Comment déterminer le volume d'eau à désinfecter?

Pour un puits circulaire $V = \frac{\pi \times D^2}{4} \times h$

V = volume d'eau à désinfecter.
D = diamètre du puits.
h = hauteur de la colonne d'eau.

Pour une citerne ou un château $V = L \times l \times h$

V = volume d'eau à désinfecter.
L = longueur de la citerne / château.
l = largeur de la citerne / château.
h = hauteur de la colonne d'eau.

Pour mesurer la colonne d'eau, on utilise une sonde lestée / cordé. Dans un premier temps, on introduit la sonde dans le puits ou citerne. Lorsqu'elle touche la surface de l'eau, on repère le niveau sur le ruban de la sonde. Ce niveau constitue la hauteur de la colonne vide. Dans un deuxième temps, on continue l'émergence de la sonde dans l'eau jusqu'à ce qu'elle touche le fond du puits ; on repère alors le niveau sur le ruban. Ce niveau constitue la hauteur de la colonne d'eau à désinfecter. Elle est égale à la hauteur totale moins la hauteur de la colonne vide.

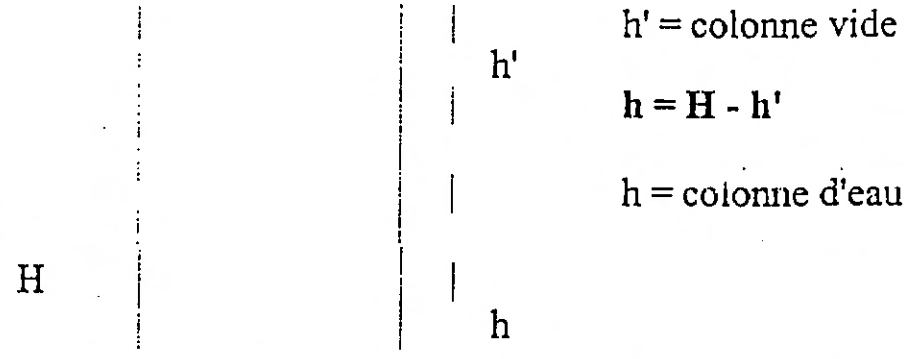

Figure 8. Pairwise Ranking Matrix

PROBLEMS	CLIMATE	PESTS	WEEDS	COST OF INPUTS	LACK OF LAND	LACK OF IRRIG.	LACK OF TECH.K.
CLIMATE		CLIMATE	CLIMATE	COST OF INPUTS	CLIMATE	CLIMATE	CLIMATE
PESTS			PESTS	COST OF INPUTS	LACK OF LAND	LACK OF IRRIG.	PESTS
WEEDS				COST OF INPUTS	LACK OF LAND	LACK OF IRRIG.	WEEDS
COST OF INPUTS					COST OF INPUTS	COST OF INPUTS	COST OF INPUTS
LACK OF LAND						LACK OF LAND	LACK OF LAND
LACK OF IRRIGATION							LACK OF IRRIG.
LACK OF TECH. KNOWHOW							

PROBLEMS	NUMBER OF TIMES PREFERRED	RANK
CLIMATE	5	2
PESTS	2	5
WEEDS	1	6
COST OF INPUTS	6	1
LACK OF LAND	4	3
LACK OF IRRIGATION	3	4
LACK OF TECHNICAL KNOWLEDGE	0	7

PAIR-WISE RANKING

To prepare a pair-wise ranking of opportunities (or problems) use the sample ranking table as a model. Prepare separate exercises for the set of options for the most important 3 to 5 problems. The options for each problem are listed on the top and left side of the matrix. Each open square represents a paired comparison of the points listed at the top and extreme left. For each comparison, ask the group which option is more likely and why. Record the most likely option in the square and develop a list of reasons for the selections. When the chart is completed, add up the number of times each item was identified as more important than the rest, and arrange them in appropriate order. Repeat the exercise for the other major problems and options.

Figure 9. Mbusyani Options Assessment Chart

BEST BET OR INNOVATION	PRODUCTIVITY	STABILITY	SUSTAINABILITY	EQUITABILITY	TIME TO BENEFIT	COST	TECHNICAL/SOCIAL FEASIBILITY	PRIORITY
BOREHOLES	?	0	−	0	3	3	3	6
ROOF CATCHMENT	+	+	++	+	1	1	2	3
NATURAL SPRINGS	+	+	+	++	1	2	2	
REHABILITATE DAMS	++	+	++	++	1	2	2	
SHALLOW WELLS	+	+	++	0	2	1	2	
NEW SURFACE DAMS	++	+	++	++	1	2	2	

KEY

?	UNKNOWN
−	NEGATIVE IMPACT
0	NO IMPACT
+	POSITIVE IMPACT
++	VERY POSITIVE IMPACT

	TIME	COST	FEASIBILITY
3	LONG	HIGH	LOW
2	MEDIUM	MEDIUM	MEDIUM
1	SHORT	LOW	HIGH

Figure 10. Ranking By Voting

PRIORITY RANKING BY VOTING (NUMBERS ARE FOR ILLUSTRATION ONLY)

PROBLEMS	NUMBER OF PEASANTS' RESPONSES				
	MOST IMPORTANT	NEXT MOST IMPORTANT	THIRD	FOURTH	TOTAL RESPONSE
CLIMATE (DROUGHT)	10	7	5	3	25
PESTS	7	7	3	1	18
WEEDS	4	3	2	0	9
COST OF INPUTS	2	4	1	0	7
LACK OF LAND/ POOR LAND	2	2	1	0	5
LACK OF IRRIGATION	2	3	2	0	7
LACK OF TECHNICAL KNOWLEDGE	1	1	0	0	2

VOTING/BUYING

Finally, the group may suspend ranking until after discussion of all the options and then determine the most important by voting or "buying" the best options. The voting can be an open hand-raising exercise or a confidential balloting. A "buying" game gives 3 to 5 stones or other tokens to each participant, and asks them to "purchase" the most important of the long list of options. By putting their stones in an envelope or box representing a certain project's bank account, an individual decides either to buy several different activities, or to put all his/her tokens toward one option. As in the case with voting, the buying can be conducted in private or in the presence of the other participants.