A

Fostering Sustainable Agriculture Through Integrated Farm Plans

ALTERRA



The PIP approach is an innovative way of transforming small-scale subsistence farm households into more productive and sustainable farms. It is based on a visionary Integrated Farm Plan (PIP in French acronyms) which is developed and drawn on a map by all family members, as well as a concrete action plan how to realise that vision. Changing farmers' mindsets by motivating them to transform their reality by conscious collective action is at the core of the PIP approach. As such, the PIP builds a foundation for entrepreneurial and sustainable farming, i.e. Market Oriented Resilient Agricultural Production Systems. The approach is currently being implemented in Burundi.

Résumé

L'approche PIP est un moyen novateur pour faire passer les producteurs d'une agriculture de subsistance de petite échelle à une agriculture plus productive et plus durable. L'approche est basé sur un Plan Intégré du Paysan (PIP) visionnaire. Ce plan est développé et dessiné sur une carte par tous les membres de la famille en combinaison avec un plan d'action concret comment réaliser cette ambition. Changer les mentalités des agriculteurs en les incitant à transformer leur réalité au travers d'une action consciente et collective est au cœur de l'approche PIP. Le PIP est la base pour les Systèmes de production Agricole Résiliente Orientée vers le Marché. L'approche est en cours d'exécution au Burundi.

Towards sustainable agriculture

In many African countries, increasing agricultural production is the primary pathway towards sustainable development. However, a huge number of small-scale farms continues to face low productivity levels, often due to soil degradation and low efficiency of their production systems, the absence of affordable inputs and markets, and low economic returns of innovations at farm level. Local successes to lift small-scale subsistence farming out of the vicious circle of poverty and resource degradation are rare. Crucial for achieving sustainable change is that interventions need to take a more integrated visionary approach, aiming to change farmers' mindsets and trigger their intrinsic motivation to invest in sustainable agriculture that can generate a decent income. In these *Market Oriented Resilient agricultural production Systems* (*MORS*), investing in natural resources (sustainable land management, i.e. soil structure and soil fertility) and reinforcing the social system with family farmers (male and female headed) is required to be able to cope with shocks due to changing conditions (weather, climate, prices, etc.). This aims at transforming 'a farmer by default' (because there is no or hardly any other option) into 'a professional entrepreneurial farmer by choice'.

The PIP approach

The PIP approach (PIP from the French *Plan Intégré du Paysan*), as currently being implemented in Burundi, aims to achieve this transformation. The underlying belief of the PIP approach is that changing the farmers' mindset by motivating them to plan and invest in their future is the foundation for sustainable development. Therefore, at the core of the PIP approach is the PIP itself: the integrated farm plan designed by the entire family. This is first done by Farmer Innovators (the PI from the French *Paysan Innovateur*) or progressive farmers who subsequently train other farmers. The PIs in Burundi are often women, to whom the integrated PIP approach is very appealing. Given that the PIP approach aims at achieving widespread change and impact, Farmer-to-Farmer training to transfer a new vision and intrinsic motivation are crucial.

The PIP approach builds on certain elements of the Farmer Field School (FFS) approach, but its main added value to FFS and other approaches is in terms of vision development, integrated farm planning and scaling-up:

Added value to other approaches

- Vision development (inducing **intrinsic motivation** in farmers)
- Development of an **Integrated Farm Plan** (with time horizon of 3-4 years)
- Involvement of the entire family in **action planning** (based on SWOT analysis)
- Following an integrated approach (with a wide diversity of subjects/activities)
- Farmer-to-Farmer training seen as crucial for scaling-up phase

The PIP, the plan itself, concerns a drawing of the current farm situation and the visualization of the family's dream for the future. A good PIP represents aspirations and capabilities of all family members, male and female alike. Gender equity is thus indispensable for drawing a realistic and truly integrated plan. As such, the PIP becomes a powerful tool for **planning**, **learning** and **integration** of concrete actions: i.e. the PIP and the action plan made by the entire family.

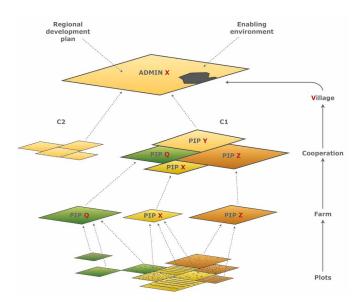
An important underlying concept in the PIP approach is "conscientization", meaning that *people become aware of their ability to transform reality by conscious collective action*. This is exactly what a PIP does: it intrinsically motivates all family members to draw their future with attainable goals and concrete activities. As such, a PIP fosters the development of visions towards a desired future, instead of living season by season or day by day. This change of mindset, this vision is the foundation for sustainable development.



Current (left) and dreamed future situation (right) of a farm

Integration and scaling-up

Although sustainable agriculture is at the heart of the PIP, integration with all kind of other activities is crucial for achieving sustainability. As many activities in a PIP require the collaboration with fellow farmers, each PIP serves as input for collective plans with neighbours or farmers with similar aspirations or talents, resulting in a PIC (Plan Intégré du Collectif). Moreover, farmers can start collaborating in groups at watershed level, and use their PIPs to implement for instance soil and water conservation works. In a PIC, farmers can also jointly focus on a commodity (cash crop) and make their own "business plan" to obtain financial support. Going one step further, such plans can become the basis for plans at village, commune or district level, and become instrumental for governmental institutions to implement their development plans.



Scaling-up of the PIP approach: from plot to farm, to cooperation, village level and beyond.

In order to go to scale, an essential element of the PIP approach is Farmer-to-Farmer training. Governmental extension services are often not able to reach a large number of farmers with messages not tuned in to smallscale farmers' realities. In the PIP approach, inherently motivated PIP-trainers train their fellow farmers during the so-called PIP-competitions. These Farmer-to-Farmer trainings focus on how to create a PIP and its vision: the importance of integrated farming for sustainable agriculture and income-generation. Next, these trained farmers, men and women alike, train others. With each trained farmer the impact increases, making the PIP approach more sustainable than the often top-down extension approaches.

Phases of the PIP approach

The PIP approach counts four phases which together cover about three years. These phases and their time-length are based on our experiences in Burundi, where phase 4 has just started. The first three phases are most important (1¹/₂ year) because then the foundation for scaling-up is being laid:

Phase 1: Awareness raising at village level (3 months)

- Phase 2: Creating and implementing PIPs with PIs (9 months)
- Phase 3: Scaling-up with PIP competitions (1 year)

Phase 4: Scaling-up beyond village level (1 year)

Phase 1 lays the foundation for the intervention and aims at community strengthening. The bricks of a solid foundation for sustainable development are the people; self-reliant people with a progress-driven attitude, based on equality. Awareness raising and community mobilization are crucial in this phase, it prepares the village, with the project as change facilitator.

Phase 2 creates Integrated Farm Plans with the PI, with a focus on planning, learning and integration. Integration means considering the entire farm, including natural resource management, division of labour, nutrition, and other aspects including non-farm activities. All together, the PIP should lead to increased production, more sustainable farming systems and resilient households. Based on the sketch of the actual situation and the "PIP dream" of the family and its members, the family of each PI makes the action plan for the coming years.

Phase 3 of the PIP approach concerns the scaling-up towards village level. PIP competitions between organized groups spread the PIP vision and knowledge from PIs to village level. In these competitions, participating farmers draw their PIP and collectively discuss and learn. This is "*learning by doing*" in an entertaining way, stimulating knowledge transfer and building strong (social) groups within a community.



A farmer explaining the current and dreamed future situation of her farm (Makebuko commune, Gitega, Burundi)

Phase 4 concerns scaling-up towards neighbouring villages, as well as institutionalizing the PIP approach by intensive collaboration with the extension service. Certified PIP-trainers are employed in this phase to train other farmers, while being compensated for their efforts. Eventually, being a certified PIP-trainer can become an income-generating activity, a job for these farmers, especially when the PIP approach is spreading.

Results in Burundi

First results in Burundi are promising, with over 80% of the households in the villages having good quality PIPs through the Farmer-to-Farmer training. Even more important is the enthusiasm in the villages and the significant change of mindset, as illustrated below.

Statements of farmers after being trained in PIP:

- My head was closed, now my eyes are open because of the PIP trainings
- Me and my wife had different aspirations, but now we work together on the same plan
- I have come to understand that I did things badly, now I have a plan, now I know
- Now I understand how I can protect my land from erosion and how to produce more
- I have new hope for the future, and I know what I want to achieve; it is like I have woken up

This is a brochure of the project "Fanning the Spark" in Burundi and was edited by Aad Kessler, Niek van Duivenbooden (Wageningen UR, the Netherlands) and Frénarie Nsabimana (RBU2000+, Bujumbura, Burundi). For more information:

Aad Kessler (aad.kessler@wur.nl) or Niek van Duivenbooden (nick.vanduivenbooden@wur.nl)

Wageningen, the Netherlands, July 2015