institutions • Assessment of VKC approach based on the set criteria • Assessment of the spreading of VKC based on the set criteria to other villages • A mid-term assessment of their performance, risks, usage, number of users and their profile
3	<ul style="list-style-type: none"> • Linkages with VKC Management Committee and Strategic Partners for continuity • Open Days and exchange visits within the village and with local institutions • Assessment of VKC approach based on the set criteria • Assessment of the spreading of VKC based on the set criteria to other villages • Exchange visits from neighbouring villages and authorities from government • Enhance involvement of local extension services, commit them to scaling-up efforts • Assessment of the spreading of innovations based on set criteria • First set-up and draft of the VKC Manual / Guidelines • Steps to ensure sustainability of VKC
4	<ul style="list-style-type: none"> • Handing over phase with technical support • Final assessment of the VKC approach based on the set criteria • Final assessment of the spreading of innovations based on the set criteria • Final validation and spreading of the VKC Manual / Guidelines

4 Capacity Building – on Village Knowledge Centres

To ensure a sustainable model of VKC, a package of training programmes is central to build the capacity of Knowledge Workers, VKC Management Committee, and Key stakeholders. The pragmatic experience of MSSRF over a decade on the hub and spokes model and exclusive know-how on VKC demonstration through ClimaAdapt project helped to consolidate the capacity building requirements of VKC. Capacity building plays a vital role to bring better realization and sense of ownership among the community, and thereby structural transformation for the continuation of VKC.

The target audiences for capacity development under VKC initiative will be: ***Knowledge Workers, Members of VKC Management Committee and service providers*** involved in establishing the VKCs. The first orientation program of the knowledge workers and VKC Management Committee is normally done in year 1 in which the participants are provided with necessary knowledge and skills required for establishing VKC.

Two types of training modules namely Fundamental Level Training and Advanced Level Trainings are developed as follows:

4.1 Fundamental Training

Fundamental training programme is a prerequisite to build basic capacity among the target participants to establish and manage the village knowledge centres.

4.1.1 Training on VKC Establishment

It is normally meant for key persons involved in establishing the VKCs. This module is essential to elaborate the procedures and process to be followed while establishing the VKC.

The training module encompasses the following major contents:

- (a) General Introduction of VKC – its purpose
- (b) Need for Community Participation - Ownership and community contribution
- (c) Process of establishing VKC – logistics and Tool kit
- (d) Action Plan

4.1.2 Training on General Management of VKC

Key and potential individuals who have been identified as Knowledge Workers and members of Management Committee will be given formal and informal skill development to accomplish the tasks in relation to operation and maintenance of VKC. These individuals must be empowered to interact with the end users from the community and other partners right from the beginning, which in turn make them to have a clear understanding of their roles and responsibilities to own and manage VKC, when the project is phased out. They will be oriented with values, expectations and power relations, in order to avoid unnecessary conflicts and egos. Keeping this in view, a training module has been designed and will be implemented in the two VKCs.

The important contents in this Module are stated below:

- (a) Introduction of VKC
- (b) Roles & Responsibilities of Knowledge Workers
- (c) Effective Communication
- (d) Need for Community Participation
- (e) Team Building & Conflict Resolution
- (f) Gender Sensitization

4.1.3 Training on Community Needs Assessment Tools & Techniques

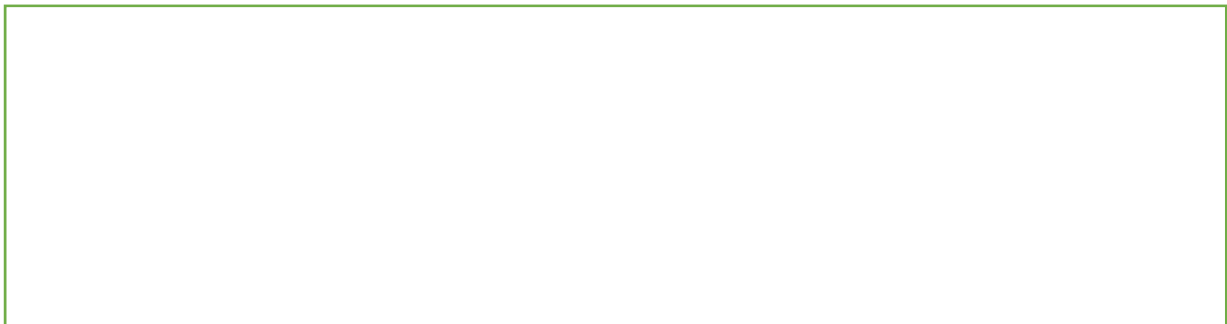
This is a 1-2 days training in which the methodologies to assess the needs of the community by adopting Participatory Learning and Action technique will be dealt. Field demonstration will be used as one of the methodologies during the training. The salient contents in the modules are given below: importance & need for Participatory Approach to assess community needs. This training will be done in early part of Year 2.

Introduction to Participatory Approach

- (a) Typology of Participation
- (b) Attitudes and Behaviors of Need Assessment Team and Community members
- (c) Definition of need, need assessments and its significance
- (d) Importance of gender in need assessment
- (e) Community Needs Assessment Tools & Techniques (Selective Tools of participatory rural appraisal)
- (f) Process of Categorizing, Collating & Prioritizing the community needs
- (g) Do's and Don'ts during community needs assessment

4.1.4 Training on Content Collection & Dissemination

Keeping the sustainability component in mind, it is necessary to train the knowledge workers on the content collection, its packaging and content dissemination. It is a 1-2 day training, which will have field demonstrations as one of the methodologies to provide hands-on experience to the knowledge workers. This training will orient the techniques and process of content collection from within the village and outside the village by networking with different departments. Scientists will be involved in this training as they form an important part of training. Different forms of communication used to disseminate the content will also be inculcated to disseminate the available content.



The contents of the training will be:

- (a) Introduction on content
- (b) Required skills for content development
- (c) Development of communication skills – oral, written & web for content development
- (d) Different source of collecting required content
- (e) Identifying, authenticating and packaging content for local community use
- (f) Multimedia documentation techniques
- (g) Strategies for disseminating the content

4.1.5 Digital Skills

Digital skills is one of the capacity building programmes to empower the knowledge workers on ICT. It is conducted with an aim to qualify knowledge workers who in turn can become a cadre of trainers to train interested youth and rural community including children.

4.1.6 Trouble Shooting Training

Since the whole concept of Knowledge Revolution among community members depends on ICT, the training on preventive and breakdown maintenance of computer is a desperate need. Therefore, it is also included in the framework of Capacity Building to train the knowledge workers and selected volunteers on trouble shooting techniques, factoring sustainability.

4.1.7 Entrepreneurial Skills

Any project, which is implemented at the village level, should be handed over to the community one day. It means the villagers should have a sense of ownership, which in turn helps them to continue with the similar, set up of VKC on sustainable basis besides helping knowledge workers to earn money. A set of online services forms part of this training programmes. Exposure visits need to be arranged to provide knowledge on entrepreneurship models.

4.2 Advanced Training

4.2.1 Institutional –VKC Management Committee

The focus on institutional building is now seen as one of the important components of the capacity building. Institutional support at different levels including at the village, block and district should be strengthened as specified in interlinking different entities for getting the needed information. It is also important to build the capacity of the community based organization that is created for managing the VKC by providing a legal framework which would elaborate the institutional responsibilities in terms of identification of potential members, power relations, group roles, meeting procedures etc.

The VKC Management Committee members will be trained on their roles and responsibilities, power relations with Village Resource Centre (VRC) or VKC and local administration. It will create a sense of ownership and commitment among the members, and mainly it is the impetus for the sustainability of VKC, even after the project is phased out. This programme will also include topics such as teamwork, conflict resolution, communication, and gender.

4.2.2 Training on Social Auditing

A social audit is a way of measuring, understanding, reporting and ultimately strengthening the social and ethical performance of VKCs towards knowledge revolution. A social audit helps to narrow gaps between vision/goal and reality, between efficiency and effectiveness. It is a technique not only to emphasize the actions to be carried out by the community but also the implementing organization till it reaches its phasing out stage. This technique provides the VKCs with an overview of how well it has addressed its core values within the community it serves, as well as its efficiency, effectiveness, and equity. It also values the voice of stakeholders, including marginalized / poor groups whose voices are rarely heard. Social auditing is taken up for the purpose of enhancing local governance, particularly for strengthening community participation with accountability and transparency.

- (a) The training is for one day for the target audience like Knowledge Workers, and VKC Committee Members.
- (b) Introduction, importance, objectives and advantages of social audit
- (c) Appropriate institutional level for social audit
- (d) Steps / process involved in social audit
- (e) Key Factors and Strategies for enhancing the local capacities for social audit

5 Monitoring and evaluation

Monitoring and evaluation (M&E) should be an integral part of VKC to keep track of the progress, maintain equipment, and evaluate performance at the end of each year. Any improvements to be made in the subsequent year should be based on the M&E exercise. A standard procedure for M&E can be developed that is easy to be implemented. It is not only the hardware, but also the social component of the VKC that is crucial for its good performance. For example, the way knowledge workers perform, motivate and reach out to farmers. If they are not motivated and committed, it will be a constraint for the VKC to function. Content development should be an ongoing exercise, and inputs from different sources are needed to develop a good content.

6 Risks

VKC are prone to several risks, and hence care should be taken from the beginning to ensure that potential risks are timely addressed. Some of the potential risks possible and measures to minimize the risks are mentioned in Table 1 below.

Table 1: Some of the potential risks and possible measures to minimize risks

Risks	Measures to minimize risks
<ul style="list-style-type: none"> • Knowledge workers moving out to seek new jobs 	<ul style="list-style-type: none"> • Hire two knowledge workers/or replacement plan • Adequate notice period to leave the job on the employee and employer side
<ul style="list-style-type: none"> • Power and net inconsistency 	<ul style="list-style-type: none"> • Install solar power/ inverter batteries
<ul style="list-style-type: none"> • Theft of ICT equipment 	<ul style="list-style-type: none"> • Locate in a public or community building that is safe from thefts
<ul style="list-style-type: none"> • Content development 	<ul style="list-style-type: none"> • Should be dynamic and from several sources);
<ul style="list-style-type: none"> • Funds for maintenance 	<ul style="list-style-type: none"> • Explore possibility of annual membership fees, service fees
<ul style="list-style-type: none"> • Sustainability of VKC after InnovAfrica ends 	<ul style="list-style-type: none"> • A well-defined exit plan, and handing over to local farmer and management committee in Year 4.

7 Gender and youth sensitization

Gender sensitization needs to be done at all levels of individual, institutional, users etc. Efforts are taken through training knowledge workers and VKC Management to orient them on gender integration. The socio-cultural taboos need to be identified in the areas where knowledge center exists in order to improve it through awareness creation and community participation for providing an enabling environment for all the section of the community to participate in the knowledge revolution.

8 Conclusion

The Capacity Building Framework of VKCs serve as a base to evolve an action plan for capacity building related activities. As it is a continuous learning and changing process, there may be possibility to add a few more or drop down certain programmes as opportunity and circumstances arises depending upon the field reality and periodical need assessment.

Annex

Table 1: VKC Progress in Year 1 in Kenya and Tanzania pilot projects

Progress	Kenya	Tanzania	Comments
Select location, preferably a village where farmers from other villages frequently visit	Kangundo shopping centre located in Kangundo sub-county	Ward Resource Centre at Ilenge village	Selected in cooperation with local stakeholders
Training of representatives from Kenya and Tanzania on VKCs in India (20-24 th Feb)	One scientist from KALRO visited India	One scientist from SUA visited India	Feedback was positive and scientists found it quite useful to get a first-hand knowledge of the VKC
Organize meetings with local officials, farmer/women organizations to orient about VKCs and benefits. Explain concept of VKC, function and benefits to the community	Conducted meetings with County, sub-County extension staff, local administration and explained the potential benefits of VKC. A meeting was also held with local Member of parliament, Kakuyuni dairy and representative of dairy value chain in the County	Conducted meetings with District extension staff and explained the benefits of VKC	This is to make sure that Extension staff are involved from the beginning and that VKC can be closely linked to ongoing extension programs wherever possible
Letter of interest to be obtained from the local leader/officials or others concerned	Letter of interest has been obtained from the Machakos County, Department of livestock	It is in process	Interest was expressed by the village leaders after consulting them on establishment of VKC
A joint preliminary survey of the village for exploring location of setting up the VKC	Meeting was held with local stakeholders and a consensus was reached on the location of establishing the VKC.	InnovAfrica team had discussions with the District staff on the idea of establishing the VKC. After consultations they suggested that the VKC be located at the Ward Resource Centre at Ilenge village.	Village Chairman and the Village Executive Officer were appraised of the VKC and its potential for the farmers in the region.
Conduct a feasibility (social profile, technical and physical) study by discussing with village leaders, different interest groups in the village	Feasibility was discussed in term of infrastructure (roads, internet facilities, telephone connectivity), availability of	Done	Overall, the local stakeholders expressed interest in the VKC

	government office, and other amenities and social facilities		
Finalize the location, preferably a community building easily accessible to all, where there is no need to pay monthly rent, and safety for the equipment is assured	The local Member of Parliament (Kangundo Constituency) has promised to provide office space for establishing the VKC where monthly rent will not be paid	Done	Agreement was reached after involving the village officials and government District staff
<i>(Now establishment Phase of VKC starts)</i>			
Identification of Knowledge Workers (youth from local area) based on a set criteria and build their capacity to manage the centre and train them (Feb to April, 2018)	Knowledge worker has been recruited competitively from 8 applicants. Training will follow to equip the worker with knowledge and capacity for running the VKC	A meeting was held with the village government represented by the Village Chairperson, Village Executive Officer as well as sub-village leaders. We deliberated on VKC and came up with a road map for its implementation, which includes recruitment of village knowledge workers	A plan of action for establishment of the VKC was agreed during the meeting involving village leaders
Formation of VKC Management Committee (5-6 members) and conducting relevant training on General Management	A 7 member (3 women and 4 men) interim VKC Management Committee members has been constituted. Training will be conducted soon	Agreed in the meeting with village government officials and District staff that members of VKCMC will be picked based on criteria to be established by the village government supported by District staff	Training of VKCMC members will be done after their selection
Signing of a MoU between the SUA & the VKC committee	-	It is in the process	To be completed once we get the approvals from both sides
Signing of a MoU between the KALRO & the VKC committee	It is in the process	-	
Establish the VKC in Month 11-12 and test the working of the unit/upload software, set up other logistics	All the equipment's for VKC have been purchased and will be installed by third week of May 2018	It is in process	A list of basic equipment for the VKC has been submitted to the SUA's Supplies Unit. Purchase is in process based on



			elaborate government procurement procedures
Upload content and start recruiting farmer members/keep gender balance	It is in process	It is in process	Local farmers groups/organizations will be involved