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The potential of platforms to promote agricultural innovation development and diffusion in Fiji

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Abstract

Key actors of the Fijian Agricultural knowledge system (AKS) were interviewed with a questionnaire to evaluate the potential of platforms as means for better co-operation to improve agricultural innovation development and diffusion. The analysis showed that a number of small structures or networks existed that could be perceived as platforms. The majority of platforms were donor-funded projects or commodity boards. Experts were seen as essential for platform leadership as the capacities of local research and extension staff remained weak. Strengths of the platform model were identified as such: better co-ordination, improved linkages, better interplay of actors, better means to reach goals and better use of resources. Weaknesses were seen in the need to achieve consensus and co-ordination, the weakening of hierarchical authority due to increased flexibility, and the general lack of experienced-trained staff in the Ministry.

Introduction

Fiji is a small island nation in the South Pacific. The agricultural sector is almost exclusively based sugar cane that accounts for 90 % of agricultural export earnings. Past efforts to diversify agricultural production were not successful. Weaknesses in the research process, inappropriate extension methods and linkage and communication problems between the key actors were among the main reasons for the limited output of viable agricultural innovations by the Ministry of Agriculture, Fisheries and Forests (MAFF) in the past.

The agricultural knowledge systems (AKS) approach was used as the basic framework for analysis (cf. Nagel 1980). Newer concepts of Röling 1992 and Engel 1995 were modified and adapted to postulate a "platform model" (cf. Bachmann 2001).

The term "platform" stands for a group of individuals of institutions working together for a given time. These actors with different qualification (research, extension, donors, policy, market, farmers, etc.) join voluntarily such platforms, or in other words working groups or networks. All share the goal to develop an agricultural innovation and to introduce it into practice. Figure 1 illustrates the model.

In the agricultural farming community (resource base, „reality“) several farmers can be regrouped in „user domains“ with similar problems (e.g. pineapple production and export marketing). Interested actors recognise this problem and decide to set up a platform to address the problem and develop an appropriate solution. Other platforms

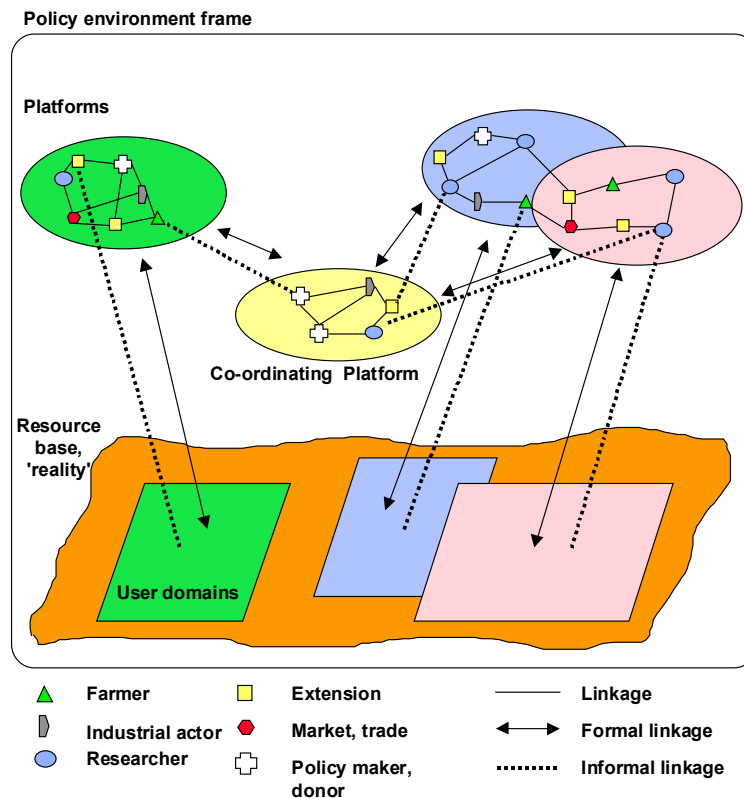


Figure 1: Platform model

may be set up to solve other user domain problems. Within platforms all actors are closely linked and collaborate intensively. Different platforms may be linked formally if there are interesting areas for co-operation. Besides these formal linkages, individual actors may maintain informal links to actors in other platforms. Equally formal and informal linkages exist between actors in the platform and the resource base. Platforms may overlap if key actors are members in different platforms. This strengthens both formal and informal linkages and

improves overall system co-operation. In a situation with many active platforms a co-ordinating centre may be necessary. This could be perceived as yet another platform with links to all other platforms. If a platform co-ordinates many actors from different institutions, it will never execute a strong control as in a strictly hierarchical system. The actors in the different platforms are in the end responsible to their institutions or organisations. In reality this may mean that in extreme situations platforms split up in order to reflect fundamentally different approaches or actor profiles. Co-ordination thus becomes a difficult balancing act and constant re-negotiation is required to keep platforms operational.

The main driving force for all actors is the understanding that co-operation is the only means for all to reach their goal (more chances for success and likely better solutions than any actor could achieve on his own). In the course of this work, all actors agree on common working procedures and thus determine the agenda of the platform: meeting sequence, separation of tasks, information exchange protocols, resource sharing, and other emerging points which may appear necessary.

Materials and methods

In total 41 respondents from key actors within the Fijian agricultural knowledge system (research, extension, MAFF top management and experts) were interviewed with a questionnaire. This sample included 10-20 % of the staff of the respective MAFF divisions and about half of all experts working in agriculture. It thus represents a good sample for the Fijian AKS. Prior to answering the questions, the respondents were asked to read a two-page outline of the platform model. The key question was to which extend platforms could be a suitable means to improve the efficiency and performance of MAFF and the Fiji AKS as a whole? It is important to note that the questions were based on what the respondents thought about the model, not on their practical

experience working with the model. Nevertheless, some practical experiences were included also, as several respondents have worked in donor-funded projects that could be perceived as such platforms. Such a retrospective assessment, which implies an ‘unconscious’ application of the model, is not the same as if a platform had been set up and managed with full intention. These limitations should be kept.

Results

Platforms as linkage mechanism

‘The platform model appears as a flexible solution that permits relevant people to work together, without the need for the creation of new formal units’. In the first question, the interviewees were asked to comment on this statement and express their opinion on the suitability of the model to solve the linkage problems within the Ministry.

The researchers all agreed on the suitability of the approach. Replies ranged from a simple¹ “yes” to “*strongly feel that the approach will solve linkage problems.*” One researcher further specified “*as a participatory approach, the platform approach suits well to the RRA/PRA methodologies introduced earlier.*”

Extension (ED) staff confirmed the suitability as well. Fourteen staff members welcomed the approach with a simple “yes.” Others were more enthusiastic by saying: “*really suitable*” and “*better way*”, “*saves time and money*”. One comment stresses the dissatisfaction with the current Ministry set-up and welcomed the platform model “*...the platform approach is long overdue in our Ministry. It has been observed that most projects undertaken by the Ministry were undertaken without consultation and dialogue with the right personnel.*”

The experts rated the approach more reservedly. Four experts confirmed the potentials, while two experts considered the approach as non-feasible. The advantage of linkages was stressed strongly: “*fully agree, informal linkages are the key, whereby those key players in an area need to form linkages.*” Others pointed to the fact that the idea is not at all new: “*platforms already exist in successful projects*”, “*several projects ... have adopted this approach and provide platforms to different degrees.*” A weakness that was raised was that linkage problems may be due to “*human nature*” and therefore not all problems could be solved by the approach.

These first comments showed that the model was acknowledged with interest and the majority of the interviewees rated the approach as useful for improving linkages.

In the second question, the groups were asked to comment on the following statement: ‘An advantage of platforms is, that depending on the actual work activities (e.g. technology generation or dissemination) relevant actors can increase or decrease their input relevant to the work needed for the platform. Not all actors need to be fully engaged at all times, which saves time and resources.’

Again all researchers confirmed the statement as very relevant. Specific advantages were seen in “*complementary roles*” and “*absence of duplication*”. “*Being informed about things*” was seen as another positive aspect of platforms. “*recognition*” was mentioned as an important steering instrument for platforms.

Extension staff equally strongly supported the statement, which was best illustrated by some of the adjectives and words used: “*fine*”, and “*excellent*”. A few staff added some potential limitations of the approach: “*depends on the location*”, “*consultation necessary*” and “*full participation required.*”

¹ To preserve more of the richness of the interviews, many of the comments were listed as quotes without immediate comment.

The experts agreed to the increased flexibility in platforms and the potentially better resource use. But from experience, one expert raised the point that economies of time through platforms should not be overestimated: *“much effort is required to keep all parties up to date with current states of affairs.”* Other problems associated with flexibility and voluntary access to platforms were raised as questions: *“how to ensure people interact in areas of need and not interest.”* and *“a major problem with informal networking, is how to maintain co-ordination and avoid anarchy!”* The comments indicated that platforms can create additional flexibility, but as the last comment stressed, the limits to a free choice of platforms in small organisations like Fiji MAFF are likely to be rather narrow.

To assess the potential of platforms to create functional links to actors outside MAFF, the groups were asked to comment on the following statement: ‘Platforms which aim at a particular commodity (e.g. ginger, fruits, coconuts, dairy) or more general aspects (e.g. farming systems, agroforestry) could bring together relevant staff from different divisions, subject matter specialists, project experts, interested farmers and members of respective commodity boards or other market actors to achieve innovative progress’. Both researchers and extensionists agreed with the statement. The parallel between platforms and commodity boards was acknowledged directly by one expert *“agreed, except a commodity board is probably already a platform. An effective commodity board certainly is!”* Commodity boards were seen as efficient structures, and the existence of commodity boards was rated as a good indicator for the chances to achieve innovative progress: *“where (platforms) do not exist, the likelihood of success is very low.”* Two existing commodity boards in Fiji were considered as a suitable example. The functioning of these boards, however, also caused some problems: *“the case in point there is now an industry group involved in ginger and another in taro but here appear to be inadequate resources from MAFF to address the major issues confronting these commodities.”*

The case showed that funding was considered as a crucial problem. This was also raised in another comment *“platforms need money to run. Who is going to pay for subsistence platforms?”* Another comment took a similar direction and stressed the need to provide incentives for farmers and the private sector to support their participation in platforms *“only very few are able to invest time and resources in such a network.”*

Leadership and co-ordination in platforms

Platforms need leadership to pursue their goal of developing a certain innovation. Table 1 depicts the result of a leadership ranking. All three groups had different views on the question, ‘which actor might be most suitable for platform leadership’. Researchers saw the highest potential in the private sector (2.8), followed by top management (2.6) and themselves (2.5). Extension staff rated experts, top management and themselves all on the same level (2.6) as the actors with medium to high potential. The experts rated themselves as the only actor with high potential² (2.9) followed by the private sector with medium potential (2.3). The fact that all actors included themselves in the group of actors with higher potential, showed that all groups showed a good self-confidence. Researchers gave their lowest rating (2.1) to experts, while extension attributed the same rating to farmers. The experts considered MAFF top management as the actor with the least potential (1.2). The following comments justified the ratings given. The RD

² Interesting leadership reflections were raised in this comment: *“I’m certain I could design some strong platforms with a large local component. I would almost invariably include a foreign element, not because it is foreign but because that is the source of specialist advice, which is often essential.”*

and the ED ranked top management high as they have the “*authority*” and “*the final say*”. Experts rated them low because they saw the “*risk of work overload*” and the fact that management has “*other priorities*.”

Farmers were seen as an actor that “*should lead*”, but that are limited by “*poor accessibility*” and lack of “*empowerment*” that predetermines their role often as only to “*provide information*.” Both research and extension had some potential to “*co-ordinate and facilitate from their areas*”, but they were “*restricted*” by the existing hierarchy and “*superiors*”. In particular, for extension it was mentioned that the “*role could improve their status and motivation*.” EP&S were rated to have some potential for leadership, but others considered them as “*too economical*” and “*technically unsound*.” Experts reached the highest overall recognition due to their “*good knowledge*” and “*expertise*”. Their main weakness was seen in the fact that they are “*outside*” MAFF and their contributions may “*not be sustainable*” due to their short term assignments and limited presence to guide a platform over a longer period of time. The private sector was equally recognised as an actor with high potential due to its “*independence*”, “*good contacts to farmers*” and proven success for example in the sugar industry. However, the actor’s weakness was stated as “*little time*” and at that time the linkage was viewed as “*under developed*.”

Table 1 Potential of different actors for platform leadership

Actors	Potential for leadership			Overall
	Researchers (n=8)	Extensionists (n=21)	Experts (n=6)	
Experts	2.1	2.6	2.9	2.53
Private sector	2.8	2.3	2.3	2.47
Extension	2.3	2.6	2.1	2.33
Research	2.5	2.4	1.9	2.27
MAFF top management	2.6	2.6	1.2	2.13
Farmers	2.4	2.1	1.7	2.07
Economic Planning and Statistics (EP&S)	2.3	2.3	1.3	1.97

Scale: 1 = low; 2 = medium; 3 = high.

Capacities at the research and extension divisions are probably still too weak to take up a responsible platform leadership. However, some potential is there, as earlier training courses on participatory methods demonstrated. Private sector actors already play an important role for established commodities such as ginger or taro. Private sector actors would have an interest to gain something out of the co-operation with the Ministry. At present, the Ministry with its slow bureaucratic structure certainly does not yet appear a very attractive partner. The existence of a platform structure with flexible funds might change this impression quickly. For these reasons, a start-up promotion of platforms is likely to require expert assistance.

Besides co-ordination between individual actors of each platform, overall co-ordination is equally important. In a new question, the interviewees were asked if an overall co-ordination platform was necessary, and if the directors of the existing MAFF divisions plus project experts or other actors would be suitable to take over this role.

The majority of research staff (6/8) approved the above suggestion as a suitable option for co-ordination platform. The remaining two officers preferred middle management staff or a board of private sector actors and farmers. Among extension staff, the majority (15/21) opted for the above proposal as well.

The experts discussed the topic very controversial. Comments supporting and rejecting it, were made³. A co-ordination platform was considered as “*somewhat artificial and not sustainable.*” More pragmatic, the need for a co-ordination platform was seen to “*depend on how many competing platforms (projects!) were being facilitated simultaneously.*”

If the Ministry started experimenting with only a few platforms, an additional co-ordination platform would certainly not be necessary. These few platforms could then be linked closely to the Ministry. Only if all work were organised in platforms, a co-ordinating platform would become necessary.

Driving force for platforms

A main assumption of the platform model is that the main driving force for different actors to work together in platforms is the formulation of a common goal and the joint understanding that this goal can only be achieved by close co-operation. The interviewees were invited to comment on this assumption and if necessary, to suggest additional incentives necessary to set-up and run platforms.

Among the researchers, three officers considered a joint goal as a sufficient driving force for platforms. Three other staff mentioned several incentives that were necessary to make platforms operational: autonomy, financial gain, recognition, satisfaction and other physical benefits. One officer suggested “*an institution building process similar to the approach of PRA/RRA training*”. Extension staff saw the issue similar and added the following incentives: “*flexible support service*”, “*feedback and impartiality*” and “*daily practice*”.

The experts agreed that a joint goal on its own was not sufficient to set-up and maintain platforms. Similar to RD and ED staff, a number of different incentives were mentioned. Resources and funding continuity were seen as the crucial factor: “*would require a sustained support system (donor?) until positive results become apparent to those involved.*” One expert stressed that besides external funding, MAFF should make better use of its own funds. Other important aspects focused on the question of status and recognition: “*job satisfaction, remuneration, medals. Being seen as a key player ... at least being able to say ‘we did that’.*”

These comments provided a clear indication that a joint goal by itself is not a sufficient incentive to keep platforms operational. A joint goal will help to provide direction and facilitate consensus, but it cannot stand-alone. Other minimum factors that must be ensured are funding and recognition of the various actors for their contributions.

Discussion

The main findings are summarised as strengths and weaknesses of the model. Table 2 highlights the main comments. The remarks compiled in the table speak for themselves. Better co-ordination, improved linkages, better interplay of actors, means to reach goals, reduced duplication and better use of resources were identified as strengths of the platform model.

³ Rejections went so far as to question if the Ministry could at all play a constructive role: “*Ideally, one would close the Ministry and rely much more on commodity boards and other ‘platforms’.* Perhaps aid to the Ministries merely perpetuates an inefficient and unproductive system?”

Table 2: Strengths and weaknesses of the platform model

Strengths	Weaknesses
“helps achieve goals”	“time consuming, too many actors”
“brings the parties together”	“needs much facilitation also from top management”
“enhances team work”	“involves a weakening of hierarchical authority (this is a good thing in my view but will be resisted)”
“people learn where they stand”	“in some ways incompatible with current management systems: undermines the authority of the PS”
“improves linkages”	“egoism might be problematic”
“allows more flexible work practices”	“needs initiative, innovation, leadership and experienced-trained people. None of this is abundant.”
“appears to reward competence and output, not length of service/seniority”	“flexibility creates a co-ordination problem that might be viewed as ‘untidy’ ”
“could legitimise / regularise interactions with the private sector”	“it’s difficult to see how it can usefully be formalised”
“it might improve status, morale and performance”	“less independence of actors”
“better pooling of resources”	“consensus difficult, needs good leadership”
“better work commitment, better co-ordination”	“as a generalised, conceptual structure it has limited appeal”
“reduces duplication”	
“works if there is a strong economical interest and an already expanding market”	

Furthermore, it was assumed that platforms might have a positive influence on status, morale and performance by rewarding competence and output rather than length of service. Some of the strengths were also seen as potential weaknesses. Co-ordination and reaching of consensus might be difficult to achieve or time consuming. Too much flexibility was seen as a danger for co-ordination. A risk was seen in the fact that platforms might weaken the hierarchical authority and therefore might be resisted. Other weaknesses were seen in the need for strong leadership and experienced-trained staff that are not available in abundance.

The overall judgement of the researchers (7/8) and extensionists (16/21) expressed a strong support for the concept. Somewhat more sceptical were the experts with 4 votes favouring the model, while one remained undecided and one firmly rejected the model. Two quotations may best illustrate this support with proviso: *“It’s an approach I would support, indeed we have adopted elements of this with a degree of success. As stated several networks already exist using a variety of participatory approaches - one should build on these and enhance positive experiences”*, *“to be cynical, Fiji has many of the elements of the classical framework for failure. Yet compared to many Pacific Island Countries, Fiji has many if not all the ingredients for success, and should perform better. Therefore, playing with the institutional arrangement may be the key.”*

Overall, the comments of the interviewed researchers, extensionists and experts supported the platform model as a potential means to address current inefficiencies at the Ministry and make the development process of agricultural innovations more effective. The support and the reservations raised, indicated that the model has a good potential to prove valid in practice.

Conclusion

The empirical base is still too small to allow for a definite judgement of the model. It would be necessary to test the platform model in practice. The experiences gained so far and the potential strengths and weaknesses identified could be used to further guide the process of introducing platforms to the Fiji AKS. A scenario for such an introduction process of platforms could include the following points

In order to allow good judgement of the approach, the model should be tested in a number of case studies. Two to four case studies should be sufficient for this purpose. Such a number of case studies would permit comparison of different start-up settings and actor configurations. It would appear useful to compare a start-up with the help of workshops and external assistance with a start-up without specific assistance. The latter case could include projects that are already implemented under full responsibility of the Ministry. This would provide insights into the suitability and necessity of start-up facilitation, and indicate how much training for platforms would be necessary. The case studies could also provide further insights into the question of platform leadership. In this respect, the performance of different actors in leading roles could be compared.

In parallel to the set-up of platforms, the Ministry could start to develop a new reward system to promote and recognise the initiatives taken in platforms. Using a soft systems perspective, all actors would need to develop a more sympathetic understanding for each other. This would require that actors learn to actively learn from other actors' point of view (e.g. researchers understand farmers' approaches, extensionists understand economical and sociological implications, etc.). This would lead to more effective communication and consequently provide the best chances for platform success.

Experiences from Fiji could also be used in other developing countries. Experimenting with platforms could prove as an interesting means to promote innovation development.

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