RuralInvest

A participatory approach to identifying and preparing small scale rural investments

MODULE 3

DETAILED PROJECT FORMULATION AND ANALYSIS

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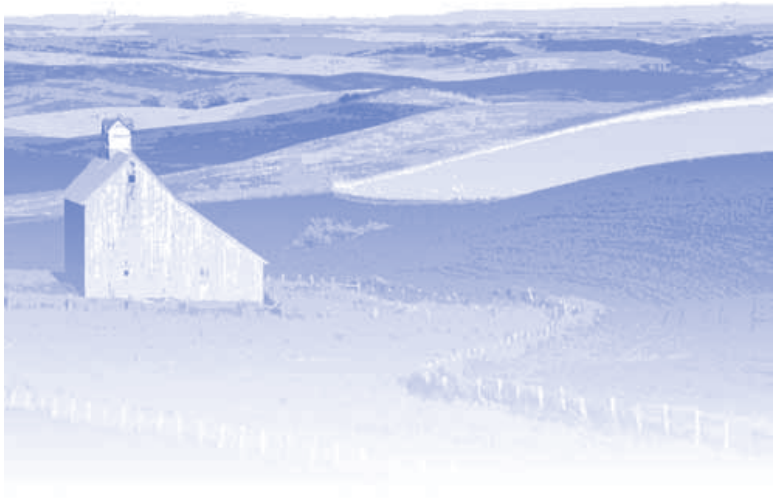

Investment Centre Division
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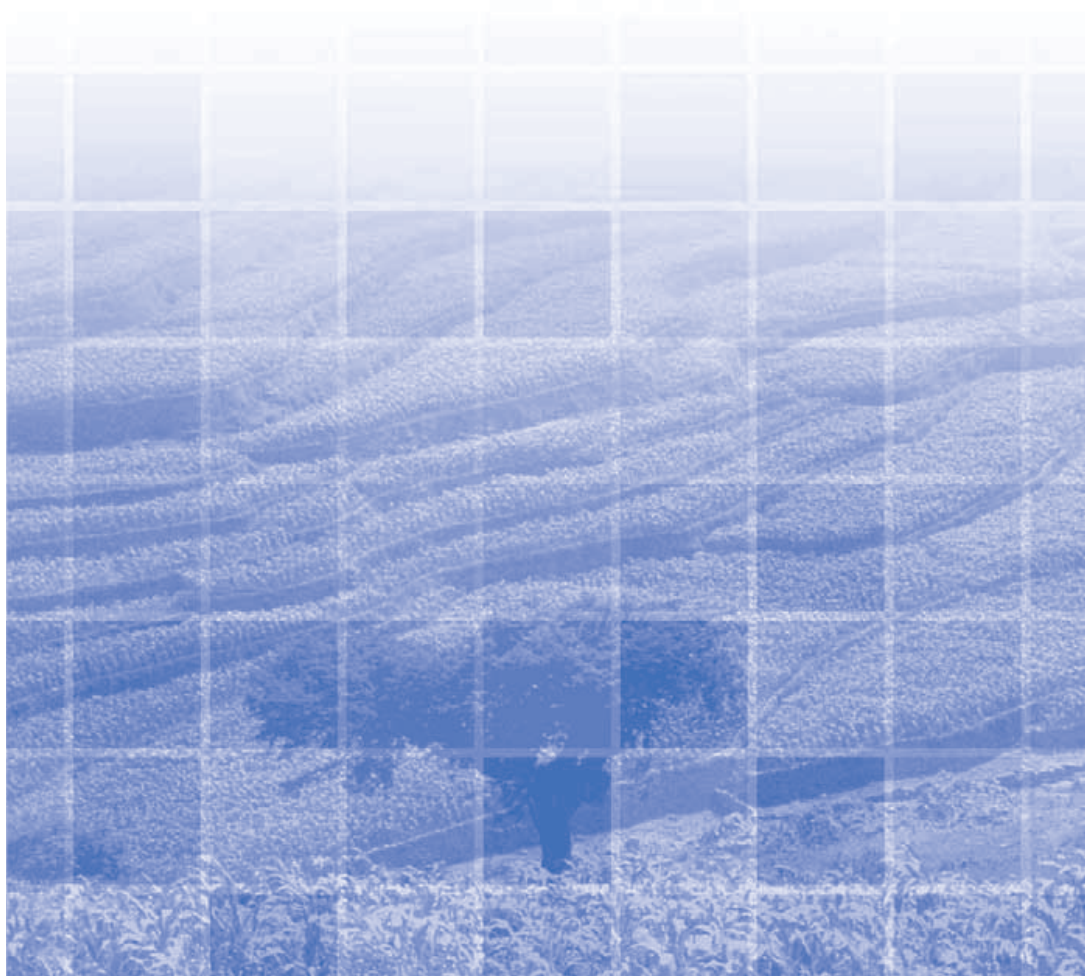
INTRODUCTION TO RURALINVEST



I INTRODUCTION TO RURALINVEST*

The following document forms part of a "toolkit" comprising manuals, training materials and computer software, that together provide a basis for a relatively simple, yet reliable, approach to the identification, formulation, implementation and evaluation of small-scale community or family investment projects in rural areas.

RuralInvest was originally developed by staff of the Investment Centre of the United Nations Food and Agriculture Organization (FAO) in response to requests for a readily usable approach to the identification and preparation of investments much smaller than those traditionally considered in published guidelines [1]

FAO, in cooperation with the multi-agency "Regional Unit for Technical Assistance" (RUTA) in Central America, translated these initial experiences into a general methodology and toolkit, which have now been tested in a number of countries with considerable success. As the number of users has grown, it has been possible to improve and expand the different elements of the RuralInvest toolkit, as well as offer the package in a number of other languages.

A. The Purpose of RuralInvest

In recent decades many governments have begun to encourage local communities to assume a more active role in decisions concerning their own development. Often referred to as Community Driven Development (CDD), this has included such measures as the transfer of financial resources to municipalities, the decentralization of public agencies, and the creation of local investment funds (sometimes known as Demand-Driven Rural Investment Funds or DRIFs). Using these approaches governments and international financial agencies have created new possibilities for people to effectively participate in, and influence, the decisions that contribute to the socio-economic development of their community, municipality or district.

Selection of investments at local level is not without its problems, however. It is not always easy to determine which investments will yield the best results. It may be that a bridge would have greater impact on a community than a new well, or that a dairy processing plant would make a greater contribution than an irrigation system, but how to decide between them? Furthermore, not all investments are sustainable. An investment that initially generates strongly positive results for the community may turn out to be simply too expensive to keep running (e.g. a local hospital), or to result in the destruction of natural resources that cannot readily be replaced (e.g. a sawmill).

Over the course of many years, most developing countries have built up a national capacity to formulate and analyse investment proposals, utilizing a small cadre of internationally trained staff located in those ministries and agencies responsible for economic and social planning. Using international formulation and appraisal procedures, and often supported by specialist consultants from international financing agencies, these highly trained staff have traditionally focused on preparing key multi-million dollar investments. The feasibility study for a new hydroelectric dam, for example, could take years and involve a multi-volume report costing millions of dollars.

However, these staff typically have little experience in the analysis of smaller scale projects, where such in-depth analysis is clearly not justified. Furthermore, even if these experts adapted their procedures to the study of small projects, there would simply be too few experts to support the dozens of decentralized projects, the scores of autonomous municipalities, or the hundreds of community groups that are now seeking to identify and formulate their own projects. What is needed is a different approach; one that that can be used to formulate and approve small-scale projects using only local technicians and resources.

In general, three possible procedures can be used to select and approve projects prepared at local level. These are:

1. Applying standard procedures and exclusions

The first option is for the funding agency to establish standard procedures and exclusions, and accept all projects that meet these criteria. These might include:

- Requiring the signature (or mark) of a majority of the community or group applying

* This document was prepared by Aidan Gulliver, Dino Francescutti and Katia Medeiros of the Investment Centre, FAO, Rome, with contributions from many other FAO and RUTA staff members.

1. "Guidelines for the Design of Agricultural Investment Projects", Technical Paper No. 7, Investment Centre, FAO, Rome, 1992. This is a good example of a methods and procedural manual, designed for the preparation and evaluation of large-scale projects.

- Requiring the approval of the local Mayor or Council
- Excluding certain kinds of investments (for example, no projects that might damage the environment or religious structures will be allowed);
- Excluding projects with investment costs which exceed a per capita limit (that is the cost per beneficiary).

This option offers the communities or applicant groups a high degree of autonomy in choosing their investments, but the absence of any evaluation mechanism creates a high risk of financing projects that are either infeasible or unsustainable.

2. Predefined investment models for each expected type of project

In this second option, a detailed study is carried out for a number of "model investments", each representative of the type of proposal that are expected to be received from participating groups, communities or municipalities. All proposals must then use these models as the basis for their submissions. This method has the advantage of ensuring generally well designed projects (because experts can be called in to design each model), especially for infrastructure projects that can be replicated from one place to another (e.g. a health clinic).

However, predefined projects do not easily allow for changes to the basic designs and thus risk funding investments unsuited to local conditions (e.g. an irrigation system). They also tend to limit the degree of local involvement and ownership, as designs are pulled "off-the-shelf", with little role for the local community. The need to follow standard designs and ensure identical construction also tends to favour the use of professional contractors rather than local labour, limiting local involvement even further. Finally, the use of model investments generally excludes the possibility of innovative projects for which no models exist. They are thus inappropriate when financing a wide variety of rural investments.

3. Local-level project identification, design and analysis

The design and evaluation of projects at local level offers significant advantages, including: (a) the design of projects that arise from, and respond to, local needs, priorities and circumstances; (b) the development of a local capacity not only to formulate and evaluate investment projects, but also to manage their own development process in a wider sense; and (c) the creation of a real commitment to, and ownership of, the proposals on the part of the applicants, as a result of their participation in the formulation process.

However, this approach undoubtedly requires a greater level of effort and cost than the others, both in the initial training of local technicians and in their subsequent work with applicants. In most cases local technicians will also need to be supported by subject-matter specialists (e.g. irrigation engineers, architects etc.) and be adequately supervised, to ensure the quality and correctness of the designs developed. A number of attempts to use this approach in the past have proven to be unsuccessful, largely due to the inability of local staff to effectively master the complex investment formulation tools developed for use in multi-million dollar projects.

To avoid these problems, the project design and evaluation process must be brought within the reach of local technicians and the communities they serve. RuralInvest provides the tools to achieve this objective, using a number of separate but interlinked modules which simplify the tasks of priority setting, project identification, detailed project design and analysis, and finally monitoring and evalaution of the implementation process.

B. The Special Nature of Rural Investments

The key factors to be considered in the identification, formulation and selection of an investment are the same whether it occurs in the rural or urban sector. In fact, it is possible to apply RuralInvest to any type of small or medium investment, rural or urban. However, RuralInvest considers a number of special features that are important only for projects in the rural sector:

a) **The seasonal nature of many rural activities.** Unlike urban investments, many rural projects must take into account the availability of resources (land, labour, capital) in different months of the year and relate them to differing production patterns (e.g. crop and livestock activities). In addition, fixed costs may exist which are spread throughout the year, including during periods when no productive activity is underway.

b) **The heavy dependence on the use of natural resources.** When evaluating possible rural investments, environmental and natural resource sustainability are often critical factors for long-term success.

c) **The dispersion of human and economic activities.** Rural populations tend to be

spread out, limiting access to infrastructure (roads, electricity) and services (schools, health clinics). Equally, input supplies, markets and other productive elements are also dispersed. This means that greater attention needs to be paid to such aspects as availability of inputs and the cost of delivering the finished product to the buyer.

C. Type and Scale of Projects Appropriate for RuralInvest

RuralInvest distinguishes between two broad types of investment projects: those designed to generate income, that is, for profit, and projects whose principal purpose is not profit related.

The category of **income-generating projects** covers a wide range of possible activities: agricultural production, aquaculture, rural shops, irrigation, agroindustry, handicrafts, tourism, transport, the fabrication of simple machinery and spare parts, and marketing services. A project may, in fact, require investment in more than one of these areas, and will frequently involve more than one type of productive activity from the same investment (e.g. production of different crops as a result of investment in irrigation)

The category of **non-income generating projects** also includes a broad range of activities and can be divided into three distinct sub-groups:

- *Production support*: Including access roads and bridges, electrification and communications, as well as primary irrigation infrastructure;
- *Social projects*: Health and education services, provision of drinking water and sewage disposal, and support for community organization;
- *Environmental projects*: Watershed and slope protection, reforestation and soil conservation.

It is important to note that **projects in the non-income generating category may often include a user fee or charge designed to recover some portion of the operating costs**. However, unlike the "for-profit" projects, this income never provides the justification for the project, but merely contributes to its sustainability.

Although the participatory methodology stressed throughout the RuralInvest approach renders it particularly appropriate for use with groups and communities, there is no reason at all why it can not be used by individuals or families. However, such personal applications generally omit the detailed needs identification and priority setting that is central to the first Ruralinvest module, and commence directly with the project profile.

The project profile is the starting point for both income generating and non-income generating projects. Micro-investments (very simple projects with an investment below US$5,000) often may not require further preparation beyond this stage, as financing can be decided on the basis of the 4-page profile.

Conversely, above a level in the region of US$250,000 – depending upon the complexity of the project as much as upon the value of the investment – it may be wiser to supplement, or even replace, the use of RuralInvest with a specialized project formulation team. This is important because RuralInvest is designed largely to be used by general technical staff, while above a certain investment cost it becomes worthwhile to contract specialists in a number of fields.

RuralInvest, therefore, is best used for small and medium scale projects that run from perhaps US$5,000 to somewhere not greatly exceeding US$250,000, always depending greatly on the complexity of the project design.

D. The RuralInvest Modules

As mentioned above, RuralInvest covers a series of phases or modules. The following is a description of the principal elements of each of them.

Module 1 – Participatory Identification of Local Investment Priorities

The first module of RuralInvest is primarily community focused, particularly through its support for the creation of a local development plan from which the specific investment projects will derive. Communities and groups which already have undertaken this type of process, or individual applicants who are generally much clearer on their priorities, may wish to pass directly to Phase Ib where the project profiles are developed.

RuralInvest provides detailed guidelines in this phase to help in the following tasks:

a) Define the current situation of the group or community, taking into account a range of aspects, including physical (the location of the community, availability of land and water, types of soils, slopes, etc.) environmental (forests, fishery, rainfall distribution), and socio-economic and cultural (availability of markets, current earnings of members of the community, migration, group solidarity, etc.);

b) Use this definition of the current situation to reach agreement on key problems and potentials faced by the community or group;

c) Develop a local development plan that defines priorities for action according to the needs of the applicants;

d) Identify one or more possible broad investments that would contribute to carrying out and achieving this plan.

For communities, this first phase almost always requires the support of a community worker or rural technician, trained in the use of RuralInvest and with experience in participatory planning. The technician will support and guide the applicants in using the tools and guidelines provided by RuralInvest. Ideally, she or he will already know the community, through residence or previous work in the area, but in many cases technicians will be assigned to work with the applicants by the supporting agency as the result of a specific request from the community.

Where there has been no prior contact between the technician and the applicants, and a local development plan or its equivalent has never been prepared, the diagnosis and identification phase may require the technician to make a series of visits over a period of as long as three to four months, depending on the degree of organization of the group, the complexity of the constraints and opportunities faced, and the accessibility of the community.

Where the community has previous experience in identifying local requirements and priorities, the process will be much more rapid, and the phase can often be completed after no more than a few visits.

In this first phase there is generally no need for specialized technical staff to participate, as the priorities and resulting development plan should largely be the work of the applicants themselves.

Module 2 – Creating and Using Project Profiles

The core of Module 2 is the preparation of a project profile for each priority investment proposal. These profiles provide enough information about the investment to allow both the applicant(s) and the eventual financing source to see which ideas have potential, and are thus worth the further effort and resources required to develop them in detail.

Most individual applicants will seek to by-pass the earlier community diagnosis and planning activities, which are often of little relevance for those who already have a clear idea of what investment they seek to make. Even whole communities which have previously undertaken some form of community development planning may wish to pass directly to profile preparation, as long as there is already a broad community agreement on development needs and priorities.

Few, if any applicants, however, should be permitted to jump directly to Module 3 of RuralInvest, as the resources required for detailed project development can not easily be justified unless a profile has already been approved. In addition, the profiles also provide considerable information that can be incorporated directly into the Module 3 models, so little work is lost in first preparing them.

Unlike Module 1, the local field technician may need to be supported during profile preparation by a subject-matter specialist. Where the proposed project involves an area for which little local knowledge exists (e.g. solar electricity generation for lighting), a specialist will be required who can provide key parameters concerning cost and performance, so as to avoid extensive work on a proposal that is clearly technically infeasible from the start.

Module 3 – Detailed Formulation and Evaluation

The second phase of RuralInvest consists of preparing a more detailed project proposal, using the Module 2 profile as the starting point. Participants in this phase may include not only the applicants and the local technician (community promoter, extensionist, etc.), but also a regional technician, trained in the use of the computerized RuralInvest models for project formulation and analysis. It is possible that the local technician assumes this function. Generally speaking however, the two roles are sufficiently different that a separation of responsibilities is required.

In the detailed project preparation stage additional external technical input may also be required, depending on the investment value and its complexity. External input may be needed from specialists in such areas as: environmental impact analysis; irrigation engineering; food processing, etc. Generally, however, their input is short, requiring no more than a few days to a week, in line with the value of the investment proposed.

The depth and level of detail required in the process of formulation and evaluation will depend on the complexity and the scope of the project. The regional technician will provide support to the applicants and to the local technician in some or all of the following tasks:

- Determination of demand and benefits;
- Evaluation of the proposal's technical feasibility and scale;

- Assessment of the project's operational sustainability, both in financial and in environmental terms;
- Determination of the detailed costs of the investment and its subsequent operation;
- Selection and specification of an appropriate management and administrative structure;
- Estimation of sources and costs of financing;

The process of formulation and evaluation requires the use of a computer and is not generally carried out in the field. For this reason it is essential that contact be maintained between the responsible technician and the applicant(s) to insure that the proposal truly reflects their needs. Furthermore, it may be that the detailed formulation reveals aspects of the investment that require the applicants to reconsider their plans (for example, competition for labour at key periods of the year, or high maintenance costs).

Depending on the degree of complexity of the project, it is estimated that the detailed evaluation will require between two and four weeks per profile and will call for several visits to the field by the technician working with the computer software.

Module 4 – Monitoring and Evaluation of Projects

Many institutions or internationally-financed projects adopting Ruralinvest support the preparation and financing of scores, or even hundreds, of rural investments. Furthermore, the process of identifying and preparing these investments is often undertaken in a number of local offices spread throughout the area covered. In these circumstances, adequately monitoring and evaluating the proposals received can be a difficult task.

As a result, a fourth module has been developed to provide organizations using RuralInvest with assistance in monitoring and evaluating all investment projects prepared using the system. To meet the monitoring requirements, a search engine capability has been built into the RuralInvest software. The search engine can rapidly identify and provide key data on all projects entered into the computer. In addition, all projects are now 'tagged' in order to track their progress through the project cycle and permit a comparison of initial proposals with later results for evaluation purposes. Each of these functions is described briefly below:

Monitoring Data on Project Characteristics

Using a number of key indicators defined in every detailed project proposal (for example type of investment, location, total investment, employment generation, type of beneficiary) it is possible to use the built-in search engine function in the software to identify all projects stored in that computer which meet selected criteria. These criteria can define the location or status of the project, its type, beneficiary or environmental category or the technician who prepared it. Key financial indicators can also be selected for, such as internal rate of return, net present value, total investment cost or the use of donated resources. For example, by selecting the indicators 'northern field office', 'beneficiary group women' and 'small livestock', a table would be generated that showed all projects meeting these criteria and their key characteristics.

Monitoring Data on Project Performance

Proposals and subsequent projects prepared using RuralInvest can also be labelled according to one of the following stages in the project cycle:

- Proposal
- Approved for financing
- Investment
- Operation

The indicators described above can then be used to classify projects at different stages in the project cycle. Furthermore, by entering new data into projects as they move from one project stage to the next, it is possible to evaluate the projects in comparison with earlier stages. For example, entering data on such elements as actual yields, prices or quantities sold once the project is underway allows returns, employment generation and other measures of project performance to be re-calculated automatically, and hence easily compared with original projections.

E. RuralInvest Users

RuralInvest is potentially useful for any group, organization or individual that wishes to elaborate an investment proposal that adequately takes into consideration all of the key elements in the identification, formulation and evaluation of a project. However, taking full advantage of the different tools offered by RuralInvest requires: (a) training in the RuralInvest methodology and tools, and; (b) access to investment and working capital in order to finance the selected projects. Experience has shown that RuralInvest is thus most applicable in contexts such as:

- An agricultural or rural development fund managed by a regional development project, a Ministry of Agriculture, or even an NGO;

- A Demand-driven Rural Investment Fund (DRIF) or Community Development Fund (CDF), as promoted by the World Bank and other international agencies;
- An environmental and biodiversity protection program or one aimed at the reducing the impact of natural disasters, such as are supported by the Global Environment facility (GEF) and other agencies.
- As a loan analysis and evaluation tool for use by private and parastatal banks with extensive operations in the rural sector.
- In the *ex-post* evaluation by Governments and international agencies of the impact and profitability of rural investments once they have been implemented.

With respect to training, although it is not necessary that the assisting local technicians be experts in financial matters or economic analysis, there are certain minimum requirements for the key positions of local technician and of regional technician:

Local Technician or Community Worker

- Experience as organizer or facilitator of rural communities or groups of producers.
- A basic understanding of the concept of a project.
- The ability to communicate with rural individuals or groups.
- Experience in one or more of agricultural production, rural infrastructure and small enterprises.

Regional or Support Technician

- Professional qualification, such as: agronomist, economist, administrator, engineer or other similar profession.
- Basic knowledge of rural production systems.
- Prior experience in the use of computers and MS Windows.
- Familiarity with the basic financial concepts.
- Participation in the first training course for field technicians.