

## Topics under DFS study (checklist)

1. Cover Page
2. Executive Summary
3. Table of Content
4. List of Table and list of figure
5. Abbreviation
6. Salient Features of the project
  - a. Name of the Project
  - b. Location
    - B.1 Municipality
    - B.2 District
    - B.3 Province
    - B.4 Accessibility
    - B.5 Geographic Features of lifting Point
      - Latitude
      - Longitude
  - c. Command Area
  - d. Hydrology
    - Name of Source
    - Water Availability
  - e. Pumping System
    - Head Calculation
    - Crop water requirement
    - Calculation of Solar Array
    - Sizing and selection of solar pump
    - Delivery Pipe ( Pipe type ,length and diameter calculation )
    - Distribution system
    - Reservoir tank (if any)
  - f. Cropping Pattern
  - g. Project cost

# Topics on Table of Content

## 1. INTRODUCTION

### 1.1 BACKGROUND

### 1.2 OBJECTIVE AND SCOPE OF WORK

### 1.3 PROJECT AREA

#### 1.3.1 LOCATION AND BACKGROUND

#### 1.3.2 ACCESSIBILITY

#### 1.3.3 COMMAND AREA

#### 1.3.4 EXESTING IRRIGATION INFRASTRUCTURE

## 2. RESOURCES ASSESSMENT

## 3. SURVEY AND INVESTIGATION

## 4. AGRICULTURE SYSTEM

### 4.1 CROPS AND CROPPING PATTERN, INPUTS AND YIELD

### 4.2 CROP WATER REQUIREMENT

## 5. SYSTEM DESIGN

### 5.1 HEAD CALULATION

### 5.2 PUMPING WELL/BORE HOLE DESIGN

### 5.3 DESIGN OF PUMP AND CONTROLLER

### 5.4 DESIGN OF SOLAR ARRAY, MOUNTING STRUCTURE, CABLES AND ELECTROMECHANICAL PROTECTION

### 5.5 DESIGN OF DELIVERY PIPE

### 5.6 DESIGN OF OTHER STRUCTURE

## 6. PROJECT COST AND ECONOMIC ANALYSIS

## 7. CONCLUSION AND RECOMMENDATION

### ANNEXES

- **Citizenship, Land ownership documents**
- **Check list and questionnaires for site survey**
- **Snapshots**