THE PLANT IS THE TEACHER
Farmer Field Schools in Rwanda
Repeat what Works!

March 2016
Center for Information and Communication in Agriculture - CICA/MINAGRI
Rwanda Agricultural Board - RAB
The Belgian Development Agency - BTC

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Welcome to the world of FFS

Where farmers are discovering what works and what doesn’t through observation & analysis empowering them for the future

The Government of Rwanda & the Belgian Development Agency BTC are proud to present this success story.

A story of repeating what works!
Taking Success to scale

**IPM Project: 2009 - 2011**
- **25,000 Farmers** (Achieved)
- Growth: 8500 new Farmers/Year

**SSPAT II Project: 2011 - 2016**
- **200,000 Farmers** (Achieved)
- Growth: 35,000 new farmers/Year

**Twigire Muhinzi Project: 2015 - 2019**
- **1,690,000 Farmers** (Target 2020)
- Growth: 300,000 new farmers/Year
Now, in 2016, I have facilitated 13 groups with in total 408 members. Training farmers has become my profession! Together with my fellow facilitators in the district we formed a cooperative. We work now as a professional service provider for the Government and for others. My life has changed completely. And I am so glad I can change the life of so many others!“

“My name is Clemence. In 2009, I was selected to become a FFS facilitator. I followed many months of training to build up my technical and facilitation skills. While I was still in training, I started to facilitate my first group of 29 farmers.

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The Principle of FFS

**The plant is the teacher**

“In the Farmer Field School (FFS) approach, we learn from what we experience. First of all, we are farmers and we have learned from all our years that we farm. All our individual experiences, good and bad, are valid to learn from. By observing and analysing the plants, we discovered so much! Every week we learn from the decision we took the week before. It truly empowered us to take smart decisions. FFS is such an interesting way to learn and to improve. Just look at the amazing results we achieve!”

And I facilitate the learning process!

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FFS is not new...

Farmer Field School is a proven methodology, applied in more than 90 countries

FFS in Rwanda respects the key principles of FFS:

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
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<tbody>
<tr>
<td>Learning by doing</td>
<td>Adults learn better through experience rather than passive listening at lectures and demonstrations.</td>
</tr>
<tr>
<td>The content of every FFS is unique</td>
<td>Farmers decide what is relevant and what FFS should address.</td>
</tr>
<tr>
<td>Learning from success and mistakes</td>
<td>Each person’s experience of reality is unique and valid.</td>
</tr>
<tr>
<td>Learning how to learn</td>
<td>Farmers build their capacity to observe, analyse, and make conscious decisions.</td>
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<tr>
<td>Problem posing/problem solving</td>
<td>Problems are posed as challenges not constraints.</td>
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<tr>
<td>Farmers’fields are the learning ground</td>
<td>The field/crop or livestock production system is the main learning tool.</td>
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<tr>
<td>The trainers are facilitators not teachers</td>
<td>Because their role is to guide the learning process.</td>
</tr>
<tr>
<td>Unity is strength</td>
<td>Farmers in a group have more power than individual farmers.</td>
</tr>
<tr>
<td>All FFS follow a systematic training process</td>
<td>Key steps are observation, group discussion, analysis, decision making, and action-planning.</td>
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Repeat What Works!

Proven Effectiveness
Quality of work!

Unlocking the power of the peer trainers
They know best what is needed
Fellow farmers trust them

...but FFS in Rwanda has important innovations:

FFS Facilitators are always farmers

FFS Facilitators become professional extension agents

They facilitate new groups every season
They are organized in Facilitator’s Cooperatives
They are paid as professional service providers

Increased Efficiency
Higher value for money

Innovate!
And FFS in Rwanda applies home grown solutions

Imihigo in the Government
Imihigo in kinyarwanda means to vow to deliver. Today, Imihigo is used across government as performance contracts.

The objectives of imihigo include:
- To speed up implementation of development agenda
- To ensure stakeholder ownership
- To promote accountability and transparency
- To promote result-oriented performance
- To promote determination to achieve set goals
- To instil the culture of regular performance evaluation

Imihigo for FFS
The FFS Facilitator’s Cooperatives signed a tripartite contract with the District and the Rwanda Agricultural Board.

The FFS Facilitator’s Cooperatives commit
- To create a set number of new FFS groups
- To provide training and backstopping for the Farmer Promoters

The contract are considered as Performance Contracts (Imihigo). The cooperative is only paid after verification of the results achieved in a detailed field assessment.

Localize !
Home grown solutions
Sustainability

1 www.rwandapedia.rw
How to reach every Farmer in Rwanda?
TWIGIRE MUHINZI (2015 - 2019)

A Rwandan home grown solution to increase farm yields and foster solidarity

Reach all farmers immediately through Farmer Promoters (FP) and Demo plots

Reach all farmers gradually through Farmer Field Schools (FFS)

Farmer Promoter (14,600)

FFS Facilitators (5,000)

FFS facilitators train Farmer Promoters in the establishment of DEMO plots, based on FFS best practices

FFS Facilitators facilitate the learning process in the FFS groups

Farmer Promoters facilitate access to inputs and invite all farmers to visit the village demo plot 3 x per season to learn good agronomic practices

FFS group members work every week in the FFS plot and get deep understanding of crop production through observation & analysis

For more information, read the full article further in this notebook!
How does FFS work?
FFS is ‘Learning by doing’

FFS is a group based learning approach that teaches farmers how to experiment and solve problems independently. Members of an FFS group meet every week with a facilitator to observe, analyze, discuss and decide what to do. The plant is indeed the teacher and the facilitator’s role is not to lecture farmers but to guide them through a learning process.

Any FFS program starts with an intensive training of elected farmers to become good facilitators. This is done by qualified FFS Master Trainers who teach the new facilitators technical skills, facilitation skills and group dynamics.

As part of the training process, facilitators work with their first FFS group where they facilitate the ‘learning by doing’ process and supervise season long experiments in the FFS field plot of the group. So also the facilitators learn their skills by doing! After graduating, the FFS facilitators continue to work with new FFS groups every season.

Season long training in the FFS experimental plot

Land Preparation  Planting  Follow up the growth  Harvest
Qualifed FFS Master Trainers train the FFS Facilitators.

Learning takes place in the TOT learning plot.

FFS facilitators work together in the TOT learning plot.

Training per month.

FFS facilitators train the farmers.

Learning takes place in the FFS learning plot.

Group members work together in the FFS plot.

©BTC/Dieter Telemans
Two levels of training

Training of FFS Facilitators
- FFS facilitators are organized in “Training of Trainers (TOT)” groups
- Qualified FFS Master Trainers train the FFS Facilitators
- Learning takes place in the TOT learning plot
- FFS facilitators work together in the TOT learning plot
- Season long process
- 1 to 2 weeks training per month

Training of Farmers
- FFS farmers are organized in FFS groups
- FFS facilitators train the farmers
- Learning takes place in the FFS learning plot
- Group members work together in the FFS plot
- Season long process
- Half a day training per week
Discovery-based Learning

Observe & Record

Act

Analyse

Draw, Discuss & Decide
The layout of a typical FFS learning plot of a group

Example of a typical weekly FFS session

6:30: Opening prayer
6:35: Group dynamics
6:40: Attendance
6:45: AESA
7:30: Implementing AESA decisions
8:45: Special topic
9:40: Group building, savings & income generating activities
11:00: Closing prayer
Integrated Pest/Crop Management (IPM/ICM) forms the technical basis of FFS

THE PRINCIPLES

- Proper site selection
- Proper land preparation
- Good planting material
- Right spacing between plants
- Timely planting at right planting depth
- Timely weeding and weeding frequency
- Mulching and use of cover crops
- Pruning and de-suckering
- Good water management
- Regular field observation to allow early identification of a problem
- Conserving genetic diversity
THE RESULTS of IPM/ICM

- A healthy crop
- Conservation of natural enemies
- Reduced pesticide use
- Control of pest and diseases

- Improved soil fertility
- Increased production
- Higher productivity
- Farmers become experts!
Exciting tools used in FFS
Agro Eco System Analysis (AESA)

The main tool for discovery based learning

Why doing AESA?
- Promote farmers learning by discovery
- Encourage farmers to make their own analysis
- Allow farmers to Critically analyze and make better decisions on their own fields
- Drawing and understanding morphological parts of a plant and their uses
- Familiarize FFS members to describe field situations

How?
- Farmers observe plants in very detail
- They measure plant growth and discover insects, spots on leaves, etc.
- They draw the plant and write down all findings
- They present their finding and recommendations to group members and decide together what to do

When?
- Every time the group meets in the FFS field plot
Ballot Box Test
An important tool to evaluate what group members know

Why doing ballot box tests?
• Because it is a fun way to evaluate what farmers know!
• Because everyone can enjoy this kind of tests!
• Because it is really practical and it is about real plants, insects, weeds,…
• Because it encourages critical observation

How?
• Select relevant specimen of insects, weeds, disease symptoms, fertilizers, soils samples etc.
• Prepare questions with 3 possible answers of which only 1 is correct
• Use plastic bottles and strings
• Set up 10 to 20 questions for a moving exam
• After all participants had a change to cast their votes, discuss the results

When?
• When you do a similar test in the beginning and the end, you can evaluate progress
Insect Zoo Experiment
An important tool to learn about the behavior of insects

Why doing Insect Zoo Experiments?
- Farmers learn about the behavior of insects
- Differentiate “Good” from “Bad” insects
- Learn about biological control
- Reducing the use of insecticide

How?
- Farmers observe what insects do to their plants and too each other.
- Put plants leaves and various insects in plastic bottle & observe what happens
- Analyse what you have seen decide what to do
- Sometimes, an insect zoo is just happening without setting up an experiment (Ants attack a caterpillar)

When?
- Whenever you find insects that you are not familiar with
“I really loved the ‘insect zoo’ experiments in which we put bean leaves with plant lice on it together with a ladybird beetle in a bottle and we checked what happened. The plant lice sucked the sap from the leaf but the ladybird beetle ate all the plant lice! That is how we learned which insects attack our plant and which insects are our friends. Learning how to observe makes us confident that we are now better prepared for what the future will throws at us.” says Thomas Habanabakize, FFS Facilitator in Ngoma District.
Results of FFS
What do farmers say?

98% of FFS farmers are very satisfied with the skills and attitude of the FFS Facilitator

70% of the FFS farmers apply what they have learned in their own farm

76% of FFS farmers report that productivity has increased by at least 50%

73% of farmers report that farm revenue has increased by at least 50%

Data from Mid Season assessment 2015B with 2924 FFS groups

What did we measure?

**Harvest Survey results (2015B)**

- 73% of FFS Farmers apply Good Agricultural Practices (GAP) vs. 38% of the non trained farmers
- Production increase of FFS Farmers (compared to non trained farmers - measured on a scale, average for all crops) +37%
- Production increase of FFS Farmers who apply GAP compared to all farmers who don't apply GAP +82%
- Value of additional production per Hectar €300
- Total value of additional production of 200,000 FFS Farmers €20,000,000

Data from the Harvest Survey 2015B with 1400 Farmers
FFS is more than learning alone

Apart from experimental studies in the FFS plot, most groups also have other activities that help to build a strong group:

**Savings**
- Monthly contributions
- Group members borrow money from the group for a small interest
- They can later decide how to use their savings

**Income generation**
- Leasing a field and grow a particular crop for sale and money goes to group account
Organized Farmers 
= A result on itself

Groups are an entry points for many additional topics. FFS groups discuss these as special topics during their weekly sessions.

FFS groups can invite trainers for specials topics. Some FFS Facilitators are also trained in special topics:
- 60 FFS Facilitators are trained as HIV Peer Educator
- 300 FFS Facilitators are trained as Gender Peer Trainer
Sustainability !
FFS groups are sustainable

3 year old groups (and older) are still active!

86% of FFS groups created between 2009 and 2012, have still an experimental FFS plot in 2015 & the groups meet weekly.

Older groups can sell more of their production to the market

Groups that can sell more than 50% of what they produce on the market:

- 18% of groups created in 2015
- 51% of groups created in 2013 - 2014
- 80% of groups created in 2009 - 2012
Repeat what works to get **RESULTS**!
Innovate to get more VALUE FOR MONEY!

The Plant is the Teacher
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
71% of FFS groups have internal **savings** (=Social protection)

22% of FFS groups have an extra **income generating activity** for the group
**Conflict management** is sometimes a special topic on FFS meetings. The farmers in the picture are acting. In the discussion that follows they learn that a group with a lot of internal conflicts is vulnerable and outsiders will take advantage.
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
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Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
At the end of their training, FFS Facilitators officially graduate and receive a **certificate**.

In each district, the FFS Facilitators have formed a cooperative to be able to work as **professional service provider**.

The cooperatives of FFS Facilitators have signed **performance contracts** with the District and the Rwanda Agriculture Board.
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!

The Plant is the Teacher
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The Plant is the Teacher
Repeat what works to get RESULTS!
53% of FFS group members are women.
28% of FFS facilitators are women.
Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
Production increase for **FFS Farmers** (compared to control group: 18.8 vs 11.2 Ton/Ha)

68%

Production increase for **direct neighbours** of FFS Farmers (compared to control group)

8%

Data from a study in 2013 with 160 farmers
The Abishyizehamwe FFS group in Mutenderi sector in Ngoma district, who is working on soybean has planted a forest as group activity to generate income.
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!

The Plant is the Teacher
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
The FFS plots where FFS groups meet are in the village. This makes it easy for everyone to participate every week. Mothers often bring the children to the meetings.
FFS Facilitators
= Key persons for 2-way communication with farmers

Centre for Information & communication
- Training booklets
- Training videos
- Radio shows

Extension Website
http://nozubu.minagri.gov.rw

Facilitators access the website dedicated to extension workers and call the HOT line

2 way communication by SMS
Innovate to get more VALUE FOR MONEY!
Notes

Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
These soybeans are carefully counted. This allows for an exact comparison between different varieties.
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
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What makes FFS different?

Farmers are **empowered**
to make their own decisions.

Farmers **find solutions**
for their own problems.

Farmers are **prepared**
for the challenges
of the future.
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
What is the most important reason for farmers to join an FFS group?

- **38%** says to belong to a strong group where members can **help each other**
- **33%** says to have more **food for the family**
- **29%** says to be able to **sell more products** to the market
The roles of men and women are discussed as special topic in FFS group meetings.
Repeat what works to get results!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
The Key Success Factors in FFS

**FFS Facilitators are intensively trained**
Facilitators become the new style of proximity extension workers in their community. Season after season, they work with more and more groups. That is the reason why we invest a lot to train them up to a top level! Never jeopardize the intensive training of new facilitators!

**Building decision making skills of each farmer**
In the FFS approach nothing is taken for granted. Each group manages their own experimental learning field where varieties and agronomic practices are tested and compared. Each FFS group member is involved in must monitoring everything that happens in a part of the plot. By season long evaluations, all farmers build up a deep understanding of the factors that influence agricultural production. Each group must have their own learning plot and all farmers must participate; No exception to this rule!

**Explicit focus on building strong groups**
From the very start, the importance of building a strong group is a key aspect of the training. Group dynamics is an integral part of the training curriculum. Singing and dancing are part the of Rwandan culture and play a crucial role in FFS groups as well. It is the effort in creating strong groups that pays off in terms of social benefits. Always keep group dynamics high on the agenda. Never underestimate its importance.

**Always analyze the specific needs**
The work with every new group starts with making a needs assessment. The group decides which challenges need solutions. Good agronomic practices are generic, but a farmer should not just be told what to do. Always allow farmers to discover by themselves and to find the solutions for their challenges.

**Keep having fun**
Having fun is a crucial part of FFS. Farmers enjoy themselves while singing, dancing, doing group exercises and by working together. The experiments can also be fun, like observing which insect might eat the other insect in the insect zoo experiment.
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!

The Plant is the Teacher
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
Notes

Repeat what works to get RESULTS!
Repeat what works to get RESULTS!
This article about Twigire Muhinzi is published in the MINAGRI book (2016)
TWIGIRE MUHINZI:
Homegrown solution to increase farm yields and foster solidarity

Twigire Muhinzi is the home-grown decentralized, farmer oriented national agricultural extension and advisory services delivery model of the Rwanda government.

The idea is that if one farmer in a village is empowered with better skills to improve his yield, neighbors too will learn from him or her. Thus the Farmer Promoters program was born, with the motto, ‘Seeing is Believing.’ At the same time, it was recognized that farmers also need to get in depth knowledge to understand why certain technologies work better than others. And so the Farmer Field School (FFS) Approach was born, with the tagline “The plant is the teacher”.

©BTC/Raf Somers
How it works

The farmers are organized into farmer groups to serve as the entry point for extension services. Each village identifies one volunteer farmer promoter through a participatory exercise. The farmer promoter are given extension materials as well as basic training in improved agricultural practices. They then sets up a demonstration plot to cultivate crops using the methods he or she learnt.

Three times in a season, other farmers visit the demonstration plot to learn how to improve their own farming practice. Thanks to the application of good agricultural practices (GAP), the demonstration plots will have higher yields than the farmers’ fields, thus convincing the other farmers to take up the improved farming practice in line with the ‘Seeing is Believing’ motto.

The farmer promoter also mobilizes the farmers for increased use of improved seeds, fertilizers and other farm inputs.

Simultaneously, farmers get the opportunity to join an FFS group in which they will build up their decision making skills based on observation and analysis of the plants.

“The plant is the teacher” and the FFS Facilitator is there to guide the learning process. Like the Farmer Promoters, the FFS Facilitators are selected by the community to become frontline extension agents. The difference is that FFS Facilitators receive a much more intensive season long training that not only equips them with strong technical skills, but also empowers them to be become true facilitators of a learning process. A critical part of their training involves understanding adult learning, knowing how to make their groups lively and interactive, developing appropriate facilitator attitude and knowing on how to deal with questions for which they don’t have the answer.
Mr. Claude Ngerageze is a Farmer Promoter in Nduba sector, Gasabo District, Rwanda. Previously, Claude and other farmers in his village knew very little about the application of good agricultural practices. This changed once Claude was nominated by his fellow farmers to serve as a volunteer village extension agent, locally known as ‘Umujyanama w’ubuhinzi’. What motivates me to serve as a volunteer farmer promoter is the training I receive and the opportunity and honor to teach good agricultural practices to other farmers, as well as being a model farmer in my village.”

Before becoming a farmer promoter in 2012, Claude’s harvest was poor. He was a subsistence farmer with low yields. “Thanks to the training I have received under TWIGIRE MUHINZI, I am now very well informed on the proper way of producing crops, especially beans and vegetables. As a result, I am now able to produce enough for my family consumption while also selling the surplus”. “I have improved my household’s standard of living; we now live in a big cement house and we are food secure. I have helped many farmers in my village to adopt good agricultural practices on their farms. For instance, beans grown on an area of 10×10m produce 50kgs yields, which previous took an area of 15×30m,” Claude says.

Claude is very proud of the award he received from the Ministry of Agriculture and Animal Resources for being among the best farmer promoters in the country.

The Butare cell executive officer where Claude lives is very appreciative of Claude’s work. He states that farmers who have been trained by Claude and other Farmer promoters have had a significant increase in agricultural incomes. Farmers served by farmer promoters talk of impressive results associated with TWIGIRE MUHINZI. They say adoption of improved farming methods have had a good impact on improved productivity and their livelihoods. Some have upgraded their residential houses, ventured into livestock farming and engaged in off farm activities.

Why it works
The major advantage of these methods is that farmer promoters and FFS facilitators are fellow farmers and thus the farming community follow them effortlessly. In addition, the farmers easily believe more in them than someone from elsewhere. Moreover, with the success on the demonstration plots and the FFS learning experience, farmers witness firsthand the efficiency of improved farming methods.

The power of combining two approaches
The Twigire Muhinzi model builds on the best of the Farmer Promoter and the Farmer Field School approaches. Both approaches are implemented by RAB, with the support of One Acre Fund and the Belgian Development Agency BTC respectively.
But in a spirit of 1+1=3, the combination of these models results in a very cost-efficient and effective way to reach out to all farmers in Rwanda and to effectively transform Rwandan agriculture from the bottom up. The strength of Twigire is for example that the FFS Facilitators also impart farmer promoters with knowledge and skills through trainings on how to set up a demonstration plots and farmer promoters also join FFS groups. On the other hand, the farmer promoters work hand in hand with the FFS Facilitators in mobilizing all farmers in the village to visit and learn from the FFS plots. So collectively, the farmer promoters and FFS Facilitators form a powerful nationwide network of frontline extension agents.

Proof that it works
The implementation of both approaches has led to considerable increases in crop yield and farm income but there is more to it. A very important result of TWIGIRE MUHINZI is that all farmers will fully benefit from the Farmer Promoters and FFS approach. To achieve this goal, the frontline extension agents (FPs and FFS Facilitators) need to remain motivated, active, and passionate to continue serving the farming community. Although farmer promoters are volunteers, an attractive performance based incentive scheme is put in place. This includes a minimum package (Boots, T-shirt, protective gear etc...), seasonal prizes based on competition within the sector as well as financial bonuses based on seed and fertilizer sales in the village.

For the FFS facilitators, the situation is different. As so much is invested in their training, they were encouraged to organize themselves as professional service providers. From 2016A season, 28 cooperatives of FFS Facilitators have signed performance contracts with their respective districts and RAB in which they commit to provide training and backstopping for the Farmer Promoters and to continue to create new FFS groups.

**Twigire Muhinzi Projection (2016 -2019)**

<table>
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<tr>
<th>The goal</th>
<th>Reaching 1,500,000+ farmers</th>
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<tbody>
<tr>
<td>Annual</td>
<td>Implementation cost</td>
</tr>
<tr>
<td>USD 20 million</td>
<td>(Rwf14 Billion)</td>
</tr>
<tr>
<td>Outcome</td>
<td>USD 400 million (Rwf300 Billion) additional annual farm revenue</td>
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Under FFS, farmers are researchers

The morning sun shines gently upon the bent backs of 20 men and women as they go about weeding their learning plot. Suddenly, a voice shouts: “Come see what I have found! This is not rice,” says a youthful man wearing a white T-shirt.

“But it looks exactly like rice,” his colleagues reply, doubtfully. They do not want to uproot a genuine rice crop. “Why do you say it is not rice,” asks the group’s facilitator, coming closer. “Look at this plant’s stem. It is totally smooth! The rice we planted is hairy,” he explains the man who made a discovery.

The other farmers look closely. He is right.

“It is a weed!” they declare, while uprooting it. The Facilitator gives them another proof. Rice has ligules; the new crop does not. It is definitely a weed.

Ligules. The farmers have never heard of them before. They are learning something. They observe the ligules carefully as the facilitator explains in more detail what they are. The secretary asks for the word’s spelling, writes it down, and draws a small sketch to indicate where ligules are found on the anatomy of the rice plant.

This sort of discovery by observation is typical of the FFS experience for the members of a FFS group. Today, as they do once each week, they have come to their FFS learning plot for their weekly meeting where they study the effect of different farming practices on their output. In fact, the farmers are truly researchers in their own right.

The FFS learning field is the ‘laboratory’ where farmers study what works and what doesn’t. Therefore, the learning Fields are sub-divided into many subplots.

For instance, in the first subplot, they have planted a new rice variety called “Insindagirabigega”. They want to see how it compares in yield with the varieties they normally plant.

In the next sub-plot, they were testing the impact of mechanized weeding compared with the traditional methods.

“We used Buryohe, a variety of rice we normally plant, and that we know more about. But we only
changed one variable: we increased
the spacing between rows (15cm
by 30cm instead of the usual 20cm
by 20cm) because we wanted to
use a machine for weeding instead
of the traditional hand hoe.”
Mukandoli Theresa, a member
of Dutsindubukene FFS group
explains.

Another plot examines the use
of fertilizer. The control subplot only
has manure applied.

The next has manure and the
recommended fertilizer applied
after two weeks of planting;

the third has manure and half the
recommended amount at the time
of planting;

the fourth has manure plus half
the recommended amount at two
weeks after planting, and finally,
the last has manure plus the
recommended amount fertilizer
used at the time of planting.

At the end of the season, farmers
will observe the yields and make
informed decisions based on their
observations.

The main feature of FFS is
that farmers are facilitated to
learn through comparison and
observation. The classroom is the
field, the plant is the teacher.

“We try to ensure that every
farmer participates in all activities in
the learning field, that they ask all
the questions they might have and
so on. All farmers have to leave with
the same level of knowledge as their
peers, and we cannot go from one
plot to the other until everyone has
understood the day’s lessons,” says
FFS facilitator Therese Mukamana.

The biggest proof that FFS works
is the fact that farmers once enrolled
stick to it faithfully. A recent survey
(June 2015) indicates that 86 per
cent of FFS groups that started
between 2008-2012 are still active,
still maintain their learning field,
and continue to compare, learn
and experiment,” Joseph Higiro,
FFS National Coordinator at RAB.
Repeat what works to get RESULTS!
Innovate to get more VALUE FOR MONEY!
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Innovate to get more VALUE FOR MONEY!

The Plant is the Teacher
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The training for private seed growers organized by the Rwanda Agriculture Board is based on the success of the FFS. This article about Twigire Muhinzi is published in the MINAGRI book (2016)
“No, Agronome, we can do it differently!” interrupts a seed producer, in response to a statement by a trainer from the Rwanda Agricultural Board (RAB) on how to deal with weeds in her plot.

Then tell us how you would do it, and give us your reasons for the method you choose,” the RAB trainer responds.

The seed producer proceeds to state her case while the rest of the participants listen carefully.

The scene of this exchange is a training session in Kinigi for a group of private seed potato producers from the Northern Province. This particular day, the group is visiting the field of Musabyimana Emmanuel and members are discussing two crucial issues: weeding and the proper use of fertilizer and manure.
The very idea of a rural seed producer expressing disagreement with an official from a government body over technical matters would come as a surprise to many, and yet this sort of frank exchange is a routine occurrence in the seed producers’ meetings.

After the seed producer’s submission, the group engages in a lively discussion of both proposals before coming up with a solution that satisfies everyone. The less experienced seed producers listening with interest to the more experienced ones.

“When we are in the field, we are very open with each other. That is the best way to encourage learning. Even when they do not follow our recommendations exactly, they tell us why; then we have a discussion and together come up with a way forward,” says Aloys Musabyisoni, trainer from RAB.

This scene is typical of the interactive training methodology that was developed by picking best lessons from the successful Farmer Field School model that is characterized by observation and open discussion among group members, and then modifying it to suit training for private Seed producers.

The training programme of private seed producers is accompanied with other initiatives to improve the seed value chain; preparing the seed sector in Rwanda for a future with increased regional harmonization of the seed trade regulations that require a strong and independent Seed Quality Control System.

In partnership with the Belgian Development Agency (BTC) under the Support to SPAT II Programme, MINAGRI and RAB are developing the capacity of private seed producers to produce high quality certified seed. According to Musabyimana Emmanuel, a seed producer: “My harvest has gone up significantly ever since we started receiving training. As a result, my income has also improved and I can afford a better lifestyle.” Banzamihigo Aaron, another seed producer, says what he likes most about the training is the fact that he can share experiences with fellow seed producers. “You might think you are facing a new problem, yet one of the members faced it before and can give you good advice,” he explains.

**Key Facts**

**On the training program for Private Seed Producers.**

- Builds on best practices from the FFS and adapted to the specific needs for seed producers.
- 33 seed producer groups in Rwanda, including 365 registered seed producers.
- Each group meets in the seed producers own fields at five critical stages during the growing season.
- Trainers: RAB crop experts, seed producers themselves, “fields and plants”
- Interactive and practical hands-on training methodology tailor made to the specific needs of each group through group discussions, sharing of experiences, questionnaires and ballot box tests.
Repeat what works to get RESULTS!
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Repeat what works to get RESULTS!
A farmer promoter and an FFS Facilitator assess the status of the maize demo plot. At the start of the season, the Facilitators train the farmer promoters on how to set up the demo plots. During the season, they continue to provide technical backstopping.
The sector agronomist takes the FFS Facilitators along while visiting farmer promoters. Together they assess the status of the demo plots. An example of practical collaborations that work at grassroot level!
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Success Stories

Be inspired by the success stories of these facilitators and their groups!
A women full of confidence

Ms Modeste UWAMAHORO
34 year old cassava facilitator
from Kamonyi district

MY STORY

“I was chosen by the district in August 2012 to start with the FFS training in cassava. I was just a normal farmer, but maybe they saw that I had confidence to train and coach others. After the training, I started facilitating 1 group in better & more productive agricultural techniques. I also applied what I had learned at home and the production increased. The neighbours saw the difference in my household because now we are eating better & our living conditions improved. That is why they started copying the FFS techniques. I developed a higher self-esteem because other women came to me for advice. I can openly talk to people instead of being just a mother at home taking care of the children. Now my husband is also caring for the family and I am surprised that he is a good cook”

“Now my husband is also caring for the family and I am surprised that he is a good cook!”
Icyerekezo
Farmer Field School
group in cassava
Kabagari sector

We are researchers!

“Icyerekezo
Farmer Field School
group in cassava
Kabagari sector

We are researchers!

Our Story

When we started as a FFS group in 2012, we compared different cassava varieties on our experimental plot. We saw that the local varieties were doing much better than the varieties we were using before, even with the same amount of mulching & fertilization. Our production was five times higher than before and these local varieties are disease resistant. Thanks to this success, we could buy land to produce even more cassava. We have become examples for our neighbors because now we are out of poverty! We were able to improve our nutrition, buy new clothes, mattresses, and even cows ... Above all, the group connects people together. We are taking care for each other. And we will continue to do our own research.

“We selected the best local varieties and the harvest is five times more than before.”
Female members from 5 Farmer Field School groups in Gashanda sector
All active in banana

OUR STORY

We started with the FFS activities in 2010. Before that, we used to stay at home and our husbands went to the farm. We actually did not know what was going on in the field. But our FFS facilitator learned us good agricultural practices to produce bananas. After harvesting, our husbands saw the change: instead of saving 500 RWF on each banana bunch, we could save up to 6000 RWF! Now we are training everyone in our family how to produce bananas. Before FFS, we were poor, but now we are somehow rich. Instead of depending on our husbands, we can buy our own clothes, and even buy clothes for our husbands. We are proud that all group members can all pay the school fees for the children and provide healthy meals for our families! Most of all, we are proud that we can make our own decisions!

“Before FFS, we never went to the banana field. But now we are training everyone in our family how to produce banana”
Discovering the seed market

**OUR STORY**

We started as a FFS group in 2009. Before FFS we were also growing potatoes, but we were using a lot of seed and energy, while the production was low. Thanks to FFS our production increased a lot. Our group was strong and in 2010 we received an official cooperative certificate. Our facilitator trained us how to produce potato seed as well as how to store it in a good way. We all worked hard to contribute money to buy land for seed production & to build a store. Potato seed has a good price on the market and our income increased a lot. Some of the members of our group are affected by HIV. We are proud that as a group we could buy cows for them. The daily fresh milk helps them to fight malnutrition. We are really committed on helping & supporting each other. Every week we visit a member of the group to see if we can do something to improve the family’s life.

“Potato seed has a good price on the market and our income increased a lot.”

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Tuzamuranebahinzi
Farmer Field School group
in Busasamana sector
Active in potato since 2009
We became entrepreneurs

Ingelimubuhinzi
Farmer Field School group
Muko sector
Active in tomato & potato
since 2010

OUR STORY

We started as FFS group in 2012. Our facilitator trained us in tomato and potato. As such, we can change both crops according to the season. With the income from the tomato production, we bought 3 pigs. They produced piglets which we distributed to all members of the group. Now we all have organic fertilizer and we started a business of selling piglets to other farmers. So thanks to FFS, we were able to develop a business and earn a lot from that. We also developed a saving scheme to help 1 group member each month. In the future we hope that all group members can have a cow as well to start the same business. We are now smart in our way of thinking, we see business opportunities!

“Thanks to FFS, we were able to develop a piglet business and earn a lot from that”
Mr Thomas NIZIYIMANA  
56 years old banana Facilitator  
in Nemba sector

I was elected as facilitator by other farmers

"The local leaders thought I was lying. But I showed them that I can even produce big banana bunches on bad land."

MY STORY

The first time I heard about FFS was when another FFS facilitator came to our community to mobilize all farmers to fight banana diseases. When I went back to my farm, I did what that FFS Facilitator had explained. Then the farmers in my area elected me to go to the FFS banana training for new facilitators. They thought I was a good example farmer in different crops and capable to train them when I would be back from the training. Now I facilitate 4 FFS groups and I also assist other neighbors who need my advice on good banana production. I have developed many skills and I receive many visitors. I have gained decision power in the community because I showed them that I could even produce big banana bunches on bad land. They were so surprised that they gave me a certificate to talk about the banana disease BXW in the whole sector. I am really happy now and have a lot of motivation.
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Repeat what works to get RESULTS!
Farmer Field Schools (FFS) in Rwanda (2016)

- **2531** **FFS FACILITATORS**
  - graduated after season long training & coaching

- **28** **FFS FACILITATOR’S COOPERATIVES**
  - with 2300 members working as Professional Service Providers

- **200,000** **FFS FARMERS**
  - empowered to take smart decisions

- **50%** **OF RWANDAN VILLAGES**
  - benefiting from at least one FFS group in the village

- **+37%** **PRODUCTIVITY INCREASE**
  - what FFS farmers produce more than other farmers

**VALUE OF ADDITIONAL ANNUAL PRODUCTION OF FFS FARMERS**

€ 20,000,000