TRAVERSES

AVSF, CEDAC, CROSE, CUDES, Faranfasi so, FONHADI, ISC, GRET, IRAM

Innovations in Services for Irrigation Users

A Comparative Analysis of Three Institutional Innovation Processes in Cambodia, Haiti and Mali

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Ensuring that irrigation schemes are sustainable when management is transferred to farmers remains a considerable challenge for food security and economic develop-ment. Between the dismantling of public advisory services and unsustainable projects still too often limited to providing rapid training courses, irrigation users are quite alone in facing this challenge. Yet, the responsibilities they must assume are numerous, complex and sometimes beyond their abilities.

Support for the emergence of intermediary actors—or strengthening existing organizations—as service structures is, in this context, an interesting possibility. But there is no one single model. On the contrary, the experience of the ASIrri project in Cambodia, Haiti and Mali shows that setting up irrigation user service schemes is an institutional innovation process to adapt to each context: a farmers' organization providing support-advice services in Mali, a federation of irrigation users' organizations pooling an in-house service scheme in Haiti, or a private center arising from a project team opening its governance to peasants in Cambodia.

Analyzing these three innovation processes nevertheless reveals common principles when it comes to services, principles that are put into practice differently in each con-text. What is more, ASIrri is also a testament to the fact that the implementation of these innovation processes requires unique project engineering.

LES ÉDITIONS DU GROUPE INITIATIVES

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This issue of Traverses was written based on the work done in the closing workshop of the ASIrri project (March 19-21, 2012).

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A Comparative Analysis of Three Institutional Innovation Processes in Cambodia, Haiti and Mali

AVSF, CEDAC, CROSE, CUDES, Faranfasi So, FONHADI, ISC, GRET, IRAM[1]

Ensuring that irrigation schemes are sustainable when management is transferred to farmers remains a considerable challenge for food security and economic development. Between the dismantling of public advisory services and unsustainable projects still too often limited to providing rapid training courses, irrigation users are quite alone in facing this challenge. Yet, the responsibilities they must assume are numerous, complex and sometimes beyond their abilities. Support for the emergence of intermediary actors—or strengthening existing organizations—as service structures is, in this context, an interesting possibility. But there is no one single model. On the contrary, the experience of the ASIrri project in Cambodia, Haiti and Mali shows that setting up irrigation user service schemes is an institutional innovation process to adapt to each context: a farmers' organization providing support-advice services in Mali, a federation of irrigation users' organizations pooling an in-house service scheme in Haiti, or a private center arising from a project team opening its governance to peasants in Cambodia. Analyzing these three innovation processes nevertheless reveals common principles when it comes to services, principles that are put into practice differently in each context. What is more, ASIrri is also a testament to the fact that the implementation of these innovation processes requires unique project engineering.

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INTRODUCTION

Collective action is vital for the management and sustainability of irrigation schemes, notably large-scale schemes. Yet, collective action is often difficult and not spontaneous. Social engineering is needed to strengthen, or even generate, this collective action.

A consortium of NGOs and farmers' organizations from Cambodia, France, Haiti and Mali formulated the ASIrri project (supporting irrigation users and irrigation user services) to meet this need.[2] ASIrri aimed to "elaborate, test and foster the sustainability of support modes and service provision targeting irrigation users for sustainable farming in irrigated zones in three different national contexts (Haiti, Cambodia and Mali), taking advantage of the different experiences across sites to maximize exchange, co-learning, and analysis and documentation."[3]

In this way, ASIrri is the story of three institutional innovation processes. The project was financed by the Agence Française de Développement (AFD) through its sectoral innovation facility for NGOs (FISONG). The AFD defines innovation as "the search shared by the AFD and NGOs for new intervention methods, technical procedures, organizational schemes or partnerships able to create new dynamics and play a driving role in a specific sector of development."[4] ASIrri is the first project on the topic of agricultural water and sector-specific irrigation policies to be funded by the FISONG. It specifically addresses the issue of ensuring the sustainability of irrigation schemes through users' socio-professional organization, which the AFD sees as a key area for action by NGOs.[5]

This issue of *Traverses* addresses "crafting the institutions"[6] needed to set up services for irrigation users in order to improve the schemes' performance and make them sustainable. It analyzes and compares three institutional innovation processes setting up services for irrigation users' organizations in Cambodia, Haiti and Mali from 2009 to 2012.[7] [8]

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[2] The ASIrri project was formulated and implemented from 2009 to 2012 by the following consortium: in Cambodia, GRET (Professionals for fair Development and CEDAC (Centre d'Études sur le Développement Agricole au Cambodge [center for agricultural development studies in Cambodia]); in Haiti, AVSF (Agronomes et Vétérinaires Sans Frontières [Agronomists and Veterinarians Without Borders]), CROSE (Coordination Régionale des Organisations du Sud-Est [regional coordination of organizations in the south-east]), CUDES (Coordination des Usagers de l'Eau du Sud-Est [coordination of water users in the south-east]) and FONHADI (Fondation Nationale Haïtienne de l'Irrigation [Haitian national irrigation foundation]); and in Mali, IRAM (Institut de Recherches et d'Applications des Méthodes de Développement [institue for development method research and application]) and the Faranfasi So federation of service centers. In addition, IRAM acted as consortium leader and ran the crosscutting analysis and documentation component. See appendices for a brief description of the ASIrri project.

[3] Cf. the specific objective of the project. A brief presentation of the ASIrri project is provided in Appendice 2.

[4] www.afd.fr

[5] Indeed, V. Papazian noted that ONGs are the ones that know best how to support the elaboration of management rules (in a talk given during the closing workshop of the ASIrri project). We could specify "professional NGOs" because the three ASIrri project implementers are members of Groupe Initiatives.

[6] "Crafting institutions" as defined by E. Ostrom, Cf. "**Crafting Institutions for Self-Governing Irrigation Systems**", E.Ostrom, 1992, and the summary and translation of this work by P. Lavigne Delville, 1997, for Inter-Réseaux's Irrigation Group.

[7] N.B.: When referring to field examples, we have simplified the text: for example, "in Cambodia," "in the case of Cambodia" and so on are often used as shorthand for "in the experience of the ASIrri project in Cambodia."

[8] The three service models are briefly summarized in a table in Appendix 3.

Several questions are in this way addressed:

- In diversity of "management transfer" contexts, how can one help actors'—States, farmers, support services—find new footing? Is it relevant for intermediary actors to emerge?
- What services are required to strengthen irrigation users' organizations and ensure sustainable and efficient management of irrigation systems? What principles support these services? What institutional and economic schemes can be set up to ensure that these services are sustainable?
- How have partners innovated together to answer these questions? What project engineering allows these innovations?

Can a project in three so very different countries be relevant?

ASIrri was an ambitious bet because the aim was to run a project on three continents, in three languages, with three organizations from the north and organizations from the south, in very different (institutional, social, geographic, etc.) contexts to run sometimes complex innovation processes.

The idea behind the project was not to transfer "best practices" from one country to another. On the contrary, ASIrri is the story of innovation processes adapted to each of these contexts.

However, the project gave rise to numerous comparative reflections as the questions examined by some were echoed among the others. These exchanges took place through a specific crosscutting component. The very existence of a component devoted exclusively to analysis, documentation and comparative exchanges was, what is more, deemed to be an interesting innovation by the final outside evaluation of the project.

I. ON THE NEED TO DRAW OUT OR STRENGTHEN INTERMEDIARY ACTORS BETWEEN IRRIGATION USERS' ORGANIZATIONS AND THE STATE

1. "Management Tranfser" Based on Three Concrete Cases: A Generic Phrase Covering Very Different Realities[9]

In each of the three countries where the project was active—Cambodia, Haiti and Mali—the history of irrigation is closely associated with national history. The successive irrigation management modes were reflections of the States in place and their methods of governance. These national histories and these histories of irrigation were, what is more, particularly difficult in all three cases.

Forced labor resulting in millions of deaths to build the irrigation schemes during the Khmer Rouge period in Cambodia.

Forced labor to build the Office du Niger during the colonial period, then a key site for the expression of socialism in Mali, and then (dictatorship) establishment of an economic policy.

Duvalier dictatorship with authoritarian trustees (*syndics*) in Haiti in the 1980s and then the collapse of this system. Even today in Haiti, there is clearly a link between the strengthening of irrigation users' organizations, the development of civil society, and nation building.

[9] More detailed presentations of the management turn over processes are provided in the appendices.

State-farmer relations around these irrigation schemes thus evolved considerably throughout these histories to allow the slow emergence of irrigation management by farmers. Reference is sometimes also made to the notion of "management transfer." Yet, one can but note that this notion takes very different forms in the three countries and encompasses diverse realities. Furthermore, the term "transfer" is not always appropriate, although the issues are similar.

In 1999, **the Cambodian government** created the Ministry of Water Resources and Meteorology and set up the Participatory Irrigation Management and Development (PIMD) policy. The goal is to ensure the operation, maintenance and economic optimization of investments in the field of irrigation and drainage by progressively transferring management to users' committees, the Farmer Water User Communities (FWUCs). However, the policy does not clearly define the division of responsibilities between the State and the FWUCs. FWUC representatives are farmers elected by users; they generally receive only very brief and theoretical training on how to play their role. These irrigation users' organizations are left to their own devices and the State intervenes in emergencies. We can easily see that these conditions are not conducive to system sustainability.

In Mali, Office du Niger management has undergone deep-reaching changes since it was created: first a colonial enterprise (until 1960), then a site for the expression of State socialism (from 1960 to 1968), then authoritarian management, and then a process of liberalization with the progressive involvement of farmers (in the 1980s and especially the 1990s). There is not really much mention of "management transfer" but reference is often made to the process of "restructuring" the Office du Niger starting in the 1990s. Today, the theoretical division of responsibilities is as follows: the State is responsible for major and primary infrastructures, and delegates their management to the Office du Niger; the Office du Niger is responsible for secondary infrastructures and collects fees from farmers to fulfill this function; farmers are responsible for tertiary infrastructures. It was to this aim that tertiary network maintenance and exploitation organizations (OERTs, *organisations pour l'entretien et l'exploitation du réseau tertiaire*) were created starting in 2001 to group together farmers on the same tertiary networks so that they would maintain and manage their networks. Yet, due to a lack of support provided to these new organizations, everyone agrees that they are not operational, causing network deterioration, poor performance, and growing tensions. Farmers are also supposed to be involved in Joint Committees for Operations and Maintenance at Secondary Canal Level (CPPs, *comités paritaires de partiteurs*, which are not operational), Joint Committees for the Management of the Secondary Hydraulic Network Maintenance Fund (CPGFEs, *comités paritaires de gestion du fond d'entretien du réseau secondaire*), and Joint Committee for Land Management (CPGTs, *comités paritaires de gestion des terres*). Yet, farmers' ability to get involved in these structures is still weak. Given this observation, some are pushing for a sort of step backwards to greater involvement by the Office du Niger on all levels.

In Haiti, the fall of Baby Doc in 1986 marked the sudden withdrawal of the State and all irrigation user services. After very authoritarian management of irrigation by the State and its all-powerful *syndics* (water management trustees), farming households were suddenly left to their own devices. Autonomous peasant management of water has nevertheless developed little by little in a difficult context. For more than 10 years, however, the State has once again made supporting irrigation a priority. In 1997, the Ministry of Agriculture, Natural Resources and Rural Development (MANRRD) defined and set up a strategy to transfer irrigation schemes to users. Here, reference is explicitly made to "management transfer." This policy purports to be responsible: no scheme can be turned over unless it has first been renovated and a strong irrigation users' organization has been created. In practice, this policy has been rolled out on the national and departmental levels but in a scattered way with varying degrees of success. Only thirty or so irrigation schemes have been turned over with contracts between the MANRRD and irrigation users' associations. In addition, the legal framework is a considerable hindrance: there are roughly a hundred laws on water, half dealing with irrigation. But this body of laws is old, scattered, incomplete and above all little enforced since 1986. Since the 2000s, with determined support from the State and public and private international cooperation,

irrigation users have, however, begun to take ownership of their irrigation users' organizations and display institutional innovations. Management is becoming more collectively conceived, even if this "collectiveness" is still weak: it sometimes does not always represent all irrigation users in a scheme, and is sometimes still too closely tied to the interests of a small group of leaders and more influential farmers. It was in this favorable environment that the *Coordination des Usagers de l'Eau du Sud-Est* (CUDES, the South-East water users' group) was born in 2003; today, CUDES brings together 12 associations totaling more than 5,000 irrigation users over approximately 3,000 ha.

2. On the Need to Support Farmers' Management of Irrigation: The Myth of 100% Farmer Management

Here, we can clearly see differences in the field: we talk about "management transfer" in Haiti, while in Cambodia we prefer of the expression "participatory irrigation management and development," and in Mali we refer instead to the "restructuring" process.

Although different, there is a similar rationale at work in all three processes. First, a liberal line of thought believes that, because of its organizational, technical and financial weaknesses, the State is incapable of managing the schemes in the field, and one must also avoid weighing down the government budget by setting up expensive and often inefficient public water management services.[10] Second, the "participatory" line of thought promotes development owned by local actors and not imposed from the top[11] with a degree of optimism as to farmers' ability to take over practical management of irrigation schemes. This is the classic association of criticism of State bureaucracies with a populist vision of the farming world.

Yet, the proper operation of hydro-agricultural developments requires a range of complex functions be fulfilled, some of which are beyond irrigation users' capabilities: scheme maintenance, water operation and management (sharing rules, agricultural calendar, etc.), scheme protection, by-law enforcement, information management (land, services, fees), fee collection for self-funding, financial management and control, representation of member farmers and advocacy services, and the organization of other possible services (access to inputs, financial services, extension, processing and marketing, etc.)

These functions can be fulfilled by different actors depending on the specifics: public structures, irrigation users' organizations, federation of irrigation users' organizations, other farmers' organizations, service centers, etc.

In the case of the PIMD in Cambodia, a large share of these functions is a matter for irrigation users' organizations, and the Irrigation Service Center (ISC) was set up so that they can perform these duties.

In Haiti, CUDES takes care of some of these functions because irrigation users' organizations are too weak and too small and cannot handle everything. For example, input supply, product marketing, and sometimes even representation, outside conflict management, negotiations with government authorities and cooperation bodies, and information management are in this way provided at the federation level instead of at the grassroots level.

In the case of Mali, this depends on the network level: at this stage, the OERTs only deal with the tertiary level and farmers are involved in decision-making on higher levels only through joint committees, which are not yet sufficiently operational as structures.

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[10] Vermillion, Douglas L. (1997). Impacts of Irrigation Management Transfer: A Review of the Evidence *Research Report* (pp. 35). Colombo, Sri Lanka: International Irrigation Management Institute.

[11] Jolly, Geneviève. (2002). La gestion sociale de l'eau, production de connaissances du groupe GSE 1992-2002, Tome 1: Bases conceptuelles et méthodologiques http://www.isiimm.agropolis.org/OSIRIS/report/GSEConceptMethod_Jolly2002.pdf

One can but note that there are real difficulties in peasant management of irrigation: yields are stagnating, infrastructures are poorly maintained and need constant renovations, peasants do not have the skills to manage such infrastructures, the strong pressures on water and land resources require increasingly sophisticated management methods, etc. In some cases such as in Mali, tensions among irrigation users and between irrigation users and the Office du Niger are increasingly acute.

Some therefore question this management by farmers. In the Office du Niger, for example, some talk about entrusting maintenance of tertiary networks to the Office du Niger again and billing farmers for this maintenance.

Yet, after having caricatured the failure of the "all-State" model, one should not jump too rapidly to the conclusion that the "all peasant" model has failed or will fail.

Indeed, it is rather this absence of support for management by farmers that needs to be blamed, and therefore work now needs to be done on this support using new modalities and renewed systems and institutions. Furthermore, this notion of support seems to be crucial in farmers' eyes.

3. On the Relevance of an Intermediary Actor Between Farmers, the State and Other Private Institutions

Nearly all "transfers" involve a redefinition of the State's and farmers' roles. Accordingly, the question is not so much one of whether it is up to the State or farmers to manage irrigation schemes. Both actors are vital, and so it is rather a question of understanding how to coordinate these two levels in practice. What role must the State play to allow farmers to take charge of all or part of the system? In the framework of the ASIrri project's three field experiences, particular attention was therefore devoted to attempting to overcome State-farmer opposition—and sometimes conflict—to move into a more partnership-based and constructive mindset. For instance, in Mali, one of the methodology handbooks specifically addresses the issue of multi-actor partnerships.

"Transfers" also involve new relationships between farmers and private institutions (NGOs, projects, consultancy firms, etc.) for technical or social support in renewed, sometimes contractual formats.

The question raised is one of how to get State agents, technicians and farmers' representatives to work together, their respective legitimacy, and their technical capacities. How can one move beyond rigid institutional or even personal rationales to serve the general interest? How can one ensure that actors understand each other and build a shared vision of challenges they have redefined together? How can one generate initially informal collaboration and then institutionalized partnerships that redefine the roles of all parties based on experience in the field?

> The case of Office du Niger (ON) zone and farmer-ON relations is a particularly good illustration of this.[12] Farmers want the Office du Niger to manage the major works or help them enforce penalties on the local level that the social context makes difficult, but they also want to take ownership of their own portion of the network. Yet, when Faranfasi So offered its water management and maintenance support services in 2008, they asked themselves: "Will the Office du Niger agree?" and "Can we go with Faranfasi So when water management has always been said to be the Office du Niger's remit?" A long awareness-raising phase (among farmers but also within the Office du Niger in the field) was therefore necessary to explain the division of roles and responsibilities according to the Contract Plan and to explain the OERT support process. Faranfasi So needed to earn acceptance, carve out its place, and encourage collaborations between all actors to move beyond institutional or personal rationales. This

[12] On this subject, see the film *Office du Niger : du travailleur forcé au paysan syndiqué*, IRAM (produced by L. Colin and V. Petit), 2007.

required quarterly scheduling meetings be held in the field with the Office du Niger, the involvement of ON field agents in many activities (training, workshops, visits), the yearly meeting of the project monitoring committee bringing together all parties involved under the chairmanship of the Chamber of Agriculture, and many individual contacts to explain, involve, etc. In the end, the farmers emphasize: "It is the first time that we all met (the Office du Niger, the Chamber of Agriculture, unions, researchers, Faranfasi So, OERT) around a table to discuss water management and maintenance." The ASIrri initiative first implemented by Faranfasi So is now fully supported by the Ségou Chamber of Agriculture and the Office du Niger is promoting its expansion to other zones.

In Cambodia, the ISC's mission is to support the FWUCs and facilitate exchange and coordination among the various parties involved in the irrigation sector. For example, it facilitates relations between local authorities and the PDOWRAM for the validation of technical plans for the commune's investment projects. It supports the establishment of reservoir coordination committees. To foster learning among FWUC representatives and discussions among them, and to attempt to carry their voices to the government authorities, the ISC in collaboration with the CEDAC's already existing informal network supported the emergence of Farmer & Water Net (FWN), a federation of FWUCs registered with the Ministry of the Interior since the end of 2011. To ensure its legitimacy in the eyes of all partners, it systematically negotiates framework agreements with the PDOWRAMs that have jurisdiction over the schemes where it intervenes. At the level of the MOWRAM, it collaborates with the FWUC department to foster the adoption of shared standards in the framework of FWUC assessment.

Instead of a confrontation among actors, the experience undertaken with the ASIrri project shows that the emergence or consolidation of an intermediary actor often makes it possible to create ties between actors: by this we re-establish sector-specific dialogue thanks to the addition of an intermediary facilitator—not in place of the State, not in place of irrigation users' organizations, but in addition to both. Having the necessary skills, it is even able to manage relations with third parties effectively, in particular private institutions and private operators in the area.

These service centers help farmers work together, get organized in response to the State, and become credible interlocutors. Credible because they effectively fulfill the roles assigned to them, because they have financial resources, and because they represent farmers. The service centers also help the State respond pragmatically to farmers' problems and shore up their legitimacy when it comes to functions that irrigation users' organizations (IUOs) cannot fulfill.

In the end, it would even seem that the addition of an intermediary actor allows farmers and the State to "own"—to re-appropriate—irrigation schemes.

4. On Diverse Origins of Service Centers for Irrigation Users and Centers that Respond to Local Challenges

Yet, for all that, one must not see the idea of service centers as a new fad: after the "all State" model, after the "all farmer" model, is there an "all service center" model? No, on the contrary, the experiment undertaken sought to find responses suited to the context of each country, and the models are, what is more, very different from one country to the next: a farmers' organization providing support-advice services in Mali, a federation of irrigation users' organizations pooling an in-house service scheme in Haiti, and a private center arising from a project team opening its governance to peasants in Cambodia.

In Mali, the first service provision centers (CPSs, *centres de prestation de services*) in the Office du Niger zone date back to 1995. The CPSs provide services in the areas of management advice, legal advice and literacy for farmers' organizations (village associations, pre-cooperative groups, women's groups). Five CPSs formed a federation, the Faranfasi So federation, in 2011. In this way, they filled the space left vacant by the Office du Niger in the field of rural advice. At the time, they would not have been permitted to intervene in the areas of water management and maintenance. Ten years later, the context had shifted and, with

ASIrri, Faranfasi So was able to diversify its services to cover tertiary network maintenance and exploitation organizations (OERTs) and invest in the field of water management and maintenance. The aim is for Faranfasi So to grow and test new services (supporting water management and maintenance) for new organizations (the OERTs) by enhancing its habitual approaches and comparative advantages. The Office du Niger's position on the ASIrri initiative was initially ambiguous (in 2009), somewhere between mistrust and benevolent interest. But by insisting on approaches based on partnerships with the Office du Niger, the Chamber of Agriculture, the Institut d'Économie Rural [rural economy institute] and unions, Faranfasi So was slowly able to earn acceptance on this topic. It carved out a space, earned legitimacy and is now earning recognition as a skilled new actor in the area of water management and succeeding in the challenge of activating the OERTs. In so doing, Faranfasi So has not sought to re-invent the wheel when it comes to water management and maintenance. On the contrary, it has sought to exploit the numerous accomplishments of past projects, attempting to overcome their non-sustainability due to project constraints. The hypothesis was that the fact that the irrigation user support would be provided by a farmer service structure—an intermediary structure between irrigation users' organizations (IUOs) and other parties involved—would make all the difference compared to past projects. After barely four years of pilot experiments, this hypothesis seems to have been proven in the field!

In Cambodia, ASIrri's story is very different. GRET and CEDAC had already been active for several years providing IUOs with support, notably in Prey Nup and Stung Chinit. National teams had been set up and had acquired extensive experience in this area. But the end of the projects created the risk that these skills could be lost. The idea therefore emerged to set up an irrigation user service center bringing together the former project teams. An Irrigation Service Center (ISC) was set up in Kampong Thom Province and provides services to seven Farmer Water User Communities taking advantage of GRET's and CEDAC's experience supporting irrigation users and following a new institutional model (private service center instead of a project structure). Services of different natures (technical, institutional/organizational, financial/economic) were in this way been elaborated and tested. A federation of irrigation users' organizations was set up and brings together 12 FWUCs from eight provinces. Today, the ISC is a structure in its own right on the institutional level but its viability remains to be proven over the long term. A sizeable challenge was to find the right institutional and economic model for this new intermediary structure—the only one of its kind providing services specifically destined for irrigation users in Cambodia.

In some way, the case of Haiti falls in between those of Cambodia and Mali. Like in Cambodia, the teams already had lengthy experience with social water management and supporting irrigation users. Like in Mali, farmers' organizations were already very present. And yet, a third path was explored: pooling within a federation of irrigation users' organizations. In Haiti, the irrigation schemes in southeastern Haiti concerned by ASIrri are relatively small in size. Therefore, each of the irrigation users' organizations is not able to provide all the services irrigation users require. Starting in 2003, 12 irrigation users' organizations formed a federation, the CUDES (the Coordination des Usagers de l'Eau du Sud-Est [coordination of water users in the south-east]) based in Jacmel. Created by irrigation users' organizations themselves, to pool certain costly and difficult to manage services, the federation took charge of managing support for member organizations in the areas of water services, agricultural training, outside representation, and conflict management. However, management of irrigation schemes remained clearly the prerogative of irrigation users' associations. CUDES is itself a founding member of a regional social organization, CROSE (the Coordination Régionale des Organisations du Sud-Est [regional coordination of organizations in the south-east]). Together, they manage two additional economic service centers: one central purchasing and marketing office, and an input shop. The "service center" here is an integral part of the dynamic unique to farmers' social organizations.

Thus, in the three countries, the institutional, technical and economic models chosen are very different and not the result of random chance. They are truly linked to the context: the outcome of the history of management transfer in each country, the result of the institutional context (strong involvement or not by the State, presence or not of farmers' organizations) and the social context (private dynamics), the result of partnerships between NGOs, etc.

Furthermore, because of the differences in models between the three countries, the three field components took some time to understand each other. While the notion of "service center" seemed to be the object of unanimous agreement in the project document, in reality each had its own understanding of the concept: each saw something different and specific behind these words. It took several discussions to reveal these differing understandings, get to the bottom of them, and understand the unique relevance of each model. The comparative analyses were therefore very interesting.

II. WHAT KEY PRINCIPLES FOR THE ESTABLISHMENT OF IRRIGATION USER SERVICES?

Although each of the field experiments developed its own approaches, tools, and services, we can see a certain number of common principles for the establishment of services.

Principle 1: Favor approaches and services that take their inspiration from social water management.

ASIrri placed social water management (SWM) approaches at the center of its work, approaches that are well-known but too infrequently applied.

Accordingly, several interns from the Institut des Régions Chaudes [Institute for Higher Education in Tropical Agrifood Industry and Rural Development (IRC)] specializing in SWM were mobilized for studies in Cambodia and Mali.

The three project teams developed their own tools to support irrigation users' organizations, often based on existing experiments. These tools were grouped together in several methodology handbooks. From one zone to another, certain tools turned out to be fairly similar. The services cover the following areas:

- Water Issues: Approaches inspired by social water management. Training in water management and maintenance. Establishment of mapping tools to understand and take ownership of one's irrigation scheme (from participatory mapping to more elaborate mapping). Establishment of investment funds for renovations in order to accompany soft support (and not soft support to accompany hard developments as is usually the case).

- Organizational and Institutional Issues: Support reviewing or elaborating irrigation users' organizations' articles of association and by-laws, including the establishment of gradual penalty systems. Support for consultation among irrigation users' organizations and between irrigation users and other actors.

- Agricultural Issues: Support for joint agricultural planning.

- Economic/Financial Issues: Support setting up "fee" systems.[13] Support managing these sums. Support opening bank accounts. For the most advanced irrigation users' organizations, accounting audits.

- Monitoring and Assessment Issues: Establishment of tools to assess irrigation users' organizations and services. Elaboration of organization typologies.

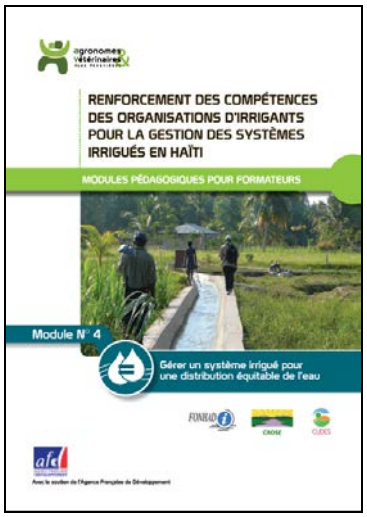
[13] In the case of Mali, we speak of "tertiary contributions," the fee being the sum collected by the Office du Niger every crop year from plot holders for the use of their land.

What is more, beyond these services provided by service centers directly to irrigation users' organizations (IUOs), there is a need for policy services that can be provided by different organizations: from sector-based dialogue facilitation (Mali and Cambodia), to negotiation with donors, NGOs, and international cooperation bodies, and to real advocacy (the fight against aggressive urbanization of farmlands) in the case of Haiti.

The three field components elaborated methodology handbooks/guides for service center teams based on their own experience.

These handbooks/guides are available on IRAM's, GRET's and AVSF's websites and on the project's CD-ROM.

Facing image: one of the documents produced by the Haiti team.



Principle 2: Provide better defined "services" instead of vague "support."

The ASIrri project was initially formulated around the notion of "service centers." However, the notion of "center" was not promoted in the same way in all three cases and is not relevant in the same manner.

This notion of "center" is well suited to the experiences in Cambodia and Mali where service centers (the ISC irrigation service center, and the CPS *centre de prestation de services* [service provision center]) were set up or strengthened. In the case of Mali, a Faranfasi So center's name means "the house that sheds light" and is effectively a meeting place. In the two countries, this notion of center as a unique entity is fully proclaimed and necessary. Indeed, it allows one to affirm oneself as a specific stakeholder with one's own added value. In the movie *Building the Future of FWUCs in Cambodia*, the Cambodia team also emphasizes that the ISC is unique in Cambodia because it is the only one to provide services specifically destined for irrigation users' organizations.

In Haiti, the services are integrated in the existing federation of irrigation users' organizations, CUDES, that took charge of pooled services for its member organizations, in addition to two specific centers with economic aims. These centers are seen as an integral part of the existing social organizations.

While the notion of "center" is applied differently in the three contexts, in all three cases, however, the same notion of "services" destined specifically for irrigation users' organizations is innovative and crucial. Development projects generally speak of supporting farmers' organizations and irrigation users' organizations, but the nature of the support is often vague, notably for irrigation users themselves. Farmers sometimes note the irony: "projects are supported by FOs instead of supporting FOs."[14] Speaking of services obliges one to specify

[14] *Evaluation des dispositifs d'appui aux organisations de producteurs en Guinée*, C. Rigourd, K. Guilavogui, P. Diallo – IRAM / MAEEEF-SNPRV, 2008.

the activities that will be undertaken with irrigation users, and be specific about activities, results and expected outcomes.

Services are defined jointly by technicians and representatives of irrigation users' organizations before they are implemented. They are the subject of negotiations based on a shared diagnostic and formal request. The irrigation users' organization is the one that that makes the final decision and (at least in theory) has full latitude to refuse the service or renegotiate its nature. In the end, the farmers know what to expect.

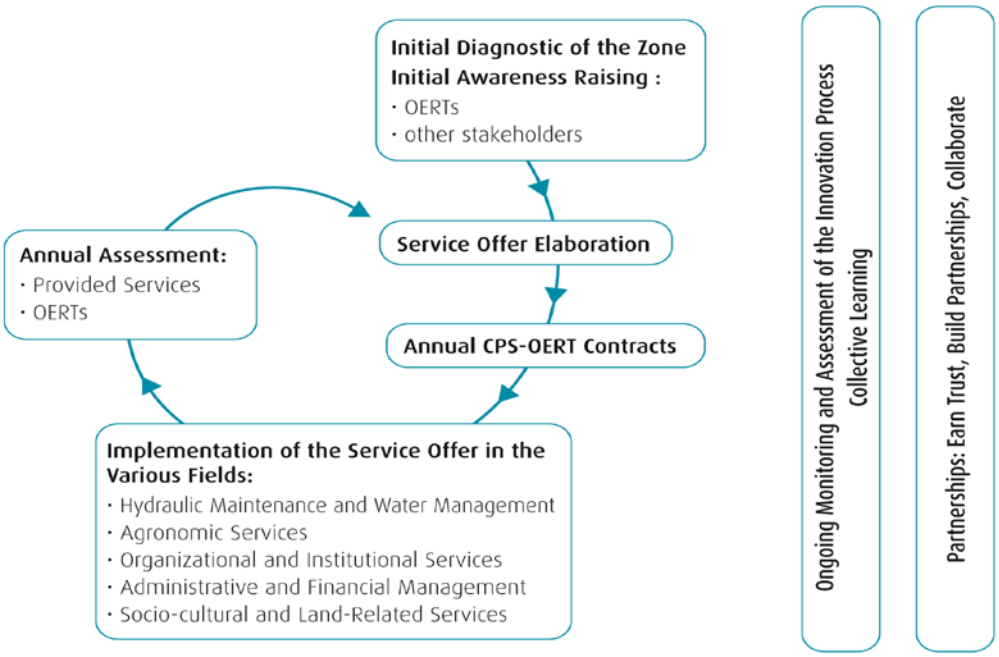
Principle 3: Forge new relationships between irrigation users and service providers: what types of contracts?

In all three cases, the word "beneficiary" is no longer used. In Cambodia, we talk about "clients" and the ISC fully embraces this client-provider relationship. In Haiti and Mali, however, we speak respectively of "members" and "subscribers." Nevertheless, the three cases manifest a shift in the balance of power between representatives of irrigation users' organizations and technicians. The balance of power has tipped more to the side of those who control the funds, who pay for the services,[15] that is to say the farmers. Paying, at least partially, for the services is therefore an essential principle.

> In Cambodia and Mali, services are based on service contracts. In Haiti, there are no specific contracts, even though there is payment for water services provided to member organizations and their federation, CUDES, as well as for the central marketing office (the CAC, *centrale de commercialisation*) and the agricultural store (the BIA). Nevertheless, even without contracts, there is indeed a formal relationship in the form of members' enrollment in the federating structure, which implies services in exchange for enrollment.

Furthermore, in the case of Cambodia and Mali, it is not only a question of signing a contract but also of entering a service provision cycle.

> In the case of Mali, the cycle is yearly since the service provision contracts are yearly.



[15] Even though, at this stage, the payments only partially cover the real cost of the services.

In the case of Cambodia, contracts are signed for specific services or sets of services. A similar cycle is followed for each contract. The assessments trigger payment for the services.

It is interesting to examine the contracting process between the ISC (Cambodia) or the CPS (Mali) and irrigation users' organizations, which are at the center of the two approaches.

In the case of Cambodia and Mali, service contracts are formal (written) commitments:

- *Between two or three legal entities* (CPS-OERT in Mali, or ISC-FWUC-commune in Cambodia). In Cambodia, the contracts are also approved by the provincial technical offices. In Mali, the Office du Niger does not sign the contracts but its technical field offices (zone directorates) are involved in planning, implementation and assessment.
- *On a list of contractual services, that is to say activities, products and outcomes in a given period of time,* more specific in Cambodia (contract for one or a small set of services over a few months) than in Mali (annual contracts covering a broader range of services).
- *With mutual obligations,* the contracts can be revoked. For example, in Cambodia, the contracts will be canceled if the FWUC is unable to bring together at least 66% of its members.
- *Evaluated by both parties* with specific assessment tools (service assessment, contract assessment, including self-assessment).
- *That requires payment.* Of course, the contracts are partially subsidized, either as part of the pilot approach or because the irrigation users' organizations' resources are still too limited, but there is indeed payment, and irrigation users' organizations are, what is more, helped to manage their members' dues to cover various expenditures, including paying for services.
- *That enters a service cycle:* diagnostic, formulation, contracting, implementation, assessment, payment, and then a new cycle.
- *And that is part of an overall rationale of progressive capacity building in stages:*[16] In Mali, four levels of OERT development were identified: Type 1 OERT "stalled," Type 2 OERT "starting up" Type 3 OERT "taking off," and Type 4 OERT "successful." A set of services corresponds to each type.

Principle 4: Recognize organizations' diversity and accompany their development processes following a logical progression.

The three field experiments show that it is essential to recognize the diversity of irrigation users' organizations. In any given irrigation scheme, they are not all the same. Their differences can be of several different types: water-related (network in more or less good condition, network size), socioeconomic (% of non-residents, for example, or different strategies among farmers), organizational (existence of a leader, number of members), etc. In this way, we can identify more or less strong constraints on collective action within an organization. The teams in Mali and Cambodia thus elaborated typologies of irrigation users' organizations and organization assessment tools to evaluate this diversity and take it into account.

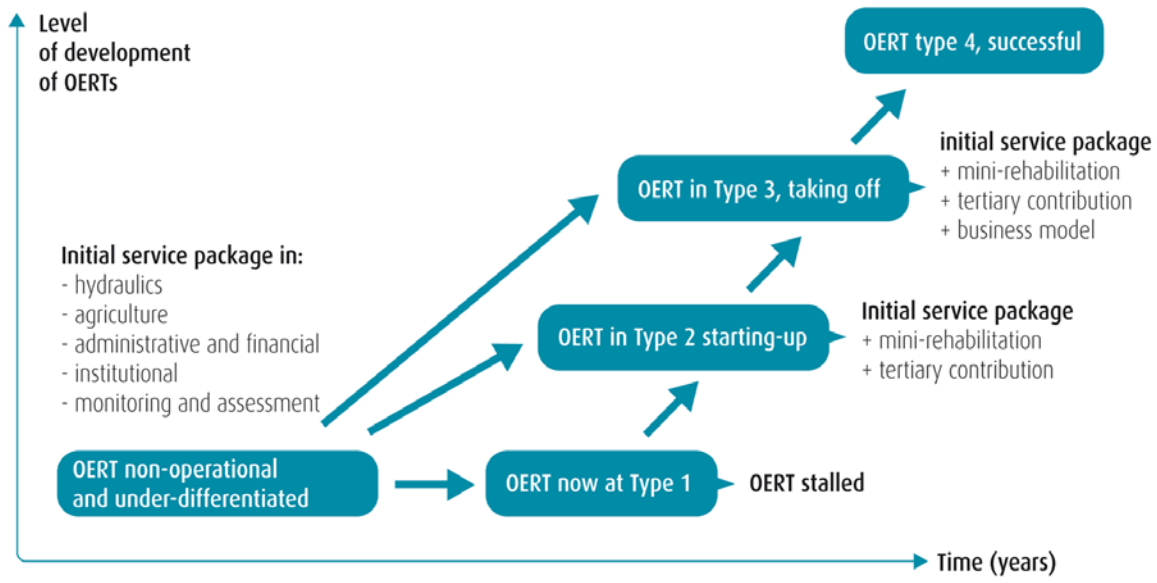
Experience also shows that organizations follow development processes—also referred to as organizations' "trajectories." In this way, they can advance (or regress) and reach developmental stages. Certain capacities must be mastered first; once this stage has been attained, other, more complex aspects can be addressed.

[16] Which corresponds to the concept of 'support' described above.

What is more, elaborating typologies that distinguish between several developmental levels for organizations made it possible to reflect on what constitutes a functional irrigation users' organization. The various stakeholders can in this way formulate a joint vision: to what ideal model aspire?

Acknowledging this diversity and these evolution processes, it is therefore essential to build a set of services following a logical progression to accompany organizations throughout their development and adapt the services to each type of irrigation users' organization.

> In Mali, four levels of OERT development were identified: Type 1 "stalled," Type 2 "starting up," Type 3 "taking off," and Type 4 "successful." Each level corresponds to a specific service offer. The CPS therefore assesses the OERTs every year to accompany them along their development trajectories. At this stage, there are service offers for Type 1, Type 2 and Type 3 OERTs. We do not talk about "service packages" but rather the services follow a precise logical sequence. For example, mini-renovations are deliberately not done in year 1 even though this approach is most frequent in projects. It is believed that OERTs must have already reached a certain developmental level and activity level (moving from type 1 "stalled" to type 2 "starting up") to receive mini-renovations (which are then financed at 90%).



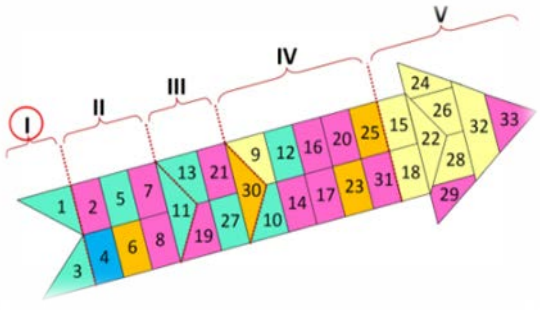
By so doing, by insisting on this logical progression, we do not talk about "service packages." On the contrary, this term is rather rejected. The services are negotiated and defined on a case-by-case basis depending on the irrigation users' organizations (in Cambodia) or on their developmental level (in Mali).

Example of the FWUC assessment tool developed in Cambodia:

The Roman numerals correspond to FWUCs' developmental levels (from weakest (I) to strongest (V)).

33 criteria were identified to evaluate FWUCs' management capacities. Each color corresponds to a degree of mastery of management skills: green = OK, yellow = not mastered.

When all the criteria for one level are satisfactory, the FWUC can move on to the next level.



Principle 5: Provide a pool of skills and adapt one's posture.

Service providers can be advisers in service centers, farmers, outside providers, interns, etc. Experience has shown that it is necessary to combine these different skills and provide a pool of skills. High-level skills are costly and difficult to integrate consistently at all times within both irrigation users' organizations and service centers. But service centers can maintain relationships with skilled national experts that they call on as needed. They help irrigation users' organizations formulate mission goals and establish contracts for expertise that is normally out of reach. This is, for example, the case with engineers for new infrastructure design. Inversely, some tasks cannot be performed by technicians or engineers, and are more a matter for farmers' skills. For instance, this is the case with awareness raising or conflict mediation, which in Mali are matters for elected CPS farmer-officers and not advisers, or in Haiti the CUDES federation's own elected farmer leaders.

Services also imply different postures on the part of service providers: training, advice, mediation, task delegation. In some cases, the service providers can "do for" irrigation users' organizations, for example for very specific activities for which irrigation users' organizations cannot bring the needed skills in-house. Specific training may be needed to allow advisers to feel comfortable taking these different postures.

Principle 6: Find the right amount of professionalism building.

Accompanying irrigation users' organizations can be envisaged in two ways:

1) bring irrigation users to a level where they master an activity, that is manage it for themselves, or
2) accompany them over the long term as they forge their place—which requires highly specific skills.

In Haiti and Cambodia, the CUDES federation and the ISC also target (in addition to services accompanying irrigation users' organizations throughout their development) the creation of permanent services such as accounts monitoring so that irrigation users' organizations do not have to hire full-time staff for this, which would be too expensive, or do not have unreliable books kept by untrained farmers. This amounts to making available technicians (in Cambodia) or trained farmer managers (in Haiti) who are shared by several irrigation users' organizations.

Another question in regard to professionalism building is adviser's profiles. This is a crucial and multi-dimensional issue.

- Favor local, nearby roots: First, in rural areas it is very difficult to lastingly retain professionals trained in the capital or large cities. Usually, they agree to work for a short period of time or take advantage of a contract to gain experience and then move on. Hiring local staff generates a need for practical training but lowers staff turnover and improves trust with irrigation users' organizations. Local staff also listen more closely to farmers and care more about being accepted locally.
- Think about advisers' profiles: Second, advisers' technical profiles are also important. Should a background in rural engineering be chosen? Should social skills be favored? It depends on the context but each service center needs to think about these questions.

  For example, in Mali, Faranfasi So did not initially have water management and maintenance skills so the question of whether to hire someone with a rural engineering background or a farmers' organization background was raised (SWM backgrounds were not really available on the market). It seemed that the crux of the approach needed to be social mediation rather than hydraulics so someone with a FO support background was hired. Rural engineering skills were then occasionally mobilized thanks to providers, and the adviser gradually developed his own irrigation skills.

Principle 7: Give weight to the quality of the process undertaken.

Experience has shown that the quality of the processes conducted is as important as the activities undertaken. “How” matters as much as “what.”

It is therefore not merely a matter of providing training in water management to an irrigation users’ organization. It is a matter of providing water management training that is appropriate to the organization (often based on a diagnostic, suited to its level of development and unique constraints), part of a logical progression (for example, in Mali work on the economic model begins when OERTs attain Type 3), provided in ways that are relevant to the context (for example, in Cambodia and Mali, in the framework of service contracts, but such contracts are not deemed useful in Haiti), while simultaneously working on the institutional context (by encouraging partnerships between stakeholders, for example).

> In Mali, the fact that training and support are provided by Faranfasi So rather than by a project or NGO is crucial to the approach. How services are provided (by a service center, in the framework of a contract, etc.) is as important as the services themselves (training, for instance). This will have implications for broader replication of the approach. One cannot merely envisage the approach’s replication by an NGO or the Office du Niger because it would in that case no longer be the same approach.
>
> In Mali, for the yearly service assessment, the EvalServices tool looks at the effects of the services and the service approach by answering the following questions: *What do you like/dislike about the CPS’s approach? Does the approach use local know-how? Does the approach contribute to self-advancement within the OERT? How?*

Principle 8: Work on the institutional context and promote partnerships.

We have already underscored the interest of strengthening, or encouraging the emergence of intermediary bodies between the State, irrigation users’ organizations and private organizations to encourage these stakeholders to work together better. An important concern in the three experiments was, therefore, to encourage collaboration and partnerships (whether institutionalized or not).

> In Cambodia, the communes sign the service contracts and their involvement is seen as crucial.
>
> In Haiti, in addition to providing concrete technical and economic services, CUDES must also work on land splintering and provide advocacy services to encourage change in the institutional context.
>
> In Mali, Faranfasi So has made a considerable effort to create a climate of collaboration between stakeholders and encourage partnerships. This partnership logic was not, however, obvious at the outset for either the Office du Niger or Faranfasi So. The role of the Ségou Chamber of Agriculture was, thus, crucial—as another intermediary actor—to improving relations between the Office du Niger and Faranfasi So.

Principle 9: Adapt these principles to the context. In other words, how the context determines the basis of the approach for each service center?

Despite the ways these approaches and tools are similar in the three countries, there is no one single approach to supporting irrigation users’ organizations. Of course, there are common principles—for example, take inspiration from social water management—but each center forged its own approach in response to its local challenges. Each elaborated its own “recipe,” favored this or that aspect depending on local constraints, and adapted the approach on the fly. The examples below clearly explain the strategic decisions for each component.

In Mali, the initial diagnostic had revealed the magnitude of social conflicts around water management and maintenance (village histories, resident/non-resident conflicts) and had underscored the strong need for social mediation. Faranfasi So's approach therefore needed to give the CPS's elected farmers a large role as they could manage these conflicts better than the advisers; the elected officers (farmers) often worked in pairs with the advisers (staffs). In addition, the system needed to overcome strong inertia. To some extent, the "Office du Niger seemed a prisoner of its past"[17] and time would be needed to effect change. A lengthy (more than one year) period of time devoted to the diagnostic, awareness raising and mediation was therefore needed. With hindsight, this time was not lost, it was necessary, an investment. The Office du Niger is omnipresent, particularly on issues of water management that it brandishes as the heart of its mandate, and hence Faranfasi So needed to expend considerable energy to earn acceptance, allay suspicions and build collaborative relations. Social aspects were identified as crucial during the diagnostic (solidarities, tensions, conflicts, etc.) and so SWM-inspired approaches were favored. This is far from specifically rural engineering or water concerns, but it is true that the hydraulic system works fairly well (compared to others). When Faranfasi So hired its new OERT adviser, it therefore sought someone with an FO rather than an RE background. In order to move away from project grant approaches and to the extent that the network is after all relatively operational, "hard" aspects supported "soft" aspects rather than the opposite: mini-renovations were co-financed only for Type 2 and Type 3 OERTs. Finally, as extensive research and development experiments had already been conducted on water management, Faranfasi So did not need to re-invent the wheel; instead, it needed to capitalize on these accomplishments by encouraging partnerships (with the Institut d'Économie Rurale (IER, rural economy institute) in particular). In this way, Faranfasi So developed a logical OERT support approach that emphasized social media above all.

In Cambodia, the context is very different. Farmers' organizations are very weak and progressively structuring themselves with the help of NGOs, while the private sector is very dynamic. Small private companies that provide agricultural services (inputs, agricultural equipment, processing, transportation, etc.) are much more efficient than collective organizations. But, in the irrigation sector, with the exception of small irrigation schemes, notably pumped schemes, private stakeholders are unable to manage water services. Farmers want collective management, but are not ready to put in much effort and prefer to delegate management. There is therefore a real opportunity for collaboration between technicians and farmers. Power struggles over control of management are minimal and actors are open to change. The contractual, for-pay approach is not inconsistent with local norms. The issues are more linked to poor performance by irrigation schemes that need investments and irrigation users' organizations' access to skills and efficient management tools that even local State agents do not have. There is no intermediary training between engineers and farmers. The project therefore invested in both small renovations aiming to improve the scheme's functionality and in locally hired field agents who learned to master certain tools (GISs, basic accounting) without becoming engineers. The aim is to trigger the emergence of new professions at the interface between hydraulic engineering and farmers' know-how and covering various functions that are neglected by State services, such as accounts management and social mobilization. The approach in Cambodia is therefore the one that is most advanced in terms of contracting, with a balance between hard and soft support as systems were initially not very functional.

In Haiti, structuring irrigation users' organizations cannot be separated out from the rebuilding of civil society and the State for more than 20 years. Irrigation users' organizations contribute to the vitality of civil society organizations. They of course manage water and their schemes but are usually local powers able to dialogue with rural communes and usually with decentralized public offices or the State. They often belong to 2nd tier unions and farmers' movements, as is the case with CUDES, which is part of the CROSE social movement. The services therefore are integrated in an irrigation users' organization umbrella structure, which is itself a member of a civil society organization. Strengthening an irrigation users' organization service structure could therefore difficultly be conceived as a simple technical

[17] Speech by JY. Jamin at the 2012 World Water Forum in Marseilles.

arm separate from the farmers' organization and the social movement. There was therefore no separate institution building. Furthermore, the weakness of the State and the weak rule of law (courts) make an advocacy service indispensable, notably on land issues. The role currently played by CUDES for its member organizations is not anodyne: in the South-East Department, it is central to communes and the State services concerned, but also directly to the Haitian Ministry of Agriculture (MANRRD). Finally, detailed knowledge of irrigation schemes, their recent histories, and their operation in Haiti invites realism in regard to irrigation user fee collection: usually in Haiti since 1986, no taxes are collected in the absence of a State able to take real action. While inadequate, having attained 10% to 40% collection in CUDES's 12 irrigation schemes is already an interesting accomplishment after only a few years of support: this must be acknowledged and continued. The original aspect of the approach taken in Haiti is to combine training and pooled support services within a federation, economic services provided by two specific structures (the BIA and the CAC), and advocacy services deemed essential.

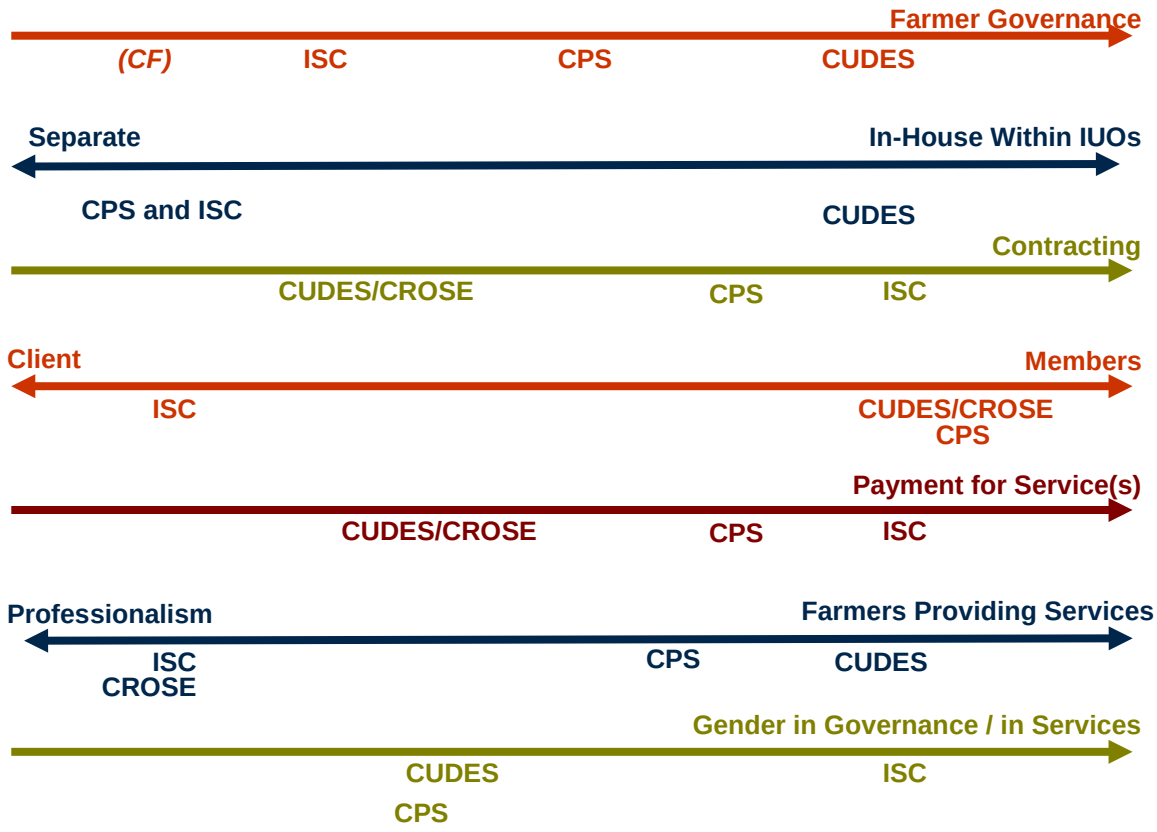
III. WHAT ORGANIZATIONAL, INSTITUTIONAL AND ECONOMIC MODELS ARE THERE TO DELIVER THESE SERVICES?

1. Institutional and Organizational Models: No One Single Model

Services are provided according to different institutional and organizational models. These differences focus mainly on:

- *Governance:* The relation between farmers and technicians play out not only in the framework of service contract definition and implementation, but also in the centers' organizational structure. Governance may be provided by farmers as is the case in Haiti and Mali, or mixed—involving a few farmers' representatives alongside other stakeholders—as is the case in Cambodia. In all three cases, there is at least minimal farmer governance. In this way, while the Malian CPSs and CUDES in Haiti are entirely governed by farmers, in Cambodia a professional structure opened its governance of a few chosen farmers' representatives. This opening was not obvious and was discussed. Furthermore, even in the case of farmer governance there are differences. In Haiti, CUDES is a federation of irrigation users' organizations and irrigation users' representatives are the ones who make the decisions. In Mali, while the farmers occupying the CPS's offices are indeed irrigation users, they are now not offshoots of the OERTs but rather other CPS-member farmers' organizations.
- *The nature of the relationship between the service center and IUOs:* The ISC in Cambodia has clients whereas the CUDES in Haiti and the CPS in Mali have members and subscribers respectively. While this client-provider relationship is proclaimed and owned in Cambodia, it is however rejected in Haiti where the associative aspect is believed to be fundamental. Despite everything, in all three approaches, irrigation users' organizations are not mere beneficiaries.
- *The method of contracting between the service center and irrigation users' organizations:* Contracting is most advanced with the ISC (where a service or set of services equals a contract) and intermediary in Mali (where there are annual contracts for sets of services). In Haiti, there are no service contracts but enrollment in the CUDES.
- *Internalizing the center in an irrigation users' organization or not:* In Haiti, the services are integrated and pooled within a federation of irrigation users. In Cambodia and Mali, the services are provided by specific organizations—the ISC and the CPS. In these two cases, establishing specific centers is, what is more, a primordial element.

The following schema provides a rapid comparison of three institutional and organizational service models based on the criteria discussed above.



The ISC in Cambodia adopted mixed governance (with small farmer participation), with strong emphasis on contracting services in the framework of a client-provider relationship in which most advisers are professionals.

The CPSs in Mali clearly assert their position as farmers' organizations, with 100% farmer governance, in a more subscriber-provider relationship in the framework of annual contracts.[18] The services are provided by engineering or accounting advisers; the elected farmers also provide certain services.

The CUDES model is also a farmer-based model as services are contained within a federation of irrigation users' organizations. Here, the client-provider relationship is rejected, and the member–umbrella structure relationship is preferred, with less contracting. The farmers often act as trainers.

Finally, the CPS and ISC models share center externalization (with externalization deemed crucial to the model) and the importance of contracts.

The CPS and CUDES models share the priority given to farmer governance.

In Mali, the institutional and organizational service model was already set before ASIrri because the 1st CPSs date back to 1995. Therefore, the project did not really innovate on this level. Nevertheless, considerable effort was made to develop partnerships around water management issues and this was something new.

[18] For all that, it is a specific farmers' organization, an advice FO. Furthermore, at the start of the CPSs, not everyone recognized the CPSs as FOs. Today, the CPSs are clearly identified as FOs by other peasant actors (Chambers of Agriculture, unions, etc.).

In Haiti, the institutional model was also largely predetermined, as CUDES and CROSE had already been around for several years. The institutional innovation was to strengthen coverage of better defined water services and agricultural training within the federation, without creating another parallel or attached structure, and to create two additional separate economic service structures: the central purchasing and marketing office and the input shop, both using a farmer governance system.

The innovation process in regard to the institutional service model was, however, more extensive in Cambodia. The challenge was to move from a project team to a service structure. Initially, several institutional models were envisaged around several lines of thought: consultancy firm versus NGO, strictly private governance versus mixed governance versus farmer governance.

2. Economic Models: Break with the Myth of Complete Self-Financing of the Services by Farmers

The question of the economic models for the services and its corollary, the viability of the models, are crucial.

However, we suggest resisting the myth of financing services exclusively by irrigation users. In light of the experience in the three countries, such self-financing seems neither possible nor fair:

- *Neither possible:* First, farmers are unable to make such payments. In Haiti, attaining a water fee recovery rate of 40% is already good progress. At this stage, it would be an illusion to demand payment for the totality of the service in addition.
- *Nor fair:* Second, some services (basic training, literacy, etc.) are more akin to public services. Providers therefore partially offset State failings. In this case, it is not an illusion, and not abnormal, to imagine that the services be partially subsidized by the State, or failing that by international cooperation, and that financing such systems must be included in national policies.

Despite everything, in all three countries, payment for part of the cost of the services is one of the approaches' central principles. Payment modalities and the level of cost coverage for the services vary from country to country (higher in Cambodia, intermediary in Mali, and lower in Haiti).

In addition, it is not only the self-financing rate that counts; the nature of the financing mechanisms set up also counts. Virtuous and innovative financing mechanisms are necessary. The CPS and ISC therefore envisaged different interesting options.

Faranfasi So elaborated a typology of its members and services, distinguishing between paid services and subsidized services. The literacy activities and support for FOs in great difficulty are seen as public services and are therefore largely subsidized by donors. Economic advice for efficient FOs, however, is self-financed by members at 70%. Overall, the structure is 30% self-financed. Its governance is 100% self-financed.

The financing channel is also interesting. Faranfasi So receives funds from the Ségou Chamber of Agriculture that delegates its rural advice tasks to it in the framework of a yearly agreement on targets. Such a financing system through national institutions seems relevant to us. In the framework of ASIrri, the establishment of an investment fund managed by Faranfasi So able to co-finance equipment maintenance for OERTs and mini-renovations was also an interesting experiment that would deserve to be expanded.

In Cambodia, the financial weakness of nearly all FWUCs makes it impossible to envisage covering the cost of the services in the short or medium term. However, two alternatives are being envisaged. The decentralization policy grants investment funds to communes that want to improve access to irrigation in their territories. They have no technical capacities, however, and are interested in the services offered by the ISC. Thus, the service contracts are always negotiated between the irrigation users' organization, the commune and the ISC.

The communes also have investment funds that they can mobilize for certain services (for example, renovations). What is more, financing from the State to FWUCs rather than to the ISC is envisaged. This is both more realistic, because there is a stronger policy interest to be found in granting resources to farmers than to technicians (private structure) and because this makes it possible to maintain a strong contractual relationship between the FWUCs and the ISC (the FWUCs pay the ISC for services), independent of the choices made by the State or donors.

With partial coverage of the service cost, criticism is therefore quick to point out the non-sustainability of this type of service system. Yet, the question of viability seems more complex to us. The question of sustainability/viability cannot only be raised in economic and financial terms. It is also appropriate to analyze social viability, institutional and legal viability, and technical viability. Here, we refer to the viability square.

Faranfasi So's experience has already shown, in 2005-2006 and again in 2012, that strong social roots can offset, for a time, a lack of financing. During this period, Faranfasi So concentrated on the most profitable services, management advice, and put the literacy services notably on hold. The Federation also relied heavily on the elected farmers to maintain the dynamics in the field. Very strong social and institutional roots allowed the organization to survive this difficult period. Strong social viability can partially offset lesser economic viability, at least for a time. Of course, the services do not fully self-fund, but Faranfasi So is nevertheless a sustainable structure, with highs and lows like many organizations.

Thus, in the current state of affairs (no agricultural quasi-taxation, no agricultural insurance, etc.), small equilibrium should rather be found. Ensure that centers self-finance at least 100% of their governance bodies to ensure their institutional sustainability and set up virtuous financing mechanisms for the rest (a mixture of dues, payments for services, public grants).

IV. WHAT PROJECT ENGINEERING IMPLICATIONS TO CARRY INNOVATIONS

Although innovation seems to be the new popular buzz word in the development cooperation milieu, one is obliged to note that the latitude to innovate in the current system is increasingly limited. On the contrary, the current development cooperation system is increasingly procedural, and seems more preoccupied with the speed of an intervention than its relevance, and even seems to be becoming frenetic.

ASIrri was formulated by project implementers from the North and the South and financed by the AFD's Facilité d'Innovation Sectorielle pour les ONG (FISONG, sectoral innovation facility for NGOs). Innovation therefore needed to be central to the ASIrri project.

It has not always been easy to know what is an innovation and an innovation for whom. With hindsight, we can however identify several elements that facilitated innovation.

Principle 1: Effect change from within the institutional context.

Institutional models should not be limited to the institutions unique to service centers: their internal governance, the type of relationship with their clients/subscribers/members, contracting processes, etc. The links maintained with other institutions and organizations also need to be examined. Locally building partnerships was therefore a crucial element in the ASIrri project in all three countries. It needed to gain acceptance and trigger shifts in institutional, and even personal, positions.

> In the case of Mali, this also made it possible to earn the acceptance of the "water authorities"—that is to say, the Office du Niger. Faranfasi So would never have been authorized to work on water management or maintenance just 5-10 years ago. At the start of the project, the Office du Niger's position wavered between mistrust of and benevolent interest in the pilot experiment. Some meetings were heated. Faranfasi So nevertheless ensured that it maintained close relations with the Office du Niger's different levels: general directorate, zone directorates, and water gate operators (*aiguadiers*). Over time, human relationships have been forged with the Office du Niger, positions have relaxed, and collaboration has emerged. Other stakeholders (the Chamber of Agriculture, unions, the Delegate General for farmers) have begun to support the Faranfasi So initiative. Faranfasi So also "ceded ground" to allow the other stakeholders to take ownership of the approach. The approach is now defended by the Chamber of Agriculture, and the Office du Niger wants to extend it to other zones. An Office du Niger agent said, "Before, I did not believe in the OERTs, but now I see that they can be stimulated."
>
> In Cambodia, it was the creation of Farmer & Water Net, a national network of irrigation users' organizations, that helped strengthen the capacity for dialogue between irrigation users and the government. State agents at all levels needed to be convinced that farmers were able to manage irrigation schemes and were therefore credible interlocutors. It is also a way for the ISC and its partners to have their advocacy messages be carried by an actor that is legitimate in the eyes of the State, notably when it comes to financing irrigation users' organizations. The goal of allowing FWUC leaders to meet and share their problems and solutions is to make them aware that collectively they are capable of addressing the State and can legitimately do so.

By entrusting delegated contract management to local partners, with discrete but effective international technical assistance, the project's institutional structure has certainly helped facilitate and shape these partnerships between stakeholders. Local stakeholders found themselves playing their real roles without outside interference. Building or strengthening national institutions that are rooted in the field and permanent is an alternative to mobilizing project teams that need to be recreated constantly. Local teams are more legitimate to dialogue with all local actors than new, short-term teams based on international support would be. It is not a question of skill but mutual knowledge, integration and networking.

This made it possible to establish or strengthen sector-based dialogue in each country. These sector-specific dialogues did however take more or less final, more or less formal and more or less institutional form depending on the case.

> In Cambodia and Mali, we talk more of sector-specific dialogue, while in Haiti this dialogue took the form of more structured advocacy conducted on the national level by FONHADI and on the local level by CUDES and CROSE focusing on the urgent need to both legalize the irrigation framework in Haiti and irrigation users' organizations, and fight the urbanization of farmland that is slowly eating away at one of the country's potential main food baskets.

The role of local delegations turned out to be fundamental to allow national stakeholders access to the project. This is a fundamental institutional relay (notably in Cambodia for access to maintenance funds and other grants). The field experience is of course crucial to allow the delegation to formulate well-argued positions on the sectoral policy stakes on which it intervenes.

The service centers also elaborated tools to bring more objectivity to sector-specific dialogues. Even if local stakeholders acknowledge that irrigation users' organizations were not functional at the start of the project (in Mali and Cambodia), or barely functional (in Haiti where organizations were more advanced at the start of the project), it was difficult for them to assess how functional they were. There was no point of reference and no criteria to determine what an operational irrigation users' organization would be. There was not really any vision of what a functional organization could be. This explains the desire in some cases (Mali, for instance) to move backwards and give up farmer management of irrigation. The service centers therefore elaborated tools to assess irrigation users' organizations and typologies that could be used to determine what an operational irrigation users'

organization is. What are the minimal functions they must fulfill? What are the main institutional and organizational development stages that they must attain? The aim is to reach some form of agreement on this basis, which then enables dialogue on the resources to make available to achieve this. These tools helped facilitate the elaboration of a shared vision of irrigation users' organizations and renewed the hope that farmers could manage irrigation. A high official in the Office du Niger said, "Before ASIrri, I did not believe in OERTs, but now I see that they can function."

Principle 2: Find the right amount of institutional change: neither too much nor too little.

Another important question at the heart of the ASIrri project was to evaluate the magnitude of institutional change that could be made. How much latitude was there? How could acceptance be earned? How could the right pace of change and innovation be found? This implies monitoring and evaluating the action constantly, evaluating actors' position shifts, modifying schedules, agreeing to undertake perhaps less ambitious processes that would however generate less resistance or that would be carried by the other stakeholders.

> For instance, in Mali, certain drastic changes in the OERTs were not proposed to ensure that the Office du Niger would subscribe to the approach. A total overhaul of the OERTs was not envisaged; we needed to start with what existed, even if it existed almost exclusively on paper. At least, the institutional framework need to be respected.
>
> We needed to advance cautiously in this new area of freedom allowed to Faranfasi So. Faranfasi So's position shifted: It sometimes needed to assert itself even at the expense of generating small conflicts, and sometimes needed to cede ground to ensure the adhesion of the other stakeholders. Discussions are currently underway to extend the ASIrri approach to other zones in the Office du Niger, and Faranfasi So has fallen in step behind the Ségou Chamber of Agriculture, which has become the approach's standard-bearer. Faranfasi So (and IRAM) needed to step back so that the other stakeholders could also take ownership of the "baby."

Principle 3: Take the time to innovate or the urgency of taking one's time.

The current development cooperation system is becoming frenetic. As Edgar Morin said, "By sacrificing the essential for the urgent, one ends up forgetting the urgency of the essential." Unfortunately, the time needed for innovation is not the time available in the current development cooperation system. Yet it is urgent to take one's time.

The time taken to innovate is an investment, it is useful time not lost time.

> The ASIrri project's formulation and contracting are interesting in this regard. The project began to be formulated in 2007 and was initially slated to begin in mid-2008. However, it ultimately took more than six months for the financing agreement to be signed (it was the first FISONG support granted by the AFD). Nevertheless, activities began in Mali even before the signature. A first diagnostic study was also conducted for six months. This period was also a long awareness raising phase for the parties involved: OERTs, Office du Niger, CPS farmer leaders. The first services were truly provided in mid-2009, after one year of awareness raising. With hindsight, this full year of awareness raising was valuable.
>
> The discussions between the Mali and Cambodia teams in mid-2010 also showed that the time needed for innovation was not the same in the two countries.

While the FISONG tool is interesting in several regards (flexibility, simplicity of procedures, identification of intervention topics with NGOs), we can however regret that it only accompanies innovation projects over a short period of time. It is difficult (perhaps even an illusion) to limit such innovation processes to a period of three to four years. In all three

cases, the innovations need to continue. Next, the lack of relay financing for consolidation is also an important limitation. Indeed, even though considerable progress has been made in all three countries, the results and effects are still fragile.

> In Mali, tools were elaborated to activate the OERTs at grassroots level and launch a broad partnership between the stakeholders but many stages still need to be attained. The innovation must be able to be continued to accompany the OERT's future development stages, support their structuring to move toward higher levels, and make the connection with more complex issues on the overall system level.

Principle 4: Renovate R&D?

What if one of the project's innovations was simply to have done research and development again? While the current trend seems to be one of more and more limited projects with increasingly weighty procedures, ASIrri left room for research and development and its flexibility. ASIrri therefore allowed itself to doubt, experiment, and adjust its methodology on the fly.

> For example, in Mali, a tool elaborated by researchers (CalCul) was introduced in the CPS for the first year of service provision before being discarded.

Particular attention was given to monitoring and assessment although it was not limited to the indicators in the logical framework.

Principle 5: Divide roles efficiently and effectively between NGOs to innovate.

ASIrri was built on longstanding north-south partnerships. Furthermore, FISONG demanded this be the case.

> GRET and CEDAC had worked together on the Prey Nup (1998-2007) and Stung Chinit (2001-2007) projects.
>
> AVSF had been active in the irrigation sector in Haiti since 2000, and had accordingly supported the emergence of the CUDES and FONHADI. Its relationship with CROSE was also longstanding and close.
>
> The relationship between IRAM and Faranfasi So date back to 1995 in the framework of the PCPS service provision center project, that underwent several phases from 1994 to 2005.

The existence of these longstanding partnerships certainly helped improve the project's efficiency and effectiveness. Remember that the budget for each component was only approximately €300 thousand.[19] The trust between partners most likely lowered transaction costs. The outside final assessment thus determined that the project structure and organization was very efficient.

The complicity and mutual respect made it possible to find the right *modus operandi* and the right division of tasks. The partners complemented each other, with each having its own area of expertise. The local partners were in charge of implementation in the field, day-to-day steering of the interventions (they set the pace), adapting the innovations to the context, and relations with local actors. The NGOs from France provided efficient and discrete technical assistance (to allow the actors to play their true roles). This assistance focused above all on methodology support, monitoring and assessment, analysis and documentation, and programming support aspects. ASIrri's approaches were therefore elaborated jointly.

[19] Cambodia: €375 thousand, Haiti: €310 thousand, Mali: €231 thousand, Crosscutting: €305 thousand.

Principle 6: Pool experience and analyze and document it.

An entire component with diverse activities was devoted to pooling experience: reciprocal exchanges (in Mali and Cambodia), support visits from IRAM to the three field components to launch the analysis and documentation (provide methodology tools), an outside final assessment, a three-country closing workshop, a collective analysis and documentation process producing a range of materials.

This experience exchange, analysis and documentation component thus began timidly in 2009 with the drafting of orientation papers and analysis grids, took form in 2010 as the first mutual exchanges, and culminated at the end of 2011 and in 2012 with workshops and the analysis and documentation.

Ultimately, a large body of material is available for a wide audience:

- short films in French and English on each of the country experiences that can be used in advocacy and to launch workshops and training courses (on DVD and as compressed files available via Internet);
- methodology handbooks destined above all for the field operators in each of the components (eight handbooks in English and/or Khmer in Cambodia, five handbooks in French in Haiti, and ten handbooks in French in Mali);
- a website also distributed in the form of a CD-ROM that fully documents the project;
- this issue of *Traverses* available in two languages (English and French);
- a photography exhibit titled “Regards paysans sur l’irrigation : Molodo, Office du Niger, Mali” [farmers’ view of irrigation: Molodo, Office du Niger, Mali] in black and wife destined for a wide audience in Mali and France.

For several of these products, the NGO group called on a provider specializing in communication for development.

This crosscutting component (coordination, monitoring and evaluation, mutual exchanges, and analysis and documentation) managed by IRAM took up 25% of the total budget.

In addition, the outside final evaluation of the project determined that the existence of this independent component devoted to analyzing, documenting and exchanging experiences was a true innovation.

Principle 7: Stay flexible.

A relatively broad and fairly un-prescriptive project document designed to allow innovations and modifications certainly facilitated the innovation process. The overall rationale was clear, the overall approach was specified, but the content of the activities and outcomes was fairly open. Furthermore, the logical framework did not contain numerical indicators or target values, which are often too restrictive. The project implementers adopted “an open approach to innovation that does not kill creativity through overly standardized definitions.”[20]

The project also benefited from fairly flexible procedures within the AFD, which give project implementers considerable latitude and allow constant adaptations. The procedures were also not very limiting. For example, a contractual budget in large blocks and not activity-by-activity enabled adjustments. The financial structure and reporting was based more on trust a priori and verification a posteriori (audits) than on a priori constraints. The project implementers also faced few risks (ineligibility, for example).

[20] “Le réseau comme modalité d’accompagnement et de co-apprentissage. L’exemple du projet Appui aux Irrigants et aux Services aux Irrigants (ASIrri)”, Geert Vanderstichele, Cota, 2012.

CONCLUSIONS

The first conclusion that can be reached from these three experiences is that farmers can manage irrigation if appropriate support is provided to irrigation users. However, one should avoid falling under the thrall of the myth of 100% farmer management. These experiences have, on the contrary, shown the relevance of supporting the emergence of or strengthening intermediary organizations to accompany irrigation users' organizations. Another myth to sweep aside is thinking that irrigation users will be able to cover 100% of the cost of the support services. On the contrary, the three experiences show that this is neither possible nor fair in the current context. While affirming the need for at least partial payment for the services by irrigation users, the aim is rather, in the short term, to find a "small equilibrium" based on virtuous financing mechanisms (dues, payments for services, public subsidies for certain services via appropriate channels, etc.).

The second conclusion, which may seem obvious, is that there is no one single model for the provision of services to irrigation users. ASIrri is, on the contrary, the story of three institutional innovation processes adapted to each context. Nevertheless, a comparative analysis of these three processes identified certain common principles, principles that are then applied in unique ways in each context.

The third conclusion is that certain forms of project engineering can facilitate innovation processes. Yet, although innovation seems to be the new fashionable buzz word in the development cooperation milieu, the latitude for innovation available within the system seems to be dwindling more and more every day. In this regard, the FISONG tool has advantages (flexibility, co-elaboration by the AFD and NGOs, etc.) and weaknesses (short duration, no relay financing, etc.).

In the field, the three experiments undertaken will now face several challenges: consolidating the innovations that have already been accomplished, replicating/extending the project taking care to handle up-scaling issues and the risk of altering the quality of the processes, and continuation of the innovation process to meet the new challenges that will not fail to appear. Innovation is a process, one that will continue. To be continued, therefore!

Appendix 1: Acronyms and Abbreviations

ASIrri	Projet d'Appui aux Irrigants et aux Services aux Irrigants [support project for irrigation users and irrigation user services]
AFD	Agence Française de Développement [French development agency]
FISONG	Facilité d'Innovation Sectorielle pour les ONG [sectoral innovation facility for NGOs]
IUO	Irrigation Users' Organization
NGO	Non-Governmental Organization
FO	Farmers' Organization
RE	Rural Engineering

Cambodia

CEDAC	Centre d'Études sur le Développement Agricole au Cambodge [center for studies on agricultural development in Cambodia]
FWN	Farmer and Water Network
FWUC	Farmer Water Users Community
FWUG	Farmer Water Users Group (a subdivision of a FWUC)
GRET	Professionnals for Fair Development
ISC	Irrigation Service Center
MOWRAM	Ministry of Water Resources and Meteorology
PDOWRAM	Provincial Direction of Water Resources and Meteorology

Haiti

AVSF	Agronomes et Vétérinaires Sans Frontières [Agronomists and Veterinarians Without Borders]
CROSE	Coordination Régionales des Organisations du Sud-Est (or KROS) [regional coordination of organizations in the south-east]
CUDES	Coordination des Usagers de l'Eau du Sud-Est (or KIDES) [coordination of water users in the south-east]
FONHADI	Fondation Nationale Haïtienne de l'Irrigation [Haitian national irrigation foundation]

Mali

CPS	Centre de Prestation de Services Faranfasi So [Faranfasi So service provision center]
CRA	Chambre Régional d'Agriculture [regional chamber of agriculture] (in Ségou)
FCPS	Fédération des Centres de Prestation de Services Faranfasi So [federation of Faranfasi So service provision centers]
IER	Institut d'Économie Rurale [rural economy institute]
IRAM	Institut de Recherche et d'Applications des Méthodes de Développement [institute for development method research and applications]
OERT	Organisation d'Entretien et d'Exploitation du Réseau Tertiaire [tertiary network maintenance and exploitation organizations]

Appendix 2: Presentation of the ASIrri Project

The ASIrri Projet d'Appui aux Irrigants et aux Services aux Irrigants (support project for irrigation users and irrigation user services) is a joint initiative by **development partners from developed and developing countries:** AVSF, CEDAC, CUDES, CROSE, Faranfasi So, FONHADI, GRET and IRAM.[21] The project is financed by the AFD through the FISONG (its sectoral innovation facility for NGOs).

Initially slated to last three years in the field, the project was extended to three and a half years (early 2009 to mid-2012) (the AFD financing agreement ran from 12/2008 to 12/2012). It has a total budget of €1,221 thousand, spread out over the 4 components: €375 thousand for the Cambodia component, €310 thousand for the Haiti component, €230 thousand for the Mali component, and €305 thousand for the crosscutting component.

The project's **overall objective** is to ensure management of irrigation schemes and optimize these schemes for agricultural production by working to make irrigation users' associations and support and service systems sustainable.

ASIrri has the following **specific goal:** elaborate, test and foster the sustainability of support modes and service provision targeting irrigation users for sustainable farming in irrigated zones in three different national contexts (Haiti, Cambodia, Mali), taking advantage of the different experiences across sites to maximize exchange, co-learning and analysis and documentation.

The group leader is IRAM, and each component has its own delegated contract management:

Component 1	**Cambodia:**	GRET and CEDAC
Component 2	**Haiti:**	AVSF and CUDES/CROSE
Component 3	**Mali:**	IRAM and Faranfasi So
Component 4	**Crosscutting Issues**	IRAM

A central steering committee was set up, bringing together AVSF, GRET, IRAM and the AFD (as an observer); it meets once a year. Each component set up its own steering and monitoring bodies appropriate to the local context. AVSF, GRET and IRAM also meet regularly to monitor needs and discuss the project's technical content (notably in connection with the crosscutting component).

ASIrri has therefore led three institutional innovation processes:

For instance, in **Cambodia,** an Irrigation Service Center was set up in Kampong Thom Province and provides services to seven Farmer Water User Communities taking advantage of GRET's and CEDAC's experience supporting irrigation users and following a new institutional model (private service center instead of a project structure). Services of different natures (technical, institutional/organizational, financial/economic) have in this way been elaborated and tested. A federation of irrigation users' organizations was set up and brings together 12 FWUCs from eight provinces.

[21] AVSF: Agronomes et Vétérinaires Sans Frontières [Agronomists and Veterinarians Without Borders]; CEDAC: Centre d'Études sur le Développement Agricole au Cambodge [center for studies on agricultural development in Cambodia]; CUDES: Coordination des Usagers de l'Eau du Sud-Est (or KIDES) [coordination of water users in the south-east]; CROSE: Coordination Régionales des Organisations du Sud-Est (or KROS) [regional coordination of organizations in the south-east]; the Fédération des Centres de Prestation de Services Faranfasi So [federation of Faranfasi So service provision centers]; FONHADI: Fondation Nationale Haïtienne de l'Irrigation [Haitian national irrigation foundation]; GRET: Professionals for fair development ; and IRAM: Institut de Recherche et d'Applications des Méthodes de Développement [institute for development method research and applications].

In **Haiti,** a federation of users based in Jacmel supports irrigation users' organizations in southeastern Haiti: here, it is a pooled system of services for IUOs. Furthermore, the project has set up a central purchasing and marketing office and an agricultural input shop. National exchanges are also conducted through the FONHADI (notably on the issue of land splintering). It should be noted that the earthquake in January 2010 had a significant impact on the project.

In **Mali,** the project allowed the Faranfasi So federation of service provision centers, present since 1995 in the field of management advice, legal advice and literacy for farmers' organizations, to diversify its services and reach out to OERTs (tertiary network maintenance and exploitation organizations). The aim is to set up new services to support water management for "new" organizations (the OERTs). The CPS in Molodo where the pilot action took place has therefore acquired new skills that are being analyzed and documented to be duplicated in the four other CPSs (after ASIrri). Seventeen OERTs have joined the CPS, and more than half have shown significant progress to date. Progress has been slower where problems were larger at the outset. By insisting on partnership-based approaches with the Office du Niger, the Chamber of Agriculture, and the Institut d'Économie Rural [rural economy institute] notably, Faranfasi So is in this way becoming recognized as a new skilled actor in the field of water management and succeeding in activating the OERTs.

In this way, in three different contexts, the project is conducting research-action-training, that is to say innovation processes around service provision models and irrigation users' organizations.

The **crosscutting component** managed by IRAM has enabled several activities:

- Overall project coordination: steering committee meetings, reporting, donor relations, running/coordinating the group.
- Pooling experience and analyzing and documenting the project: two crosscutting exchange missions in Mali and Cambodia for the three project teams, three analysis and documentation support missions in Mali, Cambodia and Haiti, running the experience analysis and documentation process, organization of the closing workshop, coordination of analysis and documentation elaboration. The following products were elaborated: three country videos (8 to 9 minutes each), an online CD-ROM containing all project analyses, documentation and reports, methodology handbooks for each country, and this publication.

Appendix 3: Brief Comparison of Three Service Systems

	HAITI	MALI	CAMBODIA
ASIrri Partners	AVSF, CROSE, FONHADI	IRAM, Faranfasi So federation	GRET, CEDAC
Service Structure	CUDES	Molodo CPS Service Center	ISC
Name (headquarters)	Coordination des Usagers de l'Eau du Sud-Est (Jacmel)	Centre de Prestations de Services de la Zone de Molodo (Molodo)	Irrigation Service Center (Kampong Thom)
Type	Federation of irrigation users' associations	Farmers' organization service center	Private service center
Structure Purpose	irrigation user representation in a social movement (CROSE), intermediary for outside support, support and technical training for member associations	provision of diverse services (literacy, legal services, management, farm management advice, etc.) to member associations (village associations, women's groups, etc.)	setting up (hydraulic, financial, etc.) services on a contractual paid basis for irrigation users' associations in various areas of the country
Members	12 irrigation users' associations (small irrigation schemes in the South-East Department)	farmers' organizations, village associations, women's groups (+ the 17 OERT)	GA = 3 FWUC + 1 FWN + 1 CEDAC + 2 experts + 12 employees
Status	Association (2005)	Association (1997)	NGO (December 2011)
Governance & System	Executive Board (13 IUA representatives) + Supervisory Board (24) + Delegates' Assembly (24)	Executive board (farmers delegates) and farmers' supervisory board + 7 advisors	BoD (6 members: 1 technical expert, 1 NGO, 1 FWN, 1 FWUC, 1 director, 1 staff representative)
Schemes Concerned (ha)	Léonce Édouard et Indigoterie, Lafond, Massacre, Jean David, Cajun, Anse-à-Pitres, Rodaille, Belle Roche, Lavaneau, Orangers	Portion of the network corresponding to irrigation sluices M1, MD1 and MD2 in the villages of Molodo, Bamanan and Niaminani	Stung Chinit East (400) and North (2,500), Machu Nga (80), Pram Kumpheak (490), Teuk Chha (4,000), Sdao Kong (200), PUAC, Prey Num (10,500)
Irrigated Surface	approx. 3,000 ha	approx. 450 ha	approx. 20,000 ha
Services			
Members or clients	The 12 member associations in CUDES (approximately 5,000 users) + the general irrigation sector (FONHADI)	17 tertiary network maintenance organizations (17 water right holders of the 32 from the MD1, MD2 and M1 irrigation sluices) that joined the Molodo Service Center + other member FOs	12 FWUC in 8 provinces (206 villages, 20,000 farmers, 23,000 ha irrigated)
Service center set up	No service center as such: strengthening the services provided by CUDES	Voluntary enrollment by OERT (non-operational) in the service center through payment of a registration fee and dues	Contract negotiation process with FWUCs and communes
Institution Building	Drafting of articles of association and by-laws, registration (legalization), training in structuring, advocacy + FONHADI advocacy (national level)	Elaboration of articles of association and by-laws, explanation of State/Office du Niger/Farmer contracts, legal mediation, revision of by-laws (penalty system, etc.)	Re-activation of FWUCs, creation of FWUGs, enrollment, dues, elections, articles of association and by-laws. FWN creation and institution building, advocacy
Diagnostics	Agro-socio-economic description of 8 schemes in Côtes de Fer	Hydraulic diagnostic, elaboration of mapping tools (network maps), agronomic and socioeconomic diagnostic	System diagnostic, users' association typology, interactive mapping, database
Water Management	Water turn revision	Training in tertiary operations and water management in the tertiary network, consultation on social water management (conflict mitigation), differentiation of the difficulties encountered within the OERTs	Set up water management and sharing rules
Training Courses	Training in operating irrigation networks (2 members per association + 6 members of the EB), plot-level water management training, market gardening training, banana growing	training in tertiary network maintenance techniques, training in joint planning of crop year activities, training in bookkeeping/management	training FWUC representatives in socio-organization, network management and maintenance, financial management
Investments	construction of the premises of the central purchasing and marketing office and agricultural input shop / CUDES offices	Material support for OERTs (maintenance kits), minor renovation of the tertiary network (10 OERTs)	Infrastructure renovations (4 schemes)
Fee Management	Assistance calculating the fee and setting up collections for two associations	Awareness raising reflection on setting up contributions to tertiary network maintenance	Budget elaboration and resource mobilization, fee collection
Supply	Elaboration of a business plan, setting up a revolving fund for the agricultural input shop, training staff in stock management and simple bookkeeping (launch in progress)	-	-
Marketing	Elaboration of a business plan, construction and launch of the central purchasing and marketing office, definition and elaboration of articles of association, establishment of the board of directors, assessment of effectiveness and adjustment of the management mode and system, conducting of advertising campaigns (posters, radio, open houses, canvassing)	-	-
Financial Management	Training in administrative and financial management for IUAs	Training in administrative and financial management, elaboration of post-diagnostic action plans	Accounting, budget preparation, financial management, grant applications, technical and financial reports, audits

Developing sustainable services for marginalized populations… Building and making sustainable support services that respond to the populations' needs… Reinforcing but not smothering local organizations and technical service providers… Determining methods and know-how to achieve an ideal of development that puts local populations at the heart of the intervention… These are the subjects discussed by *Traverses*.

The institutional dimensions of development have long been neglected due to an overwhelming focus on concrete results. They are once again emerging as a major issue. Far from the idyllic image of consensual development, development operations give rise to complex actors games and strategies, which must be understood and considered. It is necessary to move beyond the "boilerplate" discourse and discuss the "recipe" of the intervention. Designed for development practitioners, the Traverses series seeks to contribute to the strategic and methodological debate on these questions, with a multidisciplinary approach. We welcome working documents, intellectual literature, and analyses of lessons learned from field experiences which are noteworthy in terms of analysis and methodology.

The *Traverses* series is edited by Groupe initiatives, composed of ten French international development organisations who share a common ambition to support development that genuinely serves local populations via action-research and institutional capacity-building. Texts are selected and approved by an editorial committee made up of representatives of Groupe initiatives member organisations: Barbara Guittard (AVSF), Anne Lhomme (IRAM), Arkouk Areski (GRDR), Olivier Grosse (APDRA-F), Blandine Le Bourgeois (CIEDEL), Christian Lespinats (HSF), Jean-Philippe Delgrange (Essor), Swann Fauveaud (GERES), Nicolas Moreau (ID) and led by Christian Castellanet (GRET).

Issues of *Traverses* are available free on the Groupe initiatives website (*www.groupe-initiatives.org*). Some can also be downloaded from the AVSF's, GRET's and IRAM's websites (*www.avsf.org*, *www.gret.org*, *www.iram-fr.org*).

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