Problem Definition

- The need to modernize irrigation practice.
- Integration of irrigation practice into digital world
- To reduce cost of labor, energy, water and mgmt.
- To meet the Millennium Development Goal (MDG)
- To enhance farmers’ Climate Change adaptation
- To sustain Africa’s ever-increasing population

Objectives of the initiative include to:

- develop a software for drip irrigation design in a digital scheme
- gather the appropriate parameters for drip irrigation design.
- evaluate the performance of the developed software
- Compare the output of the software with manual computation and the output of any similar software(s).

The Required Design Parameters

<table>
<thead>
<tr>
<th>Soil</th>
<th>Climatic parameters,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop</td>
<td>hydrologic and hydraulics</td>
</tr>
<tr>
<td>Pump</td>
<td></td>
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</tbody>
</table>

Conclusion and Recommendations

- The developed software presented friendly users interface to obtain appropriate design for implementing a drip irrigation
- This software should be made available to the farmers in order to assist them to improve on their productivity and reduce the drudgery associated with the conventional irrigation practice

Data input window constraints user to drop-down list to select from so as to eliminate design errors.

It allows for re-entry of individual data and rest of the window to re-input the whole parameters

Outcome of the Irrigation Field layout based on the Design Report