



PILOTING JOB ROTATION PROGRAMME FOR EMPLOYMENT DEVELOPMENT IN AGRICULTURE

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PROJECT MANAGEMENT

E-Learning Training Materials– ENG-03

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PROJECT MANAGEMENT

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OBJECTIVES

To meet the educational needs of agricultural cooperatives and businesses in project management

TARGETS

To provide those working in agricultural cooperatives and agriculture-dependent businesses with the competence to prepare projects and to contribute to the production and management of successful projects

OUTPUTS

1. They understand the importance of work with projects and watch for opportunities for projects
2. They are more careful whether at the project preparation stage or at the implementation stage because they report the reasons for the failure of a project

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1. DEFINITIONS

1.1. What is a project?

In daily life, “project” can mean an activity, a plan, or even something imagined, but here it is used to mean “planned activities with clear beginning and end points, purpose and scope, whose budget is openly identified, and which are carried out one specific time” (Tekir, 2006). Any single activity or regular activities of any institution and without certain duration in other words activities which have no beginning or end, are not projects. A project should have at least one of the following characteristics (Tekir, 2006):

- It should bring about a change
- It should be concerned with bringing a strategic plan to life
- It should secure conformity between sides by agreements
- It must be effective in solving major problems (Tekir, 2006)

1.2. What is R&D?

It is systematically conducted work intended to increase human knowledge and to design new applications (Frascati Guide, 2002). R&D work can be of three kinds: fundamental, applied and experimental (Fig. 1). These three kinds are related in such a way that they should build on each other, starting from basic research (Fig. 2)

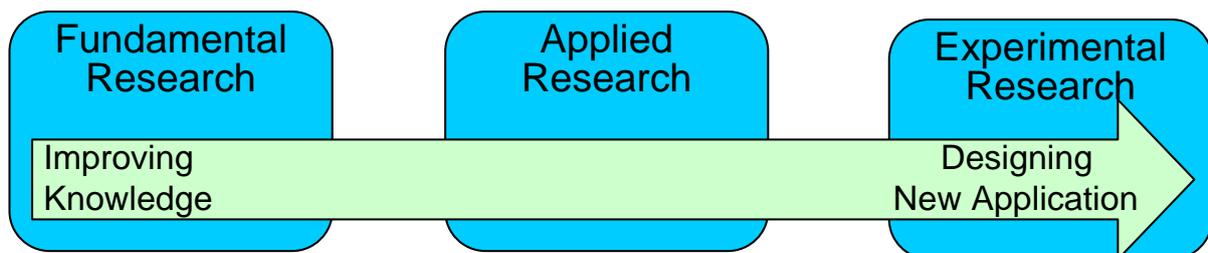


Figure 1. Types of R&D

The general characteristics of the kinds of R&D are as follows:

Fundamental research:

This is an approach to obtaining new knowledge which

- a. is significant, original, or without the thought of a use,
- b. underlies conceptual and experimental work and observable situations.

Applied research:

- a. Applied research is also concerned with producing original knowledge.
- b. As a main target it includes a directly original and practical aim.

Experimental research:

This is systematic work

- a. which arises from knowledge obtained from research and/or which is currently available
- b. but is used to produce new material or product
- c. to create a new process, system or service or to considerably improve those which have already been produced or created.



Figure 2. Relation between R&D types

1.3. What is innovation?

- a. To bring an idea to a point at which it can be marketed
- b. To develop it into a new product/method used in production
- c. To turn an existing idea into a developed product/method

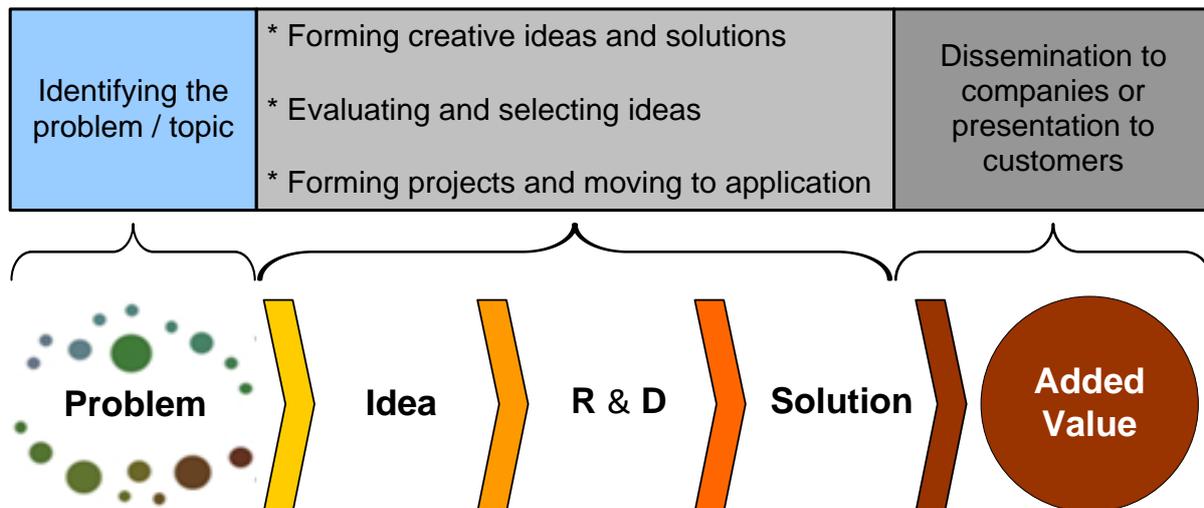


Figure 3. The development process and steps of innovation

Examples of Innovation

- a. Granulated sugar has been known for hundreds of years
- b. Cube sugar is easy to use and prevents waste
- c. Packaged cube sugar doesn't get wet on the saucer, and unused sugar can be used again.

Result: A new value and an economic gain



Figure 4. Innovation in sugar

2. WILL EVERYTHING YOU THINK OF AS A PROJECT GET SUPPORT?

It is necessary that ideas in the scope of projected R&D or innovation should contain a product or process innovation. Marketing or organizational innovations other than this will not be eligible for support.

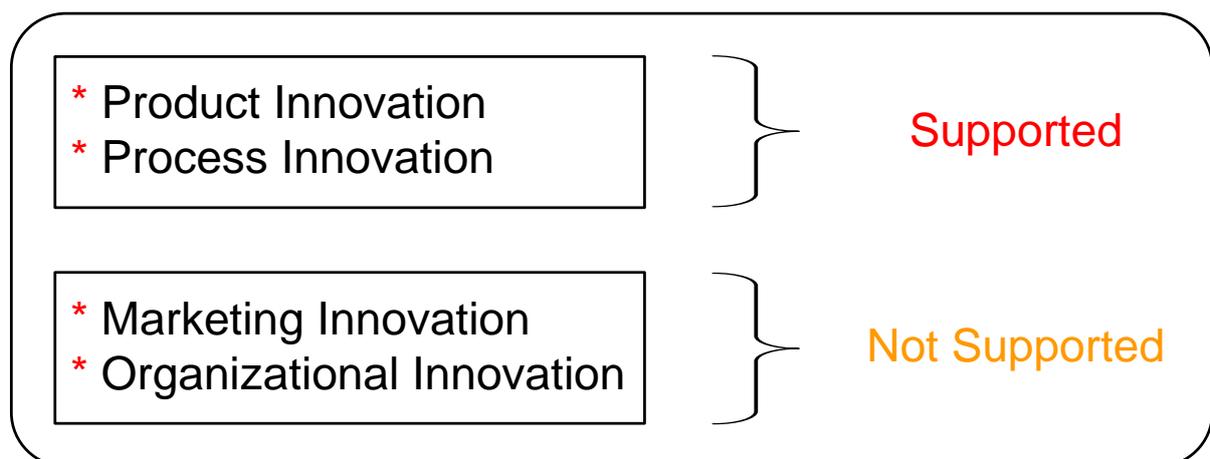


Figure 5. Which types of innovations are supported?

3. WHAT ARE THE COMMON COMPONENTS OF PROJECTS?

- ❖ They have certain beginning and ending times.
- ❖ They cover various duties, activities or events.
- ❖ They depend on a set of different sources.
- ❖ They begin and end at a specified time and are temporary
- ❖ They have specified targets and aims.
- ❖ They are to produce an original product or service.
- ❖ They are dependent on limited resources.
- ❖ They pass through a planning, application and control process.

4. CAN I TURN MY IDEA INTO A PROJECT?

We produce a lot of ideas to solve problems which we experience in relation to our field of activity or work. However, in order to bring these ideas to life, we need resources such as specialist personnel, financing, research, experimentation, analysis, and laboratories. In order to determine whether an idea can be turned into a project, we need to find answers to the following questions.

- What? How? Why?
- Which? Who?
- What do we want to succeed in?
- How much time do we need?
- What methods do I need to apply in work package activities?
- What personnel and experts do I need in the project?
- Who needs to be informed about the project, and at what level?
- How are we to plan activities for the work package?
- What problems may be encountered while the project is running?
- What is the cost of the project?

In particular, if a scientific project process is to be conducted which needs experts the following steps need to be followed. These are

1. Scanning the literature

2. Determining the research problem
3. Reading and summarizing the sources
4. Determining research and analysis methods
5. Collecting and analyzing data
6. Interpreting findings
7. Preparing a research report

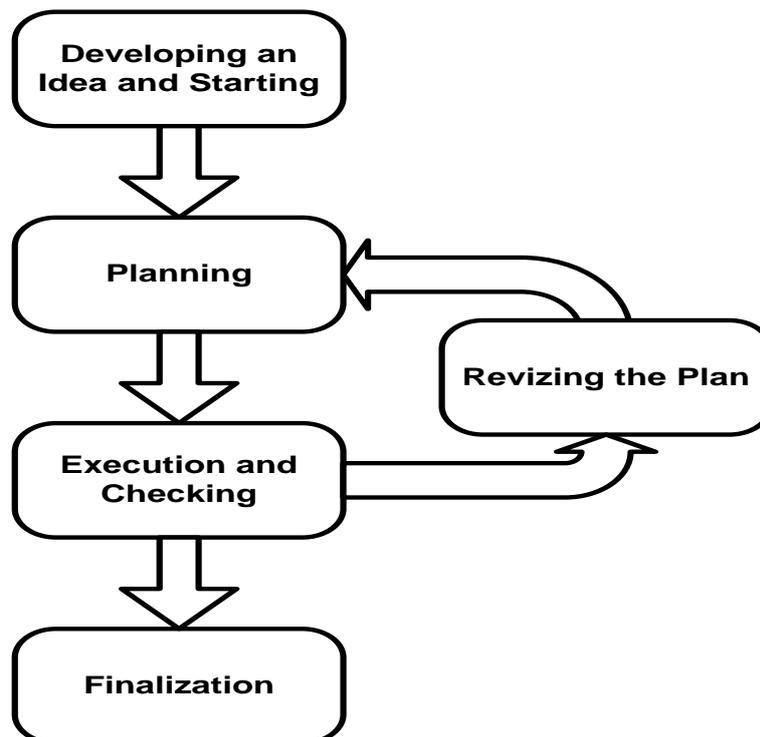


Figure 6. Project management steps

5. WHERE WILL I FIND SUPPORT FOR MY PROJECT?

According to the type of project, there are many institutions which offer grants, proportional grants or various kinds of repayable support programmes. While grants and proportional grants are generally given to projects such as R&D, innovation and industrial design projects, investment projects generally receive partial grants or low-interest credit.

5.1. Institutions which give grant or credit support to projects

- a. TÜBİTAK (The Scientific and Technological Research Council of Turkey)
- b. EU funds

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- c. KOSGEB (Small and Medium Enterprises Development Organisation)
- d. The Ministry of Development
- e. The Ministry of Science, Industry and Technology
- f. TTGV (Technology Development Foundation of Turkey)
- g. Development agencies
- h. TKDK (The Agriculture and Rural Development Support foundation)
- i. The Ministry of Food, Agriculture and Livestock
- j. Banks (low-interest credit)
- k. Other foundations and ministries

6. ARE THERE PROJECTS' INCENTIVES OR SUPPORTS OTHER THAN GRANTS?

The following incentives are available for R&D expenses:

- a. R&D discounts
- b. Income tax at-source deductions
- c. Insurance payment support
- d. Stamp duty exemption
- e. Techno-Initiative Capital Support Program Details

These incentives were arranged under the following laws and regulations:

- No 4691: Law on Regions of Technology Development
- No 5746: Law on Support for Research and Development Activities
- No 635: Other duties relating to R&D policies and strategy in the scope of KHK

Determining a foundation with priorities which accord with the targets of the project is one of the most important steps. The target, strategy and priority areas of the foundation to which we are going to apply for funding to support our project must accord with our project targets.

7. WHY WORK AS A PROJECT?

The most important topic in project management is the reason for making the project. What do we want to obtain as a result of the project? Why do we need a project? What will be the concrete thing which we will obtain when the project is completed? It is necessary to have definite answers to these questions before starting on the project.

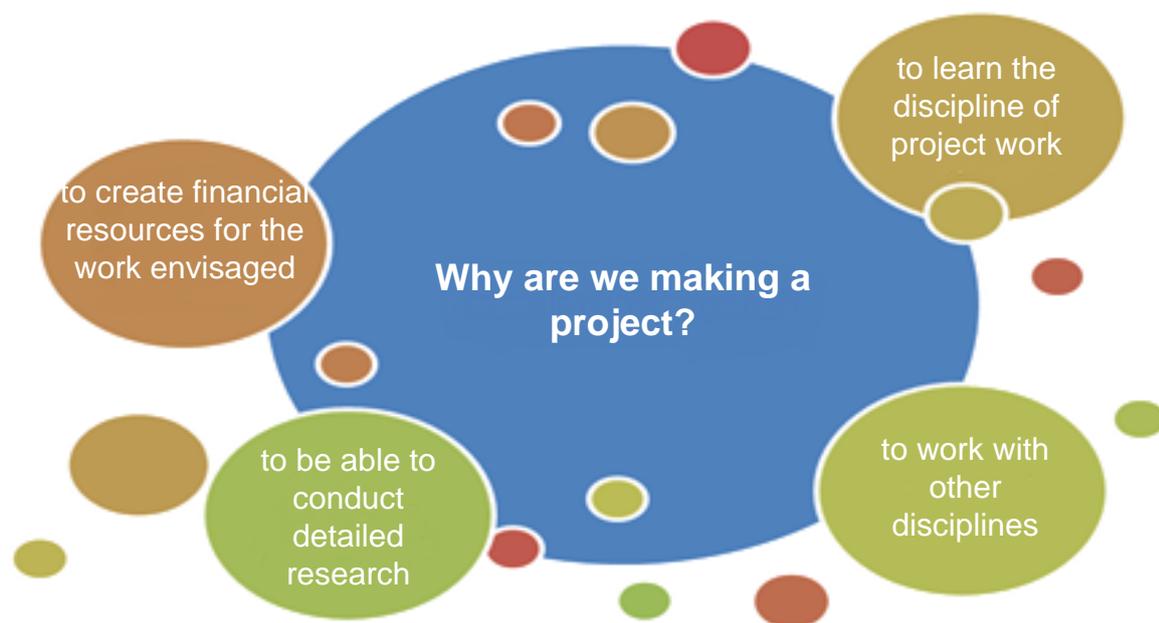


Figure 7. Why make a project?

8. WHAT DO I NEED TO PAY ATTENTION TO IN APPLYING FOR A PROJECT?

At the stage of preparing to apply for a project, the following documents must first be examined in detail according to the supporting institution:

1. The Basics of Support Programme Implementation
2. An Empty Project Application Document
3. Preparation Guide for Project Proposal Information
4. Evaluation Measures
5. Financial Report Preparation Guide (if available)

9. WHAT ARE THE PROJECT PROCEDURES?

There are generally four steps in a project:

1. Project proposal preparation and application
2. Project acceptance and signing the agreement
3. Conducting the project
4. Terminating and closing the project

9.1. Project proposal preparation and application

Before passing to the stage of preparing the project proposal, it is first necessary to state the targets and limitations of the project. Thus, the targets to be stated at the beginning of the project must be SMART:

- Specific, clear and comprehensible
- Measurable, and open to comparison
- Accurate and consistent
- Realistic and tangible
- Time bound

Possible project limitations and types of limitation

- Time
- Budget
- Quality
- Resource limitations
- Technological limitations
- Management rules

Also, carrying out the following according to the content of the project topic will reduce uncertainties at the project preparation stage and will make project management easier.

- Explaining the terms, classifications and criteria to be used in the project
- Specifying the needs for instruments, equipment etc. to be used in the project
- Specifying the need for pre-testing in the project,

- Providing the necessary manpower and the need for training,
- Specifying the necessary methods for collection, arrangement and analysis of data
- Setting out problems relating to professional ethics
- The necessity of obtaining permission for the project and obtaining it if needed
- The possibility of conducting the project within the timetable and the upper limits of the support programme
- Preparation of the project budget

By setting out the targets and limitations of the project at the outset and reducing the uncertainties which emerge later at the project preparation stage, it is possible to move on to project proposal preparation and the application procedure.

9.1.1. Project documents and managing the application process

- The deadline date and time for project application must not be missed. When applying for some score-based projects, it must not be forgotten that equal projects that were applied for previously will be given preference.
- At the stage of completing application forms, care must be taken that online uploads and documents which are to be sent in writing are completed in full.
- Documents from different institutions which are required in the project file must be acquired before the final application date.

9.1.2. Human Resources

- A suitable team must be set up for project package activities. When drawing up duty plans for personnel in the project, duties outside the project must be taken into account.
- If there is a support programme sample form for the CVs of the project team, they must be prepared in accordance with it. If there is no CV format, a sample must be created and all personnel must prepare their CVs on the same format.
- In the CVs of personnel, characteristics which show expertise relevant to the topic of the project and to duties to be assumed in the work packages must be brought to the fore.

9.1.3. Writing a project proposal and establishing its content

- Before writing the project, the guide to the implementation principles of the support programme, preparation of project proposal information and financial conditions (if available) must be read carefully.

- The project application form used must be up to date.
- The project topic, scope, aims, and targets must be clearly written.
- Project targets must be specified with the use of numerical data.
- The method to be used in the project and its practicality must be clearly stated.
- The time limits of the project support programme must be known.
- Project work packages must be drawn up so as to accord with the project support upper time limit.
- A careful examination must be made of what the project evaluation measures are.
- The expectations of those sharing duties in the project must be in agreement and must be put in writing.
- Project success criteria and alternative plans to counter expected risks must be stated.

9.1.4. Creating the project budget

In the project proposal, the necessary financial estimates and pre-budget determinations are of great importance.

- The project budget must not exceed the upper limit of the support programme.
- The budget must be planned taking account of the scope and possible limits of items, or their proportional distribution. These limits and proportions must not be exceeded
- In project purchasing, prices must be taken paying attention to the project evaluation process and the proforma validity period must cover this.
- Human resources costs and personnel costs must be well planned.

9.2. What needs to be paid attention to at the stage of project acceptance and signing an agreement?

The project agreement is an official document stating the official start of the project, those responsible and the parties' legal responsibilities. The project manager is officially appointed with the project agreement.

- If there is any change in the starting date after the project is accepted, it must be ascertained whether this affects work package activities.
- If there is a change in the direction of a reduction in the budget before the agreement, a new budget and project practicability must be considered.

- If there is a question of a reduction in the budget, measures to eliminate the resulting financial shortfalls must be examined.
- In evaluating the project, the load of extra requests must be investigated.

9.3. Conducting the project

- It is the total of the work done to plan and monitor activities systematically.
- Project management is meeting and exceeding the expectations of the participants by implementing knowledge, skills and means in the project work.
- In realizing a project, it is applying all the knowledge, skills, materials and techniques to meet or exceed the expectations of those benefitting from the work.
- Project management means carrying out the defined task
 - in the optimum period
 - at the optimum cost
 - at the targeted quality



Figure 8. Management triangle

9.4. Project evaluation

The success of a project is measured against its aims. In other words, it is an official and independent examination of a project which goes on to implementation. According to its scope and size, the evaluation of a project may need to concentrate on various different topics in the work. At this stage, the project team, output and results are examined according to various criteria. This shows whether or not the aims and results of the proposed project have been achieved. At the end of the project the

project manager presents the Final Financial Report or the Final Technical Report to the supporting foundation or institution, and assesses whether the targets specified in the project have been achieved and whether the project budget has been used in a suitable way.

10. QUESTIONS

1. Which one is not one of the features of a project?
 - It should bring about a change
 - It should be concerned with bringing a strategic plan to life
 - It should secure conformity between sides by agreements
 - It should provide employment
 - It must be effective in solving major problems
2. It is systematically conducted work intended to increase human knowledge and to design new applications”
 - True
 - False
3. “There are three kinds of R&D works: fundamental, applied and experimental”
 - True
 - False
4. “To develop a new product/method used in production is a kind of project”
 - True
 - False
5. Which one is not one of the four steps projects should have?
 - Preperation of a project proposal and application
 - Acception of project and signing contract
 - Conducting project
 - Meeting of all project partners semi-annually
 - Closing project
6. Which one is not definitely takes a place in a scientific project?
 - Scanning the literature
 - Determining the research problem
 - Determining research and analysis methods
 - Collecting and analyzing data
 - Interpreting findings
 - Making the findings know publicly
 - Preparing a research report
7. Which one is not a common component of projects?
 - They have certain beginning and ending times.
 - They cover various duties, activities or events.
 - They depend on public resources.
 - They have specified targets and aims.
 - They are to produce an original product or service.
8. “Projects provides an opportunity for different diciplines to work together”
 - True
 - False
9. Which is not one of the targets needed to identify at the beginning of projects?
 - Specific, clear and comprehensible
 - Measurable, and open to comparison
 - Easy accessible
 - Accurate and consistent
 - Realistic and tangible
 - Time bound
10. “Project Management means to conduct described and specified a work in a minimum time with a minumum cost and highest quality”
 - True
 - False

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