## RAAKS'

Materials in the

## **WINDOWS**

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For large scale reproduction or commercial use, written permission from KIT Press, Royal Tropical Institute, is required. Each of the following cards contains one RAAKS 'window', or perspective, to use in better understanding the effect of social organization on networks and the use and spread of innovation. At the top of each card, you will find the reference number and name of the window, followed by a summary of what it covers and a list of tool(s) that will help in collecting the needed information. Each window is labelled A, B or C, indicating the phase to which it is most relevant. Windows are numbered for convenience, although in Phase B a team is encouraged to chose among the windows, or use them in another order, to fit your situation. The reference numbers also connect the window to one or more tools. Figure 2 in Chapter 2 of *Networking for innovation* provides a way to visualize the use of windows in relation to the study as a whole.

Beside the box describing each window you will find a brief description of the design, validity, use and applicability of that particular window. Scientific 'validity' generally refers to whether something does what we expect it to do: a valid window is one that helps teams focus on practices and patterns of social organization that are relevant to innovation. These windows have been used in a variety of circumstances (see The social organization of innovation); these field experiences have shown all of the windows to be valid in this sense. On the cards, the section describing the validity of a window suggests the aspects it covers. By 'applicability' we mean the suitability of a window for participatory inquiry: an applicable window is one that helps participants construct images of the system to stimulate their interactive learning. This section of the card suggests how the particular window does this.

Overall, it is important to remember that windows do not provide 'recipes' – instead, they suggest general ideas for ways of looking at the analysis. Please see Chapter 2 in *Networking for innovation* for more information! It is also useful, in learning about the windows, to read them in combination with their related tools (see the following cards), as well as the glossary (Appendix 4).



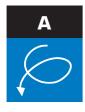
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C



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# Defining or re-defining the objective of the diagnosis



The team that is to carry out the diagnosis usually receives terms of reference from others. However, these may reflect the views of only some of the relevant actors. These actors may be quite important, but a thorough, critical assessment is needed to determine whether others need to be included, and whether the problem definition and objectives are workable for all of the relevant actors. To achieve a definition of the problem and objectives that will be truly useful, the team must take into account the many types of actors relevant to the innovation processes to be studied.

#### **TOOL**

#### **Problem definition exercise**

#### Design

This window is intended to raise questions such as 'who stated the problem as it is now? Who thinks it is important? Who does not? Why? Who holds a key to solving the problems mentioned?' It requires great skill on the part of the team. Generally the initiators of a study find it difficult to see that a new formulation of the problem might be more useful. Nevertheless, the team needs to carefully probe the views of different stakeholders. The aim should be to generate a 'rich picture'—one that describes relevant diversity. It is not necessary to seek consensus in this early stage.

#### Validity

This window obliges the RAAKS team to make their own objectives clear. Uneasiness on the part of some or all stakeholders usually reflects a partial understanding of the situation. The window calls for the RAAKS team to probe views and arguments and to confront actors with each others' views vis-à-vis innovation.

#### Use and applicability

When other actors believe that those who have declared the problem have only a partial understanding of the situation, they may not want to cooperate, fearing their views may be misrepresented and/or their efforts frustrated. Dominant views that have this effect might include 'farmers always resist change – if only they would do what we say!' or 'extension workers should not bother us with their comments; they should just implement the recommendations we provide'. Such views may lead to terms of reference that read 'to design ways to improve farmers' response to extension programmes' or 'to improve the effectiveness of extension workers'. Such partisan views 'pass the buck' to some actors and ignore the relevance of others to the problem. This makes it difficult – but even more essential – for the RAAKS team to work towards a balanced inquiry.

## **Identifying relevant actors**



The actors relevant to the innovation process must be identified; this window follows up on the process begun in Window A1. Here too, there will probably be different points of view on the relevance of each proposed actor to the problem at hand. Remember, at this stage *inclusive* thinking is required – being open to a variety of possibilities, rather than focusing too narrowly.

TOOL

#### **Actor identification exercise**

#### Design

The inclusion or exclusion of a particular actor is a matter for careful consideration. On the one hand, it is important to generate a broad list. The decision to exclude certain actors (perhaps groups labelled traditional farmers, accountants, or traders) may reinforce traditional views with respect to the social organization of innovation. On the other hand, actors may be included simply because someone suggests that they might be relevant. Not only does this make the list of actors long and difficult to work with, but also if these actors are later excluded from the study, those who suggested them may have less interest in participation.

#### Validity

This window takes on the 'boundary issue' – how broad the study will be. It calls for a tentative definition of who the 'relevant actors' are. This forces the team to formulate *criteria* for assessing the relevance of the contributions specific actors make or are expected to make to innovation. Here we must deal not only with the current situations some actors have in mind, but also with the desired situations. It is important to see that the picture drawn while using this window is never 'finished'. At any point during the study, an actor may acquire new relevance in the eyes of the team and/or participants, so that they need to be included; or some may be excluded as more is learned about the system.

#### Use and applicability

With the help of Tool A2 (the Actor identification exercise), it is very easy to generate a long list of actors that seem to be related to the issues in one way or another. It is important to list each of the actors by *name*, not just as a category. This list may contain not only names of persons but also organizations, units, journals, committees, etc. Eventually, the team might choose to work at the level of either persons or organizations, not both. In any case, the team must work with relevant organizations in the difficult task of choosing representative individuals to participate in the RAAKS study.

## **Tracing diversity in mission statements**



Different actors strive for different kinds of development. Each actor related to the process may have their own view of what must be achieved, between which actors and how. We will refer to their statement of this view as their *mission statement*. The team can use this diversity among relevant actors to explore fundamentally different or even conflicting objectives. Differences in objectives can serve to indicate the direction in which a particular actor might look when seeking information relevant to innovation in his/her practices.

TOOL

#### Actor objective sheet

#### Design

This window presupposes that different sets of actors generally have different ideas about which developments are desirable. Consensus is the exception. Therefore, to better understand the system and ways it could change, the search is for *convergences* and *divergences* of opinion between relevant actors. Mission statements provide a way to summarize the objectives, strategy and beneficiaries (or intended beneficiaries) of a particular actor. Similarities may suggest convergence, while fundamental differences may indicate divergence. A discussion among actors about their mission statements may be very revealing!

#### Validity

Probing the strength of the convictions and/or arguments that lie behind mission statements helps to gain insight into the possibilities for negotiations among actors with respect to differences in their views. Any inquiry into the social organization of innovation requires spelling out the preoccupations or ambitions that characterize relevant actors. One way to do this is to ask for a definition of the actual versus the desired situation in the eyes of some or all of the actors involved. Another possibility is to trace the motives different actors state as a reason for taking part in innovation-related activities.

#### Use and applicability

Tracing the motives and intentions of actors can be fun. It gives participants an opportunity to probe their own views and those of others with respect to innovation. However, it may also be threatening. Beautiful but vague objectives such as 'to increase smallholder family income through the introduction of improved farm technology' must be questioned, and actors must be gently forced to specify their intentions, favoured technologies and target groups – *and* to discuss them with others!

## **Environmental diagnosis**



This window examines which actors and other factors influence the performance of the system – these make up the 'environment' in which it functions. Which external influences and/or conditions may affect the performance of the actors involved with respect to innovations? Examples might include natural resource availability and agroecological constraints, but socioeconomic and cultural factors are also apt to be important.

#### **TOOL**

#### **Environmental limits checklist**

#### Design

Some factors are more frequently seen as affecting the dissemination of innovation than others. Articles in the literature refer to both natural and man-made conditions: agroecological and socioeconomic diversity, available technologies, external market and/or policy pressures, the availability and need for external resources, and the adequacy of agricultural services, marketing, inputs and communications infrastructure. In studying the impact of the socioeconomic and natural environment upon the innovative efforts of actors, these factors (at a minimum) should be carefully considered.

#### Validity

To improve networking for innovation, limiting and enabling conditions must be assessed. This window brings out the wider context relevant to the performance of the system.

#### Use and applicability

This window helps to assure that the team will take relevant environmental conditions into account. This includes agroecological, climatological and other natural conditions. In practice, however, many 'environmental limits' related to resources and services are man-made; they are created by actors. When a team begins to identify external factors, it may become clear that some who for one reason or another were earlier considered to be 'outsiders' are actually quite important to the system. This brings us back to the boundary question raised in Window A2: should these actors be included in the RAAKS study? One frequent example: 'the market' might well be called an environmental factor; market prices normally fall outside the control of local actors. But when particular traders or agro-industries play a role in these prices, and thus in the 'theatre' defined for the RAAKS study, it may be better if they participate actively in the networking related to innovation. On the other hand, some things may remain as 'external.' The team and participants can use this window to think further about actors, distinguishing those whose involvement is direct enough to be affected by local networking strategies from those who are considered too distant (physically or in terms of power) to be influenced. During this process, relevant resources and services become clearer.

## Clarifying the problem situation



Here the team works to achieve a first approximation of the knowledge system and its performance. Further, the diagnostic objective is reconsidered. Is the problem situation identified in the process of diagnosing the objective in line with the results of this window? If not, why not? How can the objective be redefined? This helps to close the first 'loop' of the diagnosis, and is part of considering whether any revisions in procedures are needed before going on to Phase B.

**TOOLS** 

Prime mover septagram
Approximation exercise I
Approximation exercise II

#### Design

This window asks the team to draw up a synthesis of the objectives and findings established during Phase A, creating a tentative image of the social organization of innovation. As part of this process, the area of interest, the relevant actors, their main concerns, their objectives and target groups are specified. Moreover, the team discusses the influence of different leading actors, as perceived by other actors. As a result, a first attempt can be made to trace relevant *coalitions* related to resources – actors who pool their resources to achieve their aims. This requires the team to state their own terms of reference more specifically and to declare what it sees as a workable and widely acceptable definition of the problem situation. In general, this is the point to reflect on Phase A, before moving on.

#### Validity

This window stimulates the team to formulate tentative ideas with respect to what is most relevant to the system, including practices, networking and newly emerging forms of social organization. It does so in a general way, not in detail. The end result tentatively describes or pictures the team's perception of the way relevant actors organize themselves to achieve innovation. This picture is to be presented and discussed – including a discussion of its validity – during the first workshop with the stakeholders.

#### Use and applicability

The interactions between relevant actors, as well as with their respective constituencies, can be made visible by constructing pictures of 'soft systems.' You can either draw very general pictures or use cards or papers in different shapes to represent different actors, drawing one or more circles around groups of actors who appear to converge on the same or a very similar objectives – that is, who seem to form coalitions (see Tool A5/B8, Approximation exercise I). Discussion can be stimulated by seeking (whether this is achieved or not) to define precise characterizations of actors and their influence on the innovation process. Tool A5, Approximation exercise II, helps to sum up and to prepare for Phase B.

**R**1

## Impact analysis

Does the system or subsystem succeed in achieving the several desired objectives of its actors – that is, what impact does it have? What desired or undesired side effects does this have? Answering these questions requires reflection on the degree to which the actors involved recognize a joint objective or purpose, and whether they feel this is achieved by the current social organization. Rather than attempting to reach full consensus and define a joint mission, the objective of this window is to understand the ways different actors make sense out of their own individual performance, and what they expect from a joint effort. The outcomes desired by one may of course be the undesired consequences another hopes to avoid.

**TOOLS** 

Impact analysis sheet
Source-intermediary-use exercise

#### Design

This window assumes that actors who define objectives differently will also judge impact differently. Also, they often recognize the need to improve communication and/or cooperation with relevant others, but fail to specify their expectations clearly enough. Too, they may not know exactly what others expect of them. Impact analysis helps to make these expectations – which influence the criteria used by actors in judging impact – more explicit, so that they can become the subject of discussion and debate among relevant actors.

#### Validity

This window permits the team to probe somewhat deeper into the *practical consequences* of the views stated by various actors. A central question is what criteria are used by actors to judge their joint operations. The purpose of the window is to identify the criteria used by actors in defining what level of impact, effectiveness and efficiency is sufficient, rather than to measure it in an 'objective' manner.

#### Use and applicability

When there is agreement on a joint purpose, it may be a relatively straightforward operation to assess the knowledge, skills and technologies relevant to achieving the objectives of different sets of actors, and the extent to which these are available to everyone concerned. If there is no convergence, probing for information must go much deeper. For example, in southern Chile small producers were hesitant to cooperate with milk processing plants: they expected the companies would take advantage of them. The plants, on the other hand, complained that small producers were unreliable and always threatened to sell to their competitor. Still, they recognized the need to cooperate to strengthen milk production in the region. In such a case, getting realistic answers about possible convergences may require clarifying biases on both sides.

**B2** 

## **Actor analysis**



Who are the most important actors and what are their characteristics? This window assumes that some actors are more relevant to successful innovation than others; it works towards learning who they are, why they are more relevant, and what types of innovation they favour.

TOOL

#### Actor analysis checklist

#### Design

This window continues the work begun with the help of Window A2. It brings into focus the views and role, characteristics, and contributions to agricultural innovation of each individual actor.

#### Validity

Looking at actors individually makes it possible to identify and describe relevant practices, trace convergences and resource coalitions, and assess the actor's strengths and weaknesses with respect to stimulating innovative performance in a particular direction. The effectiveness of leadership (including institutional leadership) within the system can also be assessed.

#### Use and applicability

Actors who are networking for innovation can be looked at and compared on the basis of many different characteristics. The RAAKS team chooses characteristics that describe the role of actors in their situation; these can vary widely from one situation or one team to another. For example, actors could be compared with respect to views and strategies, and their power to influence events in the 'theatre' under consideration. Or official mandates could be compared to actual practice. Clearly, the use of actor analysis goes hand in hand with the use of other windows. For example, the results of this window are often combined with those of Integration analysis (B4), to provide an analysis of relationship patterns in the context of the importance of particular actors to the system. Combination with the results of Coordination analysis (B6) has proved powerful. Looking at interactions among the results of B2, B3 and B5 has also been fruitful.

Carrying out such an actor analysis requires careful thinking. Actors such as farmers or villagers, who are sometimes seen as 'beneficiaries' or 'target groups', may be essential to the functioning of the system. If this is the case, representatives of the group need to be included in the study and perhaps on the team. If they are clearly peripheral to the system under study, but will be expected to be influenced by its results, an analysis of these categories, their views and practices can be very relevant. Also, if farmers for example are not organized to act collectively, consideration should be given to ways to meet their participation needs and be sure that they are adequately covered in interviews and feedback sessions. Some teams have opted for drawing a random sample, but most have selected key informants, hoping to guarantee farmer participation in the inquiry.

R3

## Knowledge network analysis



This window goes beyond the question of the needs of individual actors, to that of the larger whole. What types of knowledge are important for the successful performance of the system? Who are the sources and users of these types of knowledge and information? Who or what are the intermediaries – the actors, printed materials or other media that move knowledge and information among actors? How effective are the existing communication networks in linking relevant sources, intermediaries and users of knowledge and information?

**TOOLS** 

Info-source-use exercise Communication network sheet Source-intermediary-user sheet

#### Design

This window assumes that actors deliberately exchange information on relevant topics or concerning particular types of knowledge: they talk to those they consider knowledgeable, read papers they consider well informed, listen to interesting radio programmes, and so forth. During this process, relatively stable patterns of interactive relationships evolve in which information is produced, exchanged and used. One characteristic of these networks is that every participant is at the same time a source as well as a user of information. Some may be more knowledgeable on one issue, and others on another. In the exchange with others, each actor adds value to the network by transforming his or her ideas, experiences and information into intelligible information.

#### Validity

This window helps the team study networking practices and the generation, exchange and practical use of knowledge, and to appraise communicative interactions relevant to agricultural innovation.

#### Use and applicability

The main difficulty in the application of this window is to avoid traditional conceptions of knowledge – taking it as a static and/or technical entity – and to begin to recognize the extent to which knowledge is 'socially constructed': a product of our interactions with each other, which changes over time and with new interactions.

Team discussions might cover the relevance of different types of sources to particular sets of actors, the lack of access to relevant knowledge and information of particular actors or constituencies, or the speed of exchange of knowledge and transfer of information. In each case, the relevance of each of these issues to the innovative performance of the whole should be considered.

В4

## Integration analysis



This window is about linkages. Who has contact with whom, why, and how intensively? Can clusters of actors be distinguished – for example, around key actors? What characterizes these clusters?

**TOOLS** 

Linkage matrix
Linkage mechanism checklist

#### Design

The starting point of this window differs from earlier ones: the focus is on whether actors are connected to each other. If they are, do their linkages imply communication alone, or also control? First, the types of links to be included in the analysis are defined. Normally these include resource linkages plus administrative and communication linkages. Sometimes more detailed information is recorded here, such as the characteristics of the linkage or the frequency of contacts. The results of integration analysis can be presented as a drawing or as a 'linkage matrix' (see Tool B4/a, Linkage matrix): a table of any size, with the same components listed on each axis. The information given in each of the cells of the matrix relates to a particular linkage (see Tool B4/a for an example). As in Actor analysis (Window B2), team discussions are needed: what is the most relevant information to collect to characterize and describe the linkages in your situation? Later, the team can consider the relevance of particular links and their impact on innovative performance, as well as the relevance of the resources a cluster of actors can pool together. To what extent can pooling resources change the course of agricultural innovation?

#### Validity

Determining the linkages between actors makes it possible to recognize resource coalitions and communication networks. If necessary, a detailed analysis can be made of one or more specific linkage mechanisms, to determine the role a mechanism plays in enhancing coordination of tasks among actors (Tool B4/b, the Linkage mechanism checklist). In the process, indications of innovation configurations may also appear. (These combinations of convergences, resource coalitions and communications networks are discussed in Chapter 1 of the manual *Networking for innovation*.)

#### Use and applicability

This window is one of the instruments most frequently used in exploring the social organization of innovation. It permits the elaboration of a relatively comprehensive picture of relevant coalitions and networks in a brief period of time. However, it tends to overemphasize more structural, formal contacts at the expense of informal ones. Initially, researchers often assumed that each linkage was equally relevant to innovation. However, as van Beek (1991) demonstrates, managers for example attach different priorities to different links. His suggestion is to include *perceived importance* as a characteristic of linkages when carrying out an analysis.

**B** 5

## Task analysis



Who does what in the system? Are there functional connections between system actors? Do these function adequately? These are the questions dealt with by this window. Practices relevant to innovation, such as farming, research, trade or quality control are identified, along with the actors in charge. Gaps or overlapping in the performance of tasks become more evident.

#### TOOL

Task analysis sheet

#### Design

This window focuses on the role and functions of the actors in the system, including the way tasks are divided among them. As a first step, the team and participants define which functions need to be performed to achieve innovation in agricultural practices. Traditionally, such questions were referred to research and extension and perhaps to trainers working in farming and education. However, experience and field studies have demonstrated the relevance of other actors – policymakers, veterinary services, input suppliers, agro-industries, banks, certification committees, traders and others. Therefore, the relevant practices in a particular situation must be sought out, using intensive probing and debate. Following this, a team can ask which actors are involved in each of the practices listed.

#### Validity

A task analysis helps shed light on relevant practices of actors, on overlapping or missing functions, and (in combination with the results of Tool B4/a, the Linkage matrix) on the adequacy of any social structures such as convergences, resource coalitions and communication networks that are present as well (see Chapter 1 and Windows B4, B6 and B7).

#### Use and applicability

The importance of a thorough discussion prior to a declaration of 'relevant practices' is illustrated by a RAAKS seminar in Costa Rica. Five groups elaborated a relatively predictable list of relevant practices including policymaking; fundamental, applied and adaptive research; transformation; dissemination; and use. However, the Nicaraguan group, very conscious of the role of the free market in their economy, added *quality control* as a function. They argued that the actors who control quality standards for agricultural inputs and/or produce are extremely relevant in deciding the course of agricultural innovation. This confirmed earlier observations by for example Swanson (1986) with respect to the role of certification procedures. It also shows the importance of input related to the specific local situation.

В6

## **Coordination analysis**



Who takes the most important decisions? Who 'pulls the strings' and sets the agenda? How is influence exerted? Who involves others in their 'projects'? Who has the means to implement important decisions? This window helps to identify leadership and coordination efforts made by actors and directed at innovation. It also looks at the 'basic configurations,' or patterns that may be seen within the system.

TOOLS

Basic configurations
Prime mover septagram

#### Design

This window assumes an organizational perspective, with a focus on leadership and coordination for agricultural innovation. It helps identify leading actors and the means by which they create and strengthen coordination among relevant actors in the 'theatre'. This leads first of all to a characterization of the way tasks are coordinated among relevant actors (if at all). Second, by combining the findings from this window with those of B1, B3 and others, the team can better understand the issues the various actors consider in assessing the impact of each of the leading actors – their influence on agricultural innovation and its direction.

#### Validity

Using this window helps bring out dominant resource coalitions – coalitions that have control over resources and can thus dominate the situation – and the one or more configurations that may be the result. To achieve a more comprehensive interpretation of configurations and emerging networks, it must be combined with Windows A3, B2, B4 and B7.

#### Use and applicability

There are different types of leadership. Some give political or financial leadership, or both. Leaders set priorities, provide financing and impose administrative or other regulations. Others acquire technical leadership on the basis of knowhow and experience. Still others represent relevant constituencies or markets. Looking at the basic configurations (see Tool B6, Basic configurations) has proved an interesting way to highlight leadership issues and thus to encourage debate. Consequently, this helps to study how different types of leadership impair and/or enhance innovation. Such a debate may however be threatening to certain stakeholders. In addition to analytical skill, this method therefore requires considerable skill in group dynamics and communications.

В7

## **Communication analysis**



Do people speak the same 'language' in a figurative sense? Even when people use the same word, do they mean the same thing? Is effective communication among system actors possible? This window helps to study the effectiveness of communication among actors, and thus to understand whether, if the varied actors involved meet each other, a fruitful dialogue will be possible.

#### **TOOL**

#### **Communication analysis exercise**

#### Design

The point of departure of this window is an assumption that innovation is contingent upon effective communication among relevant actors. This window has been chosen as a way to focus on cultural barriers that may obstruct effective communication between social groups, not to discuss networking practices as such (that has been done in B3).

#### Validity

This window focuses the attention of the research team and participants on constraints on communication implied by culture and use of language. This is extremely important for RAAKS: these same constraints can be expected to have a direct influence on the outcome of the team's work.

#### Use and applicability

The sorts of problems that can arise between indigenous communities and an extension worker who speaks only the official language are well known. But even when extension workers or researchers have the same mother tongue as the community, the cultural differences created by upbringing and education may create formidable communication barriers. For example, peasants in southern Colombia were puzzled at times by the Spanish word *selección*, used by extension workers to refer to the selection of potatoes to use in planting. For them the *selección* was the village soccer team! After some explanation, of course, it became clear that the same process of 'selecting the ones that will do the best' was the basis for both usages, but the object of the selection differed. In this same region, a detailed study by a team of communication specialists, including a local anthropologist, found over 175 words in common 'extension language' that were of low or doubtful comprehensibility, even though farmers were native Spanish speakers and all extension workers were sons or daughters of local farmers. When actors still farther from the community are included, and when the concepts in question are farther from daily experience, it becomes even more important to check the effectiveness of communication.

R<sub>8</sub>

## Understanding the social organization of innovation: summing up



This window recalls the insights the team has gained. These are summarized in the form of a report and presentation to be used in the next workshop with other participants. The central questions to be answered are: what are the major convergences, the resource coalitions and the communication networks within the 'theatre'? What are the main impairments to innovation? What opportunities are there that could be used to improve the way actors interact, and to encourage innovation?

#### **TOOLS**

Window reporting sheet
Understanding the social organization of innovation
Approximation exercise I
Approximation exercise II

#### Design

This window suggests a continuation of the discussions initiated in Tools A5/B8 and A5 (Approximation exercises I and II), and an integration of the team's results into a more detailed and clearer picture of the way actors interact for innovation.

#### Validity

This window stimulates the team to draw conclusions as to the convergences, resource coalitions and communication networks that characterize the social organization of innovation. Are the missions and joint missions of actors clear? Is the leadership of some or all key actors well established? Does this contribute to achieving the agreed mission(s)? What stands in the way of adequate performance with respect to innovation? Can configurations be identified? Are new networks emerging? What opportunities can be identified for improving the performance of the system? How would this work?

#### Use and applicability

The results of this window are as varied as the situations teams encounter. The most difficult aspect may be the need to achieve a synthesis, given the richness of materials collected in a short time. In preparing for a workshop, discussions within the team of alternative propositions, arguments, and ways of presentation must be open-ended and inclusive at the start – yet towards the end they must become selective and decision oriented. This requires skilful management of group dynamics and communication. Successfully representing the eventual results in the form of drawings and a synthesis report requires a careful choice of figures and texts, and if possible some professional editing. The presentation to the workshop participants needs to be complete but concise, so that as much time as possible will be available for discussion.

#### C1

## Knowledge management analysis



What can be done to enhance performance related to innovation? This is the question addressed by the knowledge management window. Performance may be seen from different angles, as it is by different actors – therefore there may be more than one answer. Using this window, the team and actors can design positive changes and/or actions for each of the objectives or mission statements identified earlier.

**TOOLS** 

Knowledge management analysis exercise Defining possible actions

#### Design

As a first step, this window suggests that the team should make a basic decision with respect to the situation: could the problems possibly be overcome by improving current networking practices among actors? Where this is the case – that is, where there appear to be no structural impediments – the team has the option of choosing to design a *network improvement strategy*. If, on the contrary, structural impediments have been uncovered (that is, they cannot be overcome without a fundamental change in current networking patterns), the team may decide to work towards a more demanding *network re-configuration strategy*. Such a strategy is intended to improve networking efficiency and effectiveness. It implies the re-working of present social structures, including configurations, convergences, coalitions, and communication networks. For example, a strategy with the aim of privatizing extension and research would suggest a structural intervention. Such strategies originate from a realization on the part of leading actors that existing configurations are unable to cope with new demands for knowledge within the system, whether from farmers, extension workers, private institutional actors or others.

Improving networking strategies can be seen as a kind of knowledge management. While the usual sort of management is generally impossible with respect to a knowledge system, a team can attempt to improve its 'synergy'. (Synergistic relationships are those in which collaboration increases the effectiveness of both partners – working together, each achieves more than they could alone.) This can improve the interactions and contribute to the operation of the system as a whole.

The mission held by actors sets the stage for their activities. If there is agreement among actors, a single mission may be taken as the point of departure. This provides a standard against which performance related to innovation can be judged. Otherwise, the separate missions of different subsets of actors must be recognized and treated in a parallel manner.

#### Validity

The concept of managing the knowledge within a given system suggests that a KIS can be designed or re-designed to improve its performance. When a team begins to look at the system in this light, the information collected earlier may take on new meaning. This window helps to make the transition from understanding the system to making plans for the future.

### Use and applicability

Few simple recipes can be given to would-be knowledge managers. However, when actors work together to understand their knowledge system, the recommendations generally refer to improved cooperation and/or communication strategies. This makes wide participation and consensus among relevant actors overridingly important to such management – otherwise, no matter how carefully the recommendations are formulated, they may not be implemented.

C2

## **Actor potential analysis**



Who has the mandate to cooperate in making the changes seen as necessary for the successful performance of the system? Do they also have the means to do this? Who is most interested in making these changes? The use of this window acknowledges that no single person or actor directs complex social innovation processes.

TOOL

#### **Actor potential checklist**

#### Design

If the application of Window C1 has produced specific suggestions to improve innovative performance, C2 helps the team to review the support you can expect such innovations to receive from the actors, and to assess the relevance of specific actors to successfully carrying out the changes. On the basis of their analysis the team can propose particular new or revived linkages or coalitions, or measures to stimulate such relationships, among relevant actors, joint projects or activities. This also requires looking at each actor's capacity to influence the way innovation is socially organized.

#### Validity

An analysis of actor potential should pave the way for negotiations among actors. These may lead to building or strengthening linkages and coalitions that can probe and decide on new missions and alternative options (including technical options). In addition, such actors can look at and interpret the environment of the system – the external factors that influence it – in ways that may enhance innovation. The validity of this window lies not in its focus on any one aspect of the social organization of innovation, but in its contribution to the process of exploring possible linkages and coalitions among stakeholders, pooling of resources, and so forth, to improve performance related to innovation.

#### Use and applicability

Active participation of stakeholders is a fundamental condition for the successful use and application of this window. The window can only be used if a number of actors are willing to meet and assess their possibilities for collectively improving the situation. Further, any joint action must fall within both the mission assigned to the team and the mandates of the actors who are represented on it. If this is not the case, or if (even when the RAAKS study has almost been completed) such willingness does not exist (or if no agreement can be reached), the team may make suggestions; but in this case the actors must be left to draw individual conclusions and, if they wish, to act upon these.

**C3** 

## Strategic commitments to an action plan



What practical recommendations can be made to key actors and accepted by them? What will lead them to contribute to the improved performance of the knowledge and information system? When the team has discussed this, recommendations for interventions and strategies for cooperation and/or communication can be drafted; their implementation can then be negotiated among key actors or selected key actors. As a part of the strategy, the actors who took part in the analysis of actor potential may be asked to make a further commitment to participate in these negotiations.

**TOOLS** 

Defining possible actions Strategic commitments

#### Design

As the RAAKS cycle is completed, negotiations among actors are needed to reach at least partial agreement on specific joint interventions and/or actions. Specific project proposals are necessary at this stage, with an assessment of the resources that will be required to carry these out. Generally, taking decisions on such proposals is not within the mandate of the RAAKS team members and participants. However, proposals can be prepared, ready to put through the proper channels. Further, *commitments* can be sought from important actors (not necessarily all relevant actors!) to follow up on the project proposals.

#### Validity

The validity of this window lies in its contribution to achieving verbal commitments on the part of relevant actors to implement or participate in recommended actions. This is vital to the RAAKS study as a whole.

#### Use and applicability

In the design of the RAAKS methodology, *diagnosis* is emphasized rather than project planning and implementation. The need for tangible results is recognized, but accomplishing the concrete activities needed to follow up on recommendations is left to the actors. The applicability of this window could be further enhanced by designing specific proposals that facilitate the detailed design and implementation of the followup.