AGRICULTURAL TVET   COLLEGE

MODEL TTLM

SMALL SCALE IRRIGATION DEVELOPMENT

LEVEL-IV

Learning Guide- 07

Unit of competency: COORDINATE WORK SITE ACTIVITIES
Module title: COORDINATING WORK SITE ACTIVITIES

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Nominal duration: 18 Hrs

Instruction sheet	Learning guide- 09

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:–

- ➢ Prepare for work site activities
- ➢ Organize resources
- ➢ Coordinate and report on activities

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to

- ➢ Prepare for work site activities
- ➢ Clarify resource requirements of the work
- ➢ Identify personnel, equipment and material requirements
- ➢ Identify, document and present order of activities and time allocation
- ➢ Identify the environmental implications of work
- ➢ Assess and reporting outcomes of work.
- ➢ Identify OHS hazards
- ➢ Assess and reporting risks
- ➢ Select, use Personal Protective Equipment (PPE)
- ➢ Organize resources
- ➢ Purchas materials and/or leasing equipment/machinery
- ➢ Gain external agency permits
- ➢ Organize delivery of materials and equipment/machinery to site
- ➢ Organize personnel
- ➢ Coordinate and report on activities
- ➢ Coordinate and timing resources
- ➢ Plan and organizing activities
- ➢ Direct personnel in activities for each period of work.
- ➢ Monitor and documenting personnel, activities, timelines and resource usage
- ➢ Recognize and reporting contingency situations
- ➢ Writ work site report
- ➢ Undertake and completing of work site activities

➢ Associate and undertaking environmental awareness

I Learning Activities

1. Read the specific objectives of this Learning Guide.
2. Read the information written in the "Information Sheets.
3. Accomplish the "Self-check" at the end of each learning outcomes.
4. If you earned a satisfactory evaluation proceed to the next "Information Sheet" However,

 If you acting is unsatisfactory, see your teacher for further instructions or go back to the

   Learning Activity.
5. Submit your accomplished Self-check. This will form part of your training portfolio
6. Follow the steps and procedure list on the operation sheet

Information Sheet-1	Prepare for work site activities

Introduction

1.1 Clarifying resource requirements of the work

Before starting work site activities clear understanding of the work requirements with supervisor and the personnel involving in the project is necessary. which include:

➢ Allocate resources.
➢ Determine workload requirements
➢ Assigning resources based on the individuals available or skills required;
➢ Assigning equipment and facilities based on the performance and capacity;
➢ Determining workload requirements by individual or function for each week of the project; and
➢ Assessing training requirements

The extent to which resources have the required skills or expertise may significantly affect training. Prepare a workload analysis report which may be graphical or tabular in format. The resource plan is only an estimate of the workload distribution. Automated resource planning tools that link the schedule to the resource requirements may be used so that as the schedule changes, the resource plan is updated automatically. Project planning and scheduling tools generally provide this functionality.

In addition to human resources, equipment, supplies, materials, and facility needs. What resources can be leveraged so that the project expands capabilities by:

➢ Adding resources that improve the chances for success

➢ Assessing your available resources will help determine the best strategy for implementing your project and should be part of your community assessment process.

Begin this analysis with the resources that currently exist within the community. Every project and every strategy is different and requires a different set of resources, but a few hard-and fast rules exist in the assessment of available resources.

1.2 Identifying personnel, equipment and material requirements

Worksite personnel is a labour hire and Recruitment Company, which provides its clients complete services to meet the expectations. The quality and reliability of Worksite Personnel service is the concern of every person in the organization.

Personnel may include those obtained from within an enterprise, staff "borrowed" from another enterprise, hired from a contracting firm, or hired for the project from outside the industry.

Equipment and **machinery** are impotent to accomplish different activities in the workplace. These may include hand tools, tractors, vehicles, watering equipment and personal protective equipment which are used in agricultural activities.

Materials are also the other components required at agricultural worksite activities. These may include goods that will be consumed by the project such as fertilizers, plants, stakes and mulch in a planting program. Therefore, personnel, equipment and material resource requirements should be identified according to the scope of the project and supervisors instructions for the success of the project. Moreover, the order of activities and time allocation each and every activity should also be identified documented and presented to the supervisor for verification.

1.2 Identifying, documenting and presenting order of activities and time allocation

Project scheduling is one of the critical management tasks as it dictates the time frames in which the project will be completed, the budgets/costs in terms of resource requirements and the sequence of tasks to be completed.

Project scheduling is defined as the process of determining when project activities will take place depending upon defined durations and precedent activities. Schedule constraints specify when an activity should start or end, based on duration, predecessors, external predecessor relationships,

resource availability, target dates or other time constraints. Project scheduling is a complex and iterative task which typically involves:

- ➤ Assigning resources to project tasks;
- ➤ Balancing completion dates against the availability of the appropriate resources to complete all tasks within the available time;
- ➤ Identifying dependencies between tasks so that they are scheduled in the correct sequence;
- ➤ Identifying realistic start and end points (elapsed time) to accommodate the number of man days work for each given task; and
- ➤ Critical path analysis to identify those tasks which are critical to the success and timely completion of the project. The Project Schedule includes the planned dates for starting and completing activities in one or more of the following forms:
- ➤ Milestone;
- ➤ Deliverable; Planning and scheduling Activity; and Gantt.

A Project Schedule is often confused with or referred to as a Project Plan. From the definitions above, it can be seen that the Project Schedule, whilst a key deliverable, is only one component of a Project Plan. The Project Plan assists a Project Manager in communicating with business work streams and gaining support for the project. A business manager with no technical knowledge should be able to understand the essence of the project through the project leader, the project concept and the project plan.

1.4 Identifying the environmental implications of work

An environmental aspect is any feature of an organization's activities, products, or services that can 'interact' with the environment or, in other words, that may have an impact on the environment. An activity is anything the organization does in the course of its business; products are the result of manufacturing processes used by an organization; services are activities conducted in support of manufacturing activities. An environmental impact may be adverse or beneficial.

A significant environmental aspect is one that has a significant environmental impact, or has the potential to cause significant impact. Significance is a relative term, and is determined by assessing the relative risks of various activities, products, or services.

Identification of environmental aspects is one of the first tasks that must be undertaken when planning implementation of a project, because determining how to control the most significant aspects will be a primary focus in the early phases of the work. When identifying and assessing the significance of environmental aspects, all components of a company's operations must be considered, not just the obvious manufacturing activities.

Environmental implications may include threats to flora and fauna; risk of contamination of soils, water or adjoining property through fertilizers and chemicals flowing into drains and water sources. Land used for a planting program for example may include chemical residues in the soil, spray drift, contaminated run-off water, run off from over-watering, diseased plant material, waste plant material, and physical damage such as soil compaction from machinery. Environmental implications may also include effects on wildlife, local communities, traditional cultural practices, aesthetic values, recreational uses, and interactions between any of these.

Therefore, the environmental implications of the proposed work site activities must be identified and the likely outcomes should also be assessed and reported to the supervisor.

1.5 Assessing and reporting outcomes of work.

Project reporting all Interring programmes require progress reporting during project implementation. The aim of the reporting process is to establish whether project objectives have been achieved, what resources have been expended, what problems have been encountered, and whether the project is expected to be completed on time and within budget. If performance is sufficient, the project will receive payment from the programme for costs incurred, paid and reported. The most common practice is that programmes have one progress report form which includes both financial and content related information and has to be supplemented by required attachments. In additional, programmes often have a separate final report form which is submitted at the end of the project. The frequency of the reports submitted is decided by the programme, and this varies from programme to programme.

1.6 Identifying OHS hazards

Occupational Health and Safety (OHS) hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations. The occupational safety and health administration requires employers to protect their employees from workplace hazards that can cause injury.

In general, Hazards are classified into five different types. They are

- **Physical** - includes floors, stairs, work platforms, steps, ladders, fire, falling objects, slippery surfaces, manual handling (lifting, pushing, pulling), excessively loud and prolonged noise, vibration, heat and cold, radiation, poor lighting, ventilation, air quality
- **Mechanical and/or electrical** - includes electricity, machinery, equipment, pressure vessels, dangerous goods, forklifts, cranes, hoists
- **Chemical** - includes chemical substances such as acids or poisons and those that could lead to fire or explosion, cleaning agents, dusts and fumes from various processes such as welding
- **Biological** - includes bacteria, viruses, mould, mildew, insects, vermin, animals
- **Psychosocial environment** - includes workplace stressors arising from a variety of sources.

A hazard is a source or potential source of human injury, ill health or disease. Anything which might cause injury or ill health to anyone at or near a workplace is a hazard. While some hazards are fairly obvious and easy to identify, others are not - for example exposure to noise, chemicals or radiation.

Note that some physical and chemical hazards can lead to fire, explosion and other safety hazards. Workplace injury is a major cause of concern for all involved in occupational health and safety. The factors which cause workplace accidents and occupational illnesses are called hazards. The need for systematic management of OHS hazards and their attendant risks applies to all organizations and all activities and functions within an organization. It is important to distinguish between hazard, risk and exposure when undertaking risk management. Hazard is the potential for harm, or adverse effect on an employee's health. Anything which may cause injury or ill health to anyone at or near a workplace is a hazard.

1.7 Assessing and reporting risks

Assessing risk involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening. Carrying out a risk assessment can help you evaluate the potential risks that may be involved in an activity or undertaking.

A risk assessment can help determine:

➢ how severe a risk is
➢ whether any existing control measures are effective
➢ what action you should take to control the risk
➢ How urgently the action needs to be taken.

A risk assessment should be done when:

➢ there is uncertainty about how a hazard may result in injury or illness
➢ the work activity involves a number of different hazards and there is a lack of understanding about how the hazards may interact with each other to produce new or greater risks
➢ Changes at the workplace occur that may impact on the effectiveness of control measures.

A risk assessment can be carried out with varying degrees of detail depending on the type of hazards and the information, data and resources you have available. It can be as simple as a discussion with your workers or involve specific risk analysis tools and techniques recommended by safety professionals.

Risks are internal or external events that may occur during project implementation and could threaten the achievement of project objectives and the project as a whole. A risk could be, for example, a partner dropping out or a key change in policy that goes against what the project is trying to achieve. Basic risk management is important for every project, but the level of detail needed varies depending on the size of the project and the number of risks and possible impacts on the achievement of the objectives. Identifying risks and outlining contingency measures for when they happen should be a task for every partnership, regardless of whether this is required by the programme or not. This process involves three steps:

1. Identifying risks to identify risks you can look at possible sources of risk or at the threats / problems that can become risks. Sources include the team members, stakeholders, sub-contractors, target groups, etc. Problems could be, for example, a change in the political environment or the loss of money through de commitment. A good way to identify relevant risks can be an open brain-storming session at one of the partner meetings either during the project development stage or very early on in the start-up phase on 'What can go wrong?'' All partners should be involved in this process to

a) Raise their awareness about possible risks, and

b) to identify as many relevant risks as possible (especially with reference to different countries, legislations, sectors, and types of organizations involved). Do not let this exercise get out of hand: It is not about spreading gloom and panic, but rather identifying issues where a few sensible precautions can be taken.

2. Assessing risks once potential risks have been identified, they need to be qualified according to their impact on the project and their probability of occurring. As with most other aspects of planning, the assessment of probability can often only be based on assumptions and educated guesses. The impact, however, can often be estimated in relation to the budget and time lost or indicators not achieved. This assessment allows projects to priorities risks – the 'high risk' decisions and actions have to be taken first.

3. Dealing with risks when a problem occurs it is often too late to take any preventive or alternative actions. The project manager and partners concerned have therefore to decide in advance how to handle each risk while there is sufficient time. Possible approaches are: · Ignore the risk. This is sensible for risks with a low impact, or where the resources to develop alternatives would be greater than the impact of the problem, or if the probability is low but implications would be so substantial that the project cannot compensate for them anyway. Example: Natural disasters. · Identify alternative ways to remove the risk. This is usually the approach to take for risks with high impact and high probability. Example: The project success depends on political support in all participating regions. It is known that the regional government in one of the participating regions could lose the regional elections that will take place in the middle of the project implementation. The possible new government will have different priorities

and will probably not support the project. · Have a contingency plan to reduce the impact of problems that do happen. This does not remove the risk but is a temporary solution. Example: The project developer has been the driving force behind developing the idea and bringing the partnership together. He/she is a key asset in the project. A plan must be made for the loss of this member of staff, ensuring that their knowledge and ideas are communicated to other people in the organization so the project can continue without them, if necessary.

Reporting risks

Risk is the likelihood that a hazard will cause injury or ill health to anyone at or near a workplace. The level of risk increases with the severity of the hazard and the duration and frequency of exposure. Exposure occurs when a person comes into contact with a hazard.

Risk management is an organizational issue and a successful program requires the commitment and cooperation of all. All program managers and their staff need to recognize the fundamental importance of occupational health and safety risk management for it to work. Best practice is embedding occupational health and safety risk management into daily usage at all levels of an organization. Achieving best practice is how you can integrate risk management principles and practices into everyday business practice .Thus, OHS hazards are a must to be identified, risks be assessed and then they are necessary to be **reported** to the supervisor for taking appropriate cares.

1.8 Selecting, using Personal Protective Equipment (PPE)

Hence, personal protective equipments (PPEs) should be selected, used, maintained and stored according to the type of work site activities to be undertaken.
Employees have a responsibility to use PPE in accordance with their training and safe usage requirements. For example PPE will be determined by the type of activity being undertaken and may used for coordinate work site activities include:

➢ work boots,
➢ gloves,
➢ overalls,
➢ sun hat and sunscreen lotion,

- ➢ safety harness,
- ➢ hard hat, hearing or
- ➢ eye protection,
- ➢ Respirator or face mask.
- ➢ wear earplugs in noisy areas
- ➢ wear eye protection when working with hazardous chemicals
- ➢ Wear gloves to protect against infection.

Personal protective equipment (PPE) should only be used as a last resort. PPE is for short term solutions only. PPE protects an employee's body from hazards. PPE must be provided free of charge and maintained by the employer. Employers are also required to ensure that workers are trained in the proper use of PPE. • wear eye protection when working with hazardous chemicals

Self-Check 1	**Written Test**

Name: _____   Date: _____

Directions: Answer all the questions listed below.

1. Personnel, equipment and material resources are required during work site activities. So, what do personnel, equipment (machinery) and material may include?

   a. Personnel

   b. Equipment(machinery)

    c. Material

2. Define the following terms

    a. Hazard

    b. Risk

    c. Exposure

3. List the five different types of hazards and explain them.

4. Mention at list four personal protective equipments in your field

Note: Satisfactory rating - 25 points and above   Unsatisfactory - below 25points

You can ask your teacher for the copy of the correct answers.

Information Sheet-2	Organize resources

Organization is the planned coordination of the activities of more than one person for the achievement of a common purpose or goal. It is accomplished through the division of labor and function and is based on a hierarchy of authority and responsibility. Jobs and the people who perform them are structured in a way that accomplishes the goals of an organization. Some organizational tools are used to communicate the structure, the purpose, and the methods used to accomplish the shared work of the organization's members.

The organization is also where resources come together. Organizations use different resources to accomplish goals. The major resources used by organizations are often described as follow:

➢ Human resources

➢ Financial resources

➢ Physical resources and

➢ Information resources.

Managers are responsible for acquiring and managing the resources to accomplish goals.

2.1 Purchasing materials and/or leasing equipment/machinery

Materials to be consumed by the activity may be available through the enterprise as a stockpile or stored goods, or it may be purchased for the job. Materials are often available through supply companies. The enterprise may have purchasing policies and procedures and existing accounts with some suppliers.

Materials may include goods that will be consumed by the project such as

➢ Fertilizers

➢ Plants

➢ Stakes and

➢ Mulch in a Planting program.

Fertilizers

Fertilizers are substances that supply plant nutrients or amend soil fertility. They are the most effective means of increasing crop production and of improving the quality of food and fodder. Fertilizers are used in order to supplement the natural nutrient supply in the soil, especially to correct the (yield-limiting) minimum factor.

Fertilizers are soil amendments applied to promote plant growth; the main nutrients present in fertilizer are nitrogen, phosphorus, and potassium (the 'macronutrients') and other nutrients ('micronutrients') are added in smaller amounts. Fertilizers are usually directly applied to soil, and also sprayed on leaves ('foliar feeding').

Fertilizers typically provide, in varying proportions:

The three primary macronutrients:

➢ Nitrogen (N)

➢ Phosphorus (P) and

➢ Potassium (K).

The three secondary macronutrients:

➢ Calcium (Ca)

- ➢ Sulfur (S)
- ➢ Magnesium (Mg).

The micronutrients or trace minerals:

- ➢ Boron (B)
- ➢ Chlorine (Cl)
- ➢ Manganese (Mn)
- ➢ Iron (Fe)
- ➢ Zinc (Zn)
- ➢ Copper (Cu)
- ➢ Molybdenum (Mo) and
- ➢ Selenium (Se).

The macronutrients are consumed in larger quantities and are present in plant tissue in quantities from 0.2% to 4.0% (on a dry matter weight basis).

Different Types of Fertilizers

Fertilizers can be placed into categories of organic fertilizers and inorganic fertilizers.

Organic Fertilizers

Naturally occurring fertilizers include:

- ➢ Manure
- ➢ Worm castings
- ➢ Peat moss
- ➢ Seaweed
- ➢ Sewage
- ➢ Guano

Equipment and machinery to be used for the activity may be available through the enterprise, or hired or "borrowed" for the job. There are many commercial places that hire machinery on a daily charge out rate, or some enterprises may lend specialist equipment or machinery as part of a reciprocating arrangement.

Equipment and machinery may include

- ➢ Hand tools
- ➢ Tractors

- ➢ Vehicles
- ➢ Watering equipment and
- ➢ Personal protective equipment.

Hand tools

Some hand tools used in different operation.
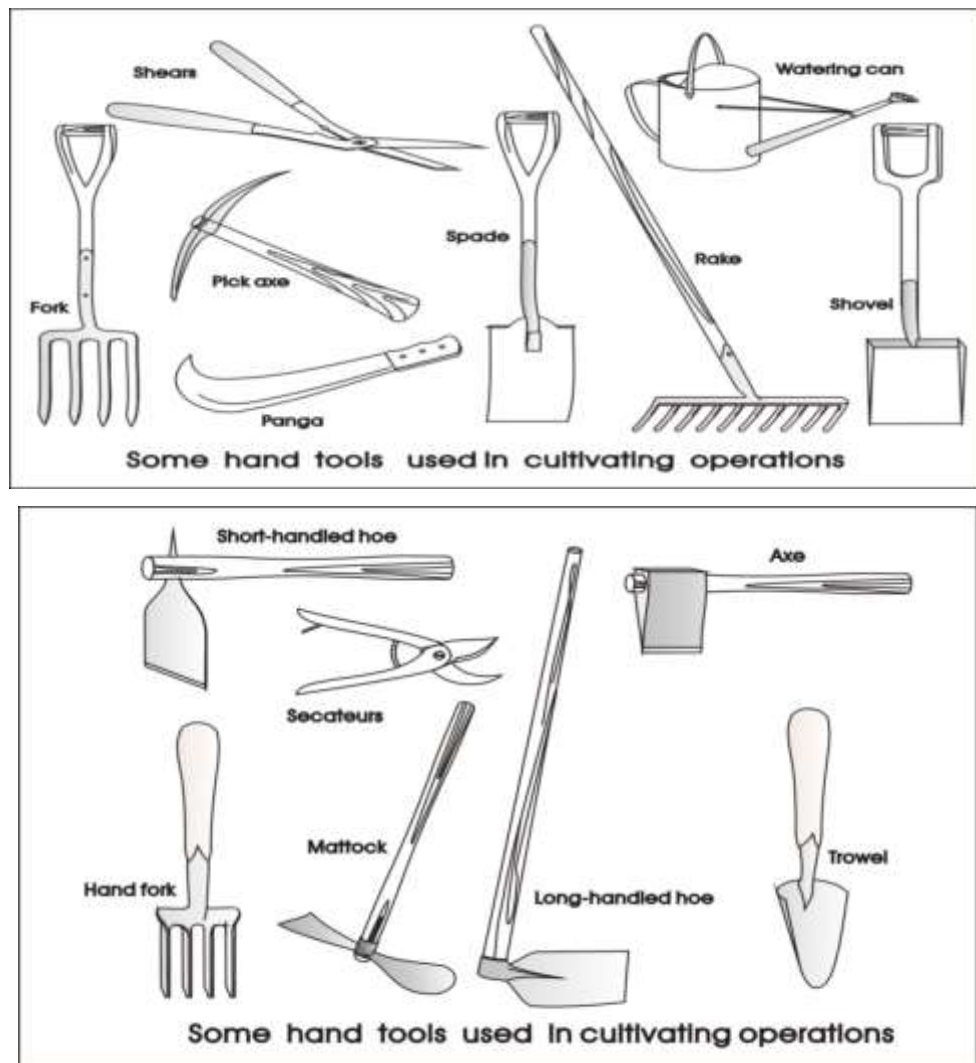

Figure 2.1 showing different types of hand tools

Secateurs:-

They are strong enough to prune hard branches of trees and shrubs, sometimes up to two centimeters thick. They are used in gardening, arboriculture, farming, flower arranging.

Figure 2.2 secateurs

Wheel barrel:

Used for transferring all kinds of materials in the work site. Is essential for carrying important tools, seed and seedlings into the field. Keep tres pumped up, grease all moving parts, wash out soil or rubbish after use and store out of the weather.
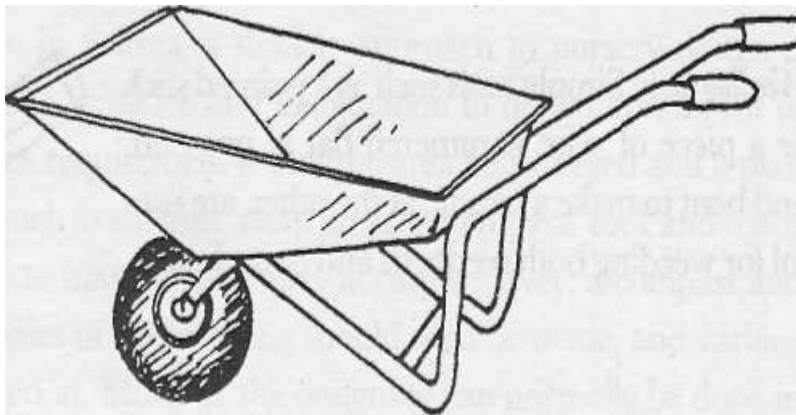

Figure 2.3 wheel barrow

Spade:

There are many jobs in agriculture that require the use of hand tools. A spade, commonly used in gardens, is good for digging because of the flat, sharp shape. Useful for cutting and digging heavy soil, digging straight-sided, flat-bottomed trenches, or removing a layer of soil.

Figure 2.4 spades

Shovels: Used for moving earth, sieving soil, soil mixing, etc. Shovels are used for digging and lifting loose soil or other substances.

A shovel is a tool for digging, lifting, and moving bulk materials, such as soil, coal, gravel, snow, sand, or ore.

Figure 2.5 shovels

Forks:-

Used for turning compost, lifting bare-root seedlings, loosening soil.

Figure 2.6 forks

Rakes:

A rake, usually with a long handle and a finger-like base, is used in gardening and clean-up.

Break up and level the soil; and it has a row of 10-16 teeth and is kitted up with a 1.80 m handle.

A rake is a tool used to gather or loosen material or to grade or level a surface.

Rakes work a lot like pitchforks in that they can turn over soil so that plants can get more nutrients. The difference is that the prongs on a rake create a right angle next to the handle, where as a pitchfork is only slightly curved.

Figure 2.7 rakes

Hand Fork:-

The most useful garden tool when hand weeding to loosen the soil around the weeds and ensure that all of the roots come out. Then afterwards a general scuffle over the surface leaves a tidy finish. It can also be used for planting out.

Figure 2.8 hand fork

Pickaxe: used to break up hard and stony ground

Picks and mattocks are used to work soil that is hard, rocky or root filled.

A pick has a pointed tip on one end and a chisel like tip on the other.

Figure 2.9 pickaxe

Hand Trowel:-For smaller jobs such as planting bulbs and bedding plants in cultivated soil. A stainless steel version is probably best as the blade stays cleaner and is easier to spot if left lying around.

Figure 2.10 hand trowel

Hoe:-

The two main types are the draw hoe and the cutting hoe. The draw hoe has its blade set at a right-angle to the shaft and is used to draw soil towards the operator when making planting drills or when mounding-up potatoes.

Figure 2.11 hoe

Panga or Mattock: are used to cut down stubborn weeds, reeds, tree saplings and can also be used to harvest grain

Mattocks are used for loosening soil that is root filled.

Mattocks have an axe-head on one side and a flat hoe like head on the other

Figure 2.12 panga or mattock

Shears:-

Shears are large scissors that farmers and gardeners use to prune their plants. They can be used to cut off dead or dying portions to save the healthy part of the plant.

Figure 2.13 shears

Tractors

Tractor is a multipurpose machine that can help our irrigation and work site related activities. It can perform whatever activities that we want perform in our work site.

Vehicles

Vehicles are important transportation machines that have great contribution in facilitation of works.

Wearing equipment

Here we can use different types of wearing equipments especially PPE that are appropriate to our work.

Personal protective equipments

During the controlling activities of our irrigation project site there may be various types of OHS hazards may occur. This may include:

- Disturbance of services
- Solar radiation
- Dust
- Noise
- Through traffic
- Uneven surfaces and holes
- Moving machinery and machinery parts
- Powered equipment and hand tools
- Confined spaces
- Hazards from use of hired equipment (untrained staff) and
- Overhead hazards including power lines.

In order to overcome the above OHS hazards we are expected to select and use appropriate personal protective equipments. PPE will be determined by the type of activity being undertaken and may include

➢ Work boots

➢ Gloves

➢ Overalls

➢ Sun hat and sunscreen lotion

➢ Safety harness

➢ Hard hat

➢ Hearing or eye protection

➢ Respirator or face mask

2.2 Gaining external agency permits

The success of Irrigation projects are always relies on the interests and integration of different institutions, managers, technicians and community. During coordination of irrigation site some typical activities that may need a permit during irrigation work site coordination may include:

➢ Pruning or removal of large trees,

➢ Connecting to water systems,

➢ Application and disposal of chemicals and polluted waters,

➢ Operating specialized machinery (e.g., chainsaws, skid steer loaders, forklifts),

➢ Working outside normal hours,

➢ Setting up traffic and pedestrian barriers and digging near services (phone, gas, power, water, sewerage and drains).

These activities may affect others that they need to be permitted by the external agencies. Unless and otherwise there may be different types of injuries and hazards may occur and there may be loss of production and different machineries.

2.3 Organizing delivery of materials and equipment/machinery to site

Handling, using and storing materials involve diverse operations such as hoisting tons of steel with a crane; driving a truck loaded with concrete blocks; carrying bags or materials manually; and stacking palletized bricks or other materials such as drums, barrels, kegs, and lumber.

The efficient handling, using and storing of materials are vital to irrigation projects. In addition to raw materials, these operations provide a continuous flow of parts and assemblies through the workplace and ensure that materials are available when needed. Unfortunately, the improper handling, usage and storing of materials often result in costly injuries.

What precautions should workers take when moving materials manually?

When moving materials manually, workers should attach handles or holders to loads. In addition, workers should always wear appropriate personal protective equipment and use proper lifting techniques. To prevent injury from oversize loads, workers should seek help in the following:

➢ When a load is so bulky that employees cannot properly grasp or lift it,

➢ When employees cannot see around or over a load, or

➢ When employees cannot safely handle a load.

Using the following personal protective equipment prevents needless injuries when manually moving materials:

➢ Hand and forearm protection, such as gloves, for loads with sharp or rough edges.

➢ Eye protection.

➢ Steel-toed safety shoes or boots.

➢ Metal, fiber, or plastic metatarsal guards to protect the instep area from impact or compression.

Employees should use blocking materials to manage loads safely. Workers should also be cautious when placing blocks under a raised load to ensure that the load is not released before removing their hands from under the load. Blocking materials and timbers should be large and strong enough to support the load safely. In addition to materials with cracks, workers should not use materials with rounded corners, splintered pieces, or dry rot for blocking.

What precautions should workers take when moving materials mechanically?

Using mechanical equipment to move and store materials increases the potential for employee injuries. Workers must be aware of both manual handling safety concerns and safe equipment operating techniques. Employees should avoid overloading equipment when moving materials mechanically by letting the weight, size, and shape of the material being moved dictate the type of equipment used. All materials-handling equipment has rated capacities that determine the maximum weight the equipment can safely handle and the conditions under which it can handle that weight. Employers must ensure that the equipment-rated capacity is displayed on each piece of equipment and is not exceeded except for load testing.

Although workers may be knowledgeable about powered equipment, they should take precautions when stacking and storing material. When picking up items with a powered industrial truck, workers must do the following:

- ➢ Center the load on the forks as close to the mast as possible to minimize the potential for the truck tipping or the load falling,
- ➢ Avoid overloading a lift truck because it impairs control and causes tipping over,
- ➢ Do not place extra weight on the rear of a counterbalanced forklift to allow an overload,
- ➢ Adjust the load to the lowest position when traveling,
- ➢ Follow the truck manufacturer's operational requirements, and
- ➢ Pile and cross-tier all stacked loads correctly when possible.

After completion of our site work we are expected to store our tools, equipments and machineries in safe place for the next time. In order to store our materials, machineries and equipments safely we should have to follow the following procedures:

Create a foundation.

Similar to building a house, creating a solid foundation is an essential part of building an efficient storage system in your work van. Always store bigger items on the floor or in lower compartments of your van, and leave room towards the top for smaller items. Air compressors, generators and drain cleaning machines are some examples of large equipment that you should store at a low level. Keeping large equipment on the bottom not only maximizes space, but will also help save your back when lifting heavy items.

Think vertically.

Once you've created your foundation, start stacking items vertically along the interior walls of your van. Sort items based on size and work your way up, putting the smallest parts at the top. Install a pegboard and hooks to hang medium-sized items such as hand tools and power tools. Stackable bins and tool storage containers are an excellent solution for keeping your small repair parts in order. Why stop at the top? Consider hanging poles across the length of your van to suspend lightweight items from the ceiling, like extension cords. Just be sure to leave enough clearance for head room.

Location is key

Consider how often you use the individual pieces of equipment in your work van to determine where to place them. Whether the doors are located on the side or in the back, the space around them should be reserved for your most frequently used items. Think about your average week on the job. Which items do you use once a week? Twice a week? Daily? For those items that you

use all day on the job, such as your tool belt, install a shelf or hang a hook near the door of the van for easy access. Leave the room in the back of the van for the items you use less often.

Don't forget the doors.

The interior side of your van door is another surface you can use to maximize storage. Magnetized stripping is an excellent solution for hanging metal hand tools like hammers, pliers and tape measurers. One more cost-effective storage option for your van doors is to hang fabric or plastic closet organizers with pockets to store your small and lightweight equipment that you use frequently throughout the day.

Give it light.

After you've created the ultimate mobile storage system in your work van, the next step is to incorporate lights. Hang tap-activated lights on the interior side of your van doors to help you see on rainy days or on after-hour service calls. Be sure to hang a lantern or a work light in the back corners of your van to help you find the equipment that you use less often. Choosing a battery-operated work light or lantern with a hook will allow you to move seamlessly from your work van to the jobsite.

Cut the clutter.

Because your work van or truck is your on-the-go workspace, it's simple for the interior to become messy by the time the job is done for the day. Dirt gets tracked in, wrappers and trash from lunch on the road get tossed on the floor, and debris from cutting work material in the bed of the truck coats the interior surfaces. Reducing clutter and keeping the work van tidy will open up the van's space. Store a slim trash can, trash bags, sanitizing wipes and a duster on your work van to keep it clean and clear from clutter.

Now that you know how to create the ultimate storage system in your work van, the last step is to build it and get back on the job.

2.4 Organizing personnel

Organizing personnel is a planned coordination of the interests and motives of community or is a way of making convincing movements and tasks with the peoples living near the project site regarding the activities like:

➢ Movements of different types of machineries and equipments

➢ The way of handling and operation,

➢ Way of production and resource utilization

- ➢ Environmental conditions (air, water and etc. pollutions)
- ➢ Resource management

Regarding the above listed and other work site coordination and work related activities for the success of project that area.

Parties/ neighbors living around the project area are needed to be notified if the activities involve high levels of noise, dust or chemical use. Often the local council requires notices to be sent out in advance of such work.

Personnel may include those obtained from within an enterprise, staff "borrowed" from another enterprise, hired from a contracting firm, or hired for the project from outside the industry.

Every activity that we perform should always base on the communities interest unless and other ways it is not fruit full. The irrigation or any other projects that are running in any areas without notification or interest of the community cannot last long. The community always damages the project, vandalism and thefts of different components may occurs and at the end the project fails so that we are expected to organize personnel before designing and under taking any irrigation project in areas.

Self-Check-2	Written Test

Name: _____   Date: _____

Directions: Answer all the questions listed below.

1. What is the objective organizing resource?(4pts)
2. Describe the major types of resources which can be used by any organization.(4pts)
3. List some of the activities which may need permission of external agencies.(3pts)
4. What is the objective of organizing personnel?(3pts)
5. List and explain some of the machineries and equipments that we are expected to purchase and use in work site coordination.(6pts)

Note: Satisfactory rating - 10 points and above   Unsatisfactory - below 10 points

You can ask your teacher for the copy of the correct answers.

Information Sheet-3	Coordinate and report on activities

Introduction

A report is an account of something (activities) that conveys certain specific information to a specific leader. It is a document which states the result of an investigation on a study that draws a conclusion and makes recommendations. It is submitted to a person or body for whom the work is done.

Coordinate activity is

- ✓ the process of organizing people or groups so that they work together properly and well
- ✓ the harmonious functioning of parts for effective results

Coordinating all resources

Coordinating land and water governance should aim tooptimize the productivity of both land and water in asustainable manner while addressing concerns of equityand social justice at all scales, from local to national andinternational. Two key words are 'coordination' and'governance'.

Coordination reflects the idea that some form ofinterrelationship needs to be established. The desirablelevel of interaction depends on the context, scale, andnature of the challenges being addressed. Coordinationcan be limited to **concerted governance**, which enablesinformation flows between the two sectors for thebenefit of both resources. It could be **interlinkedgovernance**, which goes beyond information sharing toinclude identifying interactions and factoring these intoresource management. A third, approach is **integratedgovernance**, which implies a combined approach so thatthe two resources are part of one single system

Table 3.1 benefited of coordinating resource

Scale	Land and/or water governance issues	Possible benefits of **coordinated** governance
Local/sub-national	✓ Inequities in access to land and/or water ✓ Tenure insecurity of land and/or water ✓ Unsustainable levels of abstraction and use ofland and/or water resources ✓ Land and water degradation ✓ Land- and/or water-related conflicts ✓ Poor implementation and enforcement ofnational land and water laws ✓ Inconsistencies in land and water tenuresystems	✓ Securing access to land rights as a means of ensuring greater equity in access to water ✓ Investing in water infrastructure as a means of securing land rights ✓ Securing land rights as an incentive for sustainable water conservation and for improved land productivity ✓ Securing land and water rights for women ✓ Factoring water access rights in to land use plans, as means of preventing or resolving resource use conflicts (e.g. between farmers, pastoralists and fishers) ✓ Coherency in local/community-based land ✓ use and water management plans

3.2. Personnel are directed in activities for each period of work.

The working patterns of agency workers can be irregular. The Regulations therefore provide for a number of circumstances in which breaks do not prevent agency workers from completing the qualifying period. These provisions can best be explained by thinking of the qualifying period as a clock which runs from 0 to 12. Sometimes a gap between assignments – or a move to a new assignment - will mean that the clock is reset to 0 and must start again. In other circumstances a break will merely 'pause' the clock which will then continue to tick when the agency worker returns. In some limited circumstances, the clock will continue to tick even if the agency worker is not working on an assignment.

   ➢ There are seven essentials for [effective management](#) and delegation:
   1. Pick the right person. Picking the wrong person for a key task is a major reason for failure.
   2. Match the requirements of the job to the abilities of the person. Be sure that the person you delegate the task to is capable of doing the job.
   3. Delegate effectively to the right person. This frees you to do more things of higher value. The more of your essential tasks that you can teach and delegate to others, the greater the time you will have to do the things that only you can do.
   4. Delegate smaller tasks to newer staff to build their confidence and competence.
   5. Delegate the entire job. One hundred percent responsibility for a task is a major performance motivator. The more often you assign responsibilities to the right people, the more competent they become.
   6. Delegate clear outcomes. Make them measurable. If you can't measure it, you can't manage it. Explain what is to be done, how you think it should be done, and the reasons for doing this job in the first place.
   7. Delegate with participation and discussion. Invite questions and be open to suggestions. There is a direct relationship between how much people are invited to talk about the job and how much they understand it, accept it, and become committed to it. You need to delegate in such a way that people walk away feeling, ''this is my job; I own it.''

Delegate authority over the resources staff will need to fulfill the responsibility. Be clear about the time they have, the money they can spend, and the people they can call on to help them to do the job.

   ➢ **Reasons for the qualifying clock to reset to zero;**

- ✓ Most commonly it will be because an agency worker begins a new assignment with a new hirer
- ✓ Where an agency worker remains with the same hirer but is no longer in the same role. The circumstances in which an agency worker is regarded as no longer working in the same role are considered below
- ✓ If there is a break between assignments with the same hirer of more than 6 weeks (which is not one which 'pauses' the clock or during which it continues to 'tick')
  - ➢ **Types of break that will cause the qualifying clock to 'pause';**
- ✓ A break for any reason where the break is no more than six calendar weeks and the agency worker returns to the same role with the same hirer
- ✓ A break of up to 28 weeks because the agency worker is incapable of work because of sickness or injury
- ✓ Any break which is for the purpose of taking leave to which the agency worker is entitled, including annual leave
- ✓ A break up to 28 calendar weeks to allow the agency worker to perform jury service
- ✓ A break caused by a regular and planned shutdown of the workplace by the hirer (for example at Christmas)
- ✓ A break caused by a **strike, lock out or other industrial action** at the hirer's establishment
  - ➢ **Breaks where the clock continues to tick**
  - ✓ Breaks due to pregnancy, childbirth or maternity which take place during pregnancy and up to 26 weeks after childbirth.
  - ✓ Any breaks due to the worker taking maternity leave, adoption leave or paternity leave.

In each of these cases the clock will continue to tick for the originally intended duration of the assignment, or the likely duration of the assignment (whichever is longer).

3.3. Documenting and monitoring personal activities

Documentation of work site activity may allow you to determine if the work is on track, provide progress reports to supervisors, and plan for delivery and storage of materials and hiring of equipment to minimize costs and time wasting for the enterprise.

The documentation of your processing activities must be in writing; this can be in paper or electronic form. Generally, most organizations will benefit from maintaining their documentation electronically so they can easily add to, remove, and amend it as necessary. Paper documentation may be adequate for very small organizations whose processing activities rarely change.

However you choose to document your organization's processing activities, it is important that you do it in a granular and meaningful way. For instance, you may have several separate retention periods, each specifically relating to different categories of personal data. Equally it is likely that the organizations you share personal data with differ depending on the type of people you hold information on and your purposes for processing the data. The record of your processing activities needs to reflect these differences.

3.4. Contingency situations are recognized and corrective actions taken.

Contingency situations may include the delay in delivery and/or breakdowns with equipment and machinery, poor weather conditions, poor quality materials and unforeseen soil problems. A coordinator of work site activities may need to be prepared for such situations and provide other work on the project until the problem is fixed, provide other work away from the site, or delay the project if possible.

Implementation of corrective and preventive actions is the path towards improvement and effectiveness of Quality Management Systems. Corrective actions is nothing but the action/actions based on the problem identification. The problem or a non-conformance can be identified internally through staff suggestions, management reviews, document reviews or internal audits. External leads to finding the root cause of the problem can include: Customer complaints/suggestions; customer rejections; non-conformities raised in customer/third-party audits; recommendations by auditors.

3.4.1 Interim corrective action

Emergency sites and some high-priority sites require immediate corrective action that is implemented before the site investigation and risk evaluation are completed and, therefore, is managed as an interim corrective action. An interim corrective action is typically initiated as soon as the MPCA is notified and may be approved and implemented under the MPCA's Emergency Response Program before the site is transferred to the PRP. Interim corrective actions are managed on a case-by-case basis, with

implementation reporting requirements determined accordingly. See the *Petroleum Release Reporting and Response Guide* for additional information regarding the need for immediate corrective action.

Typical examples of interim corrective actions include manual or passive light non-aqueous phase liquid (LNAPL) recovery, bottled water supply, point-of-use or point-of-entry potable water treatment, building ventilation, sub-slab depressurization, and other active or passive interceptor or barrier methods. An interim corrective action is driven by site-specific circumstances and may include more aggressive actions such as remediation systems and soil excavation.

Interim corrective action may only address an immediate and obvious risk and may not result in permanent or comprehensive risk reduction. All risks must be addressed and permanent and comprehensive risk reduction achieved before site closure can be granted. If the subsequent site investigation and risk evaluation indicate that additional or more aggressive corrective action is necessary, a final corrective action is required. If an ongoing interim corrective action can be considered a final corrective action, submit the *Conceptual Corrective Action Design Report (CCAD)* to document this approach and to obtain MPCA approval. If an interim corrective action is proposed to continue during the implementation phase of a final corrective action (i.e., after CAD approval), it will be considered part of the final corrective action.

3.4.2 Final corrective action

A final corrective action is proposed upon completion of the site investigation and risk evaluation and addresses all high risks. Depending on the nature of the proposed corrective action, a final corrective action will be managed as either a simple corrective action or a complex corrective action. In general, a final corrective action focuses on one primary corrective action approach. There may be times, however, when complementary actions are taken in addition to the primary approach to achieve permanent risk reduction.

A. **Simple corrective action**

A simple corrective action is intended to eliminate high risks in a straightforward manner, usually resulting in site closure. Examples of simple corrective actions include contaminated surface soil excavation and treatment, water supply well replacement with municipal water connection, and manual or passive LNAPL recovery. A simple corrective action only requires submittal of a CCAD. Provide sufficient information in the CCAD to allow for MPCA approval. A simple corrective action usually involves one corrective action, but multiple corrective actions can be proposed provided they do not meet the criteria of a complex corrective action.

B. **Complex corrective action**

A complex corrective action requires collecting and evaluating more detailed information prior to preparing a detailed corrective action design report (DCAD). Examples of complex corrective actions include remediation systems, stimulated biodegradation, in situ chemical oxidation injection, subsurface LNAPL body excavation, and combined approaches. Because of the increased complexity in design and implementation of a complex corrective action, technical and economic feasibility are carefully considered during the design phase. The following sequential design stages will generally precede MPCA approval of complex corrective actions:

1. Conceptual corrective action design

2. Focused investigation

3. Pilot test

4. Detailed corrective action design

For a complex corrective action, the design phase begins after CCAD review. The design phase ends and the implementation phase begins upon CAD approval, which typically will be granted after DCAD review. The need for a focused investigation, pilot test, or other limited field-testing will be determined and requested on a site-specific basis.

3.4.3 Corrective action implementation

A. **General implementation requirements**

Typically, the MPCA will approve a simple corrective action after review of a CCAD. A complex corrective action will usually be approved only after review of a DCAD. The CAD can be implemented upon MPCA approval. Following implementation, submit a report documenting the results, conclusions, and recommendations. The report format and submittal schedule will depend on the type of corrective action approved.

B. **Remediation systems**

The implementation phase for remediation systems consists of the following sequential stages:

1. Installation
2. Operation
3. Post-shutdown monitoring
4. Dismantlement

Following completion of system startup, submit the *Remediation System Operation Monitoring Report (RSOM)* within 30 days to notify the MPCA of system installation and startup. Submit subsequent RSOMs on a quarterly basis until the system is shut down and all operation monitoring results are reported. A successful system should achieve its corrective action objectives and be shut down within two years of system startup. Systems that do not accomplish their objectives within two years may be subjected toshut down. System performance will be evaluated on system efficiency and system effectiveness, which includes evidence of active project management by the technical lead.

3.5. Project report

A project report may include the project name, authors name and date, project description, progress of activities, major issues, OHS issues, expenditure and any future activities that may need to be planned.

3.5.1 Project reporting

All Interring programs require progress reporting during project implementation. The aim of the

reporting process is to establish whether project objectives have been achieved, what resources havebeen expended, what problems have been encountered, and whether the project is expected to becompleted on time and within budget. If performance is sufficient, the project will receive payment fromthe program for costs incurred, paid and reported.The most common practice is that program have one progress report form which includes bothfinancial and content related information and has to be supplemented by required attachments. Inadditional, program often have a separate final report form which is submitted at the end of theproject. The frequency of the reports submitted is decided by the program, and this varies fromprogram to program.

A. Reporting process

The process begins on the partner level, where each project partner needs to report to the controller,who certifies the expenditure declared. Activities, outputs and costs approved by the controller aresummarized and aggregated in the project progress report prepared by the lead partner, who sends it tothe Joint Secretariat for approval. Payments are carried out by the Certifying Authority to the leadpartner only if the expenditures have actually incurred, are in line with the subsidy contract, and werepaid by the project partners. It is the responsibility of the lead partner that the subsidy received from theprogram is transferred to project partners in full and without delay. The procedures for the transfer offunds are to be defined in the project partnership agreement.
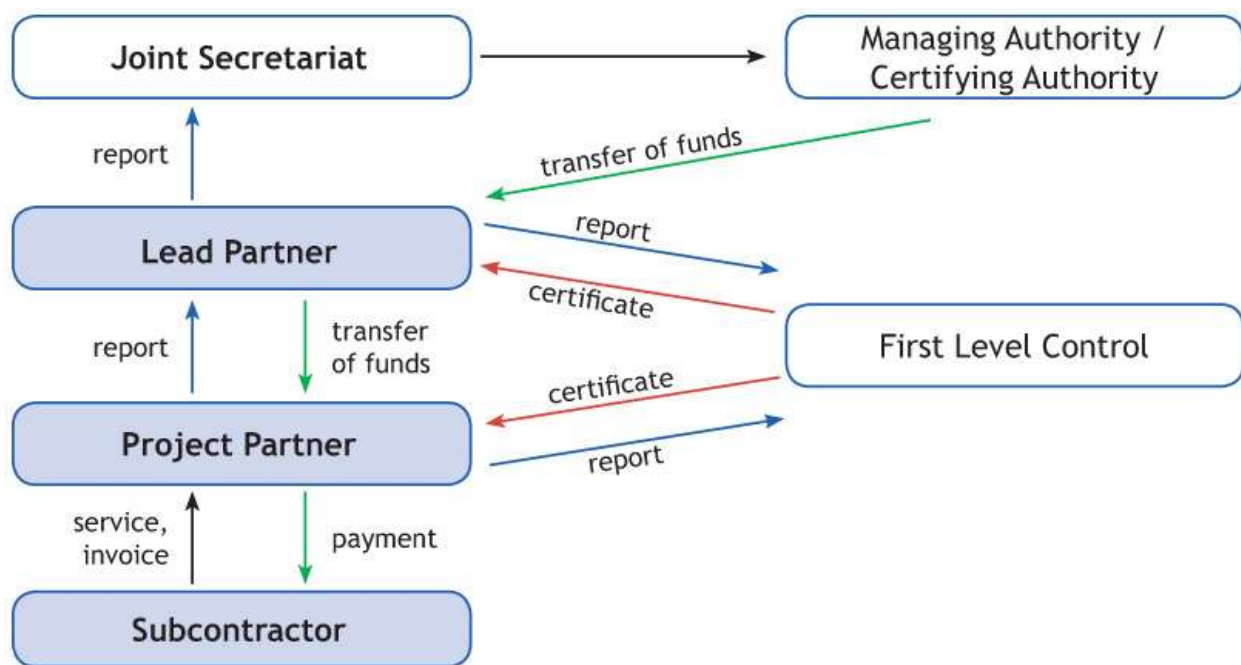
Figure3.1: Reporting process

The figure above indicates that there are two main information streams in the reporting process: From thepartners to the lead partner, and from the lead partner to program management. In this process thelead partner is the central figure with an important coordination and mediation role. An efficient leadpartner should allow for a smooth information flow from the program to the partner level, and viceversa. In terms of reporting the lead partner is seen as the practical link between the partnership andprogram management.

B. Reporting requirements

In order to carry out effective project monitoring, programs usually require projects to submit theprogress report at the agreed deadlines throughout project implementation. The report includesinformation about activities carried out, outputs delivered and expenditure incurred. The informationprovided in the report is compared to the latest version of the application form (i.e., the application formapproved, including all approved modifications) to establish if the project is delivering according to theplan.

The financial part of the report provides information on the amount spent since the last report, splitaccording to the same budget lines as those in the application. Each project partner will also have topresent a certificate signed by the approved (designated) controller, stating that he/she has checked

thespending, and that all of the amounts included are correct and in accordance with the rules. Finally, thereis a request for the program to transfer the amount claimed to the lead partner.

Many programs regard six-monthly reporting as adequate to obtain a good indication on projectprogress (though some programs ask for reports every 3 months). Projects prefer 6-monthly reportingbecause of the administrative work involved, but on project level lead partners should establish a systemwhich provides more frequent and systematic basic updates on the progress of each partner.Most projects put reporting deadlines in the project partnership agreement and make clear that the leadpartner will not be responsible for any project partner losses caused by partners' delays. Programs arealso toughening up on requirements and may, for example, suspend projects and/or project partners whofail to report for a number of periods. In other cases, it may be acceptable to submit a report without thedelayed partners – who will then be allowed to claim for a double period with the next report.

Uniformity of reporting both to the program (by the lead partner) and to the lead partner (by thepartners) requires harmonization of procedures on all levels. Uniformity is important because leadpartners need to be able to compare the input of their partners, and programs need to be able tocompare different projects. This means that, as far as it is possible, all levels need to provide the sameinformation in the same format.

The basic principle is that programs provide reporting templates (checklists or other reporting tools),which are distributed well in advance to the lead partners (they may be also be available on programwebsites), who should pass them on to the partners. These set out how information should be provided.Progress and financial reporting require different templates but are prepared at the same time for thesame reporting periods, and submitted together to the program.

Self-Check 1	Written Test

Name: _____   Date: _____

Directions: Answer all the questions listed below.

1. What are seven effective management and delegation methods?(7)
2. How should we document our activities?(5)
3. What is contingency plan and corrective action?(5)
4. Discuss about project reporting process?(5)

Note: Satisfactory rating - 11 points and above   Unsatisfactory - below 11 points

You can ask your teacher for the copy of the correct answers.

1. Further work. (A chapter describing possible ways in which your work could be continued or developed. Be imaginative but realistic.)
2. Conclusions. (This is similar to the abstract. The difference is that you should assume here that the reader of the conclusions has read the rest of the report.)
3. References and appendices.