DECIDING ON SOLAR POWERED IRRIGATION SYSTEMS

LOCAL CONDITIONS & CULTIVATION

- SLOPE
- SOIL TYPE
- EFFECTIVE RAINFALL
- GROWING STAGE
- EVAPOTRANSPIRATION
- CROPPING PATTERNS

TYPE OF IRRIGATION & WATER RESOURCES

- SOLAR IRRADIATION
- GROUNDWATER LEVEL
- IRRIGATION SYSTEM TYPES
  (sprinkler, drip, surface, basin, furrow, border)

- IRRIGATION SCHEDULING

- PUMPING SYSTEM SIZE
  - PUMPING SYSTEM CONFIGURATION
    (pumping head, pipeline pressure, storage tank, etc.)

- IRRIGATION WATER REQUIREMENTS

- CROP WATER REQUIREMENTS

ECONOMIC VIABILITY

- COST OF AGRICULTURAL WATER
- MARKET INTEREST RATE
- DISCOUNT RATE
- EXPECTED YIELDS
- MARKET ACCESS
- MARKET PRICES

- SPIS INVESTMENT COST & RECURRENT COSTS

- AVAILABILITY & AFFORDABILITY of irrigation services

- IRIGATION SYSTEM CONFIGURATION
  (conjunctive use, filtration, fertigation, biological treatment, desalination)

- IS THE SPIS VIABLE?

- IS THE WATER SUPPLY SECURE & SUSTAINABLE?

- GET INFORMED – Module

- GET STARTED!
  (contact supplier, finance provider, etc.)

TIP:
Use the DESIGN – Site Data Collection Tool to document and guide your decision!

RIGHT TO USE
(customary right, license, etc.)

- Changes in GROUNDWATER LEVEL

- SAFEGUARD WATER – Water Resource Management Checklist

- SAFEGUARD WATER – Module

- SAFEGUARD WATER – Water Requirement Tool

- SAFEGUARD WATER – Module

- IRRIGATE – Soil Tool

- IRRIGATE – Soil Tool

- DESIGN – Pump Sizing Tool

- DESIGN – Module

- DESIGN – Module

- DESIGN – Site Data Collection Tool

- DESIGN – SPIS Suitability Checklist

- DESIGN – Module

- DESIGN – Site Data Collection Tool

- DESIGN – Module

- INVEST – Payback Tool

- INVEST – Module

- INVEST – Farm Analysis Tool

- INVEST – Module

- INVEST – Module

- INVEST – Module

- INVEST – Module

- INVEST – Payback Tool

- INVEST – Module

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