

WATER RESOURCE ENGINEERING - I



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UNIT I – INTRODUCTION TO IRRIGATION



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LEARNING GOALS

- ❖ DEFINATION OF IRRIGATION
- ❖ NEED/NECESSITY OF IRRIGATION
- ❖ SCOPE OF IRRIGATION SYSTEM
- ❖ BENEFITS OF IRRIGATION
- ❖ ILL-EFFECTS OF IRRIGATION



DEFINATION OF IRRIGATION

INTRODUCTION

- *Irrigation is the artificial application of water to the land or soil.*
- *It is used to assist in the growing of agricultural crops, maintenance of landscapes, and revegetation of disturbed soils in dry areas and during periods of inadequate rainfall.*
- *Irrigation is often studied together with drainage, which is the natural or artificial removal of surface and sub-surface water from a given area.*

NEED/NECESSITY OF IRRIGATION

NECESSITY OF IRRIGATION

- *Insufficient rainfall*
- *Uneven distribution of rainfall*
- *Improvement of perennial crop*
- *Development of agriculture in desert area*

SCOPE OF IRRIGATION SYSTEM



BENEFITS OF IRRIGATION

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- *Increase in crop yield*
- *Protection from famine*
- *Cultivation of superior crops*
- *Elimination of mixed cropping*
- *Economic development*
- *Hydro power generation*
- *Domestic and industrial water supply*

ILL EFFECTS OF IRRIGATION

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- *Rising of water table*
- *Formation of marshy land*
- *Dampness in weather*
- *Loss of valuable lands*