

Preamble: As we get into Food Security programming in our ADPs (Area Development Programs), our hope is that we will not have to go in once again for a large scale survey of the ADP area all over again. There is therefore the urgent need to find a method of carrying out Rapid information gathering for the purpose of profiling the needs in the area related to Food security. It is for this purpose that we have chosen the ten seed technique as one of the effective tools for this. The ten seed technique is a modified Participatory Learning and Action (PLA) tool. It is useful in gathering qualitative information on various issues, especially regarding perception and the way people see themselves in relation to others. The use of the ten seed technique has been made here applying the AAUA (Access-Availability-Utilization-Asset creation) framework used in Food security programming. The steps that are involved in doing this have been detailed and the method of identifying which of these is critical has also been explained. By using this it is hoped that the ADP staff will be able to find a very practical method of carrying out a critical situation analysis in their area for appropriate programs that will have an impact in the area.

Background: The author was able to identify and develop this technique after a lot of searching for a simple as well as comprehensive methodology for qualitative information gathering. The search was for a tool that could also serve as a visual to be the focus around which to have a discussion. Thus with trial ,experimentation and modification it was possible to come up with the most appropriate number of seeds which is Ten, and thus the name, “the ten seed technique”. The technique has been tested widely in a number of countries mostly in Asia and for analysis of information about many and varied subjects related to HIV/AIDS , MED-Micro Enterprise Development, CEDC- Children in Especially difficult Circumstances, Health, Education, Agriculture, Animal Husbandry, Livelihood Analysis, Expenditure Analysis etcetera.. The Philosophy behind the methodology is as with many of the PRA/PLA tools, to have a technique that allows for the poor and illiterate to participate as equal partners. As mentioned earlier, the seeds serve as a visual which can be handled, touched and moved around ; thus making it the focus around which discussions can take place .There are several advantages with this:-

- 1) **The seeds can be “interviewed”.** Dr. Robert Chambers , several years ago, made reference to “interviewing” the diagram or the visual created for representing the information. This enables the community to avoid direct eye contact with the interviewing outsiders, while at the same time displaying interested attention. Direct eye contact is often threatening to communities and makes them feel awkward, thus affecting the spontaneity of the process. The seeds thus provide a neutral non-threatening focus.
- 2) **The seeds can be touched, felt and moved around.** This gives the community the chance to ‘control’ the process and the information, an effective way of again doing what Dr. Robert Chambers calls ,”handing over the stick”.
- 3) **The seeds act as a very powerful visual, which is a pre-requisite to stimulating Right brain function.** As is well known and recognized, the left brain is developed through the formal education process, and when operational tends to provide perceptions that are determined by the formal process. On the other hand , the right brain, which is the more creative side, has wider ranges of perception which draw on both the conscious and sub-conscious mind. Thus sometimes when the information is drawn out, even the person providing the information may be surprised with the observation. This is one of the most powerful results of using the seeds. Though initially used for enabling the illiterate to participate, the results from its usage were spectacular. It enabled mixed groups of literate and illiterates to participate equally. Further, even among the literate of a higher level of education , “the ten seed technique” turned out to be a powerful tool as it stimulates the right

brain function so participants are able to give information that is drawn from perceptions wider than the formal education process that they are a part of.

- 4) **The specific number of seeds makes comparisons of segments much easier.** The choice of number of seeds representing a segment of information has to be made very carefully, thus interviewees are compelled to think and discuss very carefully before finalizing the distribution of seeds. For example in a group where we are analyzing the expenditure patterns of an average family; the group may place 4 seeds to show expenditure on food, 2 seeds for education of children, 2 for ceremonies and functions and one seed each for medical expenses and household repair. The seeds are distributed into five segments. Since each seed is representative of 10% of the expenses, there is an automatic exclusion of some of the smaller expenses, or clumping together with one of the larger expenses. At the same time, increasing the number of seeds in one segment, automatically calls for it to be reduced from one of the other segments, causing imbalance. Thus each segment balances the other; exerting pressure on it and each other. This serves as the balance or 'control' within the segment itself. As much as is possible, attempts are made not to split the seeds so that careful thinking and 'weighing' for distribution is required. If in the rarest of cases, splitting is essential, then only should it be permitted.

Beginning the exercise:

In order to start using the exercise, first select a group of people of different ages and different sexes. The method of selection is called 'Opportunity sample', wherein we look for people in the community as available for discussion. It goes without saying that the visit to the village should be made at an appropriate time so that people who are aware about the village are available. The group of villagers should be at least 8- 10 or bigger. Then using basic community interaction skills, rapport is established with the group and the purpose of the exercise is explained to them. The group is then shown the ten seeds, explaining that it is a PLA exercise called the ten seed technique and that it will in the current exercise be used to gather some rapid information on Food Security. The sheet of paper on which the seeds will be kept should have a sharp contrast to the color of the seeds. The seeds are then placed on the paper and the group is asked to consider that the ten seeds represent their whole village. Two boxes are now drawn on the paper. The first one is for those in the village who have Food Security and the second one is for those who do not have Food Security. For instance in the example given here the box representing those people with Food Security received 4 seeds while those with inadequate Food Security received 6 seeds. While placing the seeds the community here is essentially identifying those that are able to have Food security for the whole year (Food Secure) without having to go through major struggles anytime during the year. They have adequate cultivation, animal raising or some business in place that is part of their strategy for survival for the whole year. The Food insecure on the other hand are those that have to struggle during some parts of the year for varying lengths of time, and have to adopt some varied, desperate alternative strategy like selling Labor or liquidating some asset for helping making ends meet during the difficult months. While using the CD ROM program that is to be used along with this book, the following diagram can be double clicked on, and the seeds at the bottom of the box can be moved into the appropriate box representing the Food Secure and the Food Insecure.

The picture below is an example of the ten seed technique being used in one of the target villages of the Kampong Speu Operations.



In the example below from Thnol village, under Samakey Meanchey ADP, this is how the preliminary information looked.

Food Security Programming:

Use of Ten seed technique

Situation Analysis:Thnol village Samakey meanchey ADP

Step-1: Identify the Food Secure and Food Insecure

Food Security status of the Family	Number of seeds	Remarks
Have enough food for the whole year		Food Secure
Don't Have enough food for the whole year		Food Insecure

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa,Sri lanka/Ravi Jayakaran notes/WVI




After the preliminary Food Security status is established as above, we then look at the second box, of those without adequate Food Security and ask the group to further classify these according to period for which they have struggles. The outcome of this can be seen in the diagram below:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-2: Further divide the Food insecure according to length of insecurity

Further classification of the Food Insecure (local name)	Number of Seeds	Number of Months for which there is a struggle
<i>"Mathium"</i>		for about 2 months a year
<i>"Krao"</i>		for about 3-4 months a year
<i>"Tual Krao"</i>		for the whole year (live hand to mouth)



Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa,Sri lanka/Ravi Jayakaran notes/WVI





The 'visual' created as a result of this distribution is now discussed with the group and they are asked to describe each of the groups and also discuss the local name for that particular group. The diagram below shows the various groups determined by this process and the names by which the local community refers to them.

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-3: Summarise all categories and discuss them for community's familiarity and Perspective

Number of Seeds	Food Security Status	Local name	Profile of representative families
	Have enough (Prosperity line)	"Krup Kroan"	Own or big house with tiled roof have small animals Never take loans May have 2-3 acres Plough 0.5 cart Have 1 pair or more Have extra income Have the field more than one Have more Have few children (2-3) Have vegetable garden
	Poverty Line (just above)	"Mathium"	Problems Have small animals if pair only Have smaller than Krup Kroan Take loan - children Have field more than 1 hectare Have 1-2 children No field or vegetable garden May have them care No labour work in difficult season
	Poverty Line (just below)	"Krao"	1 hatched house 1 or 2 small animals More children (more than 5-6) Small land (< than 0.5 hectares) Sell Labour at Low cost Take loan often
	Charity Line	"Tual Kro"	1 hatched house in very poor condition Close with small wooden pole No Chops No land or very small land (< than 0.2 hectares) No cash Sell labour - very cheap go for them village to work many diseases take money at high interest take loan and pay with labour (in not seasonal, they all work for cash)

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwa, Sri Lanka/Ravi Jayakaran notes/WV1

This "visual" is also now discussed with the group to ensure that everyone has a clear understanding of the conclusions that have been arrived at.

One of the participants is now asked to present the observations to the larger group so that now the whole group has a common understanding of what the discussions are about. To and fro discussions are held and information is 'Triangulated' (cross checked and corrected if necessary).





For the understanding of the outsiders the appropriate term such as Prosperity line, Poverty Line (Just above & just below) and Charity line are added for a better understanding of the determinants of the coping strategies. Now using the local name of the 4 groups that were determined, each aspect of the AAUA (Availability, Access, Utilization and Asset creation capability) Framework are determined as below:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-4: estimate if food is available within the village or close to it to all groups

Food Security Status	Availability of food	Remarks
"Krup Kroan" (Prosperity Line)		Food is available in the village or close to it, equally to all the groups
"Mathium" (just Above Poverty Line)		Food is available in the village or close to it, equally to all the groups
"Krao" (just below Poverty Line)		Food is available in the village or close to it, equally to all the groups
"Tual Krao" (Charity Line)		Food is available in the village or close to it, equally to all the groups

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa,Sri lanka/Ravi Jayakaran notes/WVI





As can be seen from the diagram above, the availability of Food within the village or from reasonably close to the village are not a critical issue. However , Access to that Food is different because of the different purchasing capacities of the groups as seen below:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-5: Estimation of the access that different groups have to food because of their purchasing capacity

Food Security Status	Access to Food	Remarks
"Krup Kroan"		This group has a greater access to food because of greater purchasing capacity
"Mathium"		This group has medium access to food because of Medium purchasing capacity
"Krao"		The poorer people have a lesser access to food because of lesser purchasing capacity
"Tual Krao"		The poorest people have the least access to food because of their limited purchasing capacity

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa,Sri lanka/Ravi Jayakaran notes/WVI

In the next example again from the same village the Utilization of food within the house hold was examined especially with reference to how the food is distributed according to gender within the household. This is then determined for each of the 4 type of groups to see if Food Security status plays a significant role or if it is a cultural issue. In the diagram below this can be clearly seen:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-6: Estimation of how the food is used within the household

Food Security Status	Utilization within the household (Adult Males)	Utilization within the household (Adult Females)	Utilization within the household (Young Males)	Utilization within the household (Young Females)
"Krup Kroan"				
"Mathium"				
"Krao"				
"Tual Krao"				

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa, Sri Lanka/Ravi Jayakaran notes/WVI

It is the quest of every household to try and save up for a rainy day, generating surplus in time of plenty to convert it into as Asset of some sort, that can in times of crisis be liquidated and utilized for providing Food Security. The diagram below shows the Asset creating capability of each group and the type of asset they create either with surplus, or borrowing during better times:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-7: Estimation of the Asset creation capacity of each group

Food Security Status	Ability to create Assets from surplus or borrowing	Type of Asset created
"Krup Kroan"		Moto (new) TV (color) Rice Mill Machine Small generator Land 2nd hand pick up House improvement Land speaker purchase Gold
"Mathium"		Land House improvement 2nd hand Moto TV (B&W) Oven Some Gold
"Krao"		Bicycle House repair Buy food grains Buy cow/piglet Buy silver jewelry
"Tual Krao"		Clothes (2nd hand) House repair piglet/poultry

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa, Sri Lanka/Ravi Jayakaran notes/WVI





The diagram below shows the sequence in which the assets are liquidated during times of crisis by the different groups:

Food Security Programming:

Use of Ten seed technique

Situation Analysis: Thnol village Samakey meanchey ADP

Step-8: Estimation of the Asset liquidation sequence of each group

Food Security Status	Ability to create Assets from surplus or taking loans	Liquidation sequence for Asset
"Krup Kroan"		1. Gold 2. (Moto (new) 2. (2 nd hand pick up 3. Loud speaker 4. (TV (color) 4. (Rice Mill Machine 4. (Small generator 5. Land 6. House improvement
"Mathium"		1. Gold 2. 2 nd hand Moto 3. TV (B&W) 4. Oxen 5. Land 6. House material/house
"Krao"		1. (silver jewelry 1. (cow/piglet 2. Bicycle 3. food grains 4. House material/house
"Tual Krao"		1. piglet/poultry Note: House is such bad shape that no one is willing to buy it.

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa, Sri Lanka/Ravi Jayakaran notes/WVI

Given below is another diagram that shows on a Matrix the asset creation capability of the different groups and the type of assets they invest in. There is variation in the type of asset and also the purpose for which it is created, sometimes as a stand by and sometimes as a status symbol and sometimes even as a luxury:

Asset creation capability:

Type of Asset	"Krup Kroan"	"Mathium"	"Krao"	"Tual Krao"
Gold	X	X (some)	X (silver)	
Pick up	X			
Moto	X (new)	X (2 nd hand)	Bicycle	
TV	X (color)	X (B&W)		
Rice Mill machine/ Small generator	X			
Loud speaker	X			
house improvement	X	X	X (repair)	X (repair)
Land	X	X		
Food grains			X	
Animals		X (Oxen)	Cow/Piglet	Piglet (small) / Poultry
Clothes	X	X	X	X (2 nd hand)

Regional Food Security Workshop/April 17 to 27 th 2001/ Thoduwawa, Sri Lanka/Ravi Jayakaran notes/WVI

Summary and Discussions: It is clear from the above information that a major quest of each group is to try to generate enough surplus 'for a rainy day'. While this may not be

possible for each group to do because the circumstances may be completely steeped against them thus not allowing them to have those times of respite from crisis when surplus can normally be generated. As a household moves down the “Food Security ladder” there is an increasing pressure from all around that causes a restriction to growth. The need to liquidate whatever is possible to meet the crisis further erodes the CAPTIVE PRODUCTION CAPABILITY even further, thus making the “fall downwards” even faster. Interventions and programs should therefore aim to do the following:

- a) Enable families to generate surplus to stabilize their own Food Security Status.
- b) The strategies will vary from group to group because of the foundation of assets that they already have in place.
- c) None of the groups can be ignored in the process as they have an interplay with each other and exert pressure on each other. The relation and interplay results in the same set of circumstance affecting each group differently. For example, while a drought can affect the Food Insecure in pushing them down the Food security status ladder faster, it will simultaneously make the people above the Prosperity line to become even more prosperous! This group therefore needs to be worked with for attitude change towards the poorer.
- d) The intensity of support that each group needs is different, and by the time a household has reached below the Charity line, it has lost almost everything: Entrepreneurship, risk taking ability, captive production capability in the form of Land and animals, spare capital (because of debts), household peace, family adhesiveness (the family’s ability to stay together), creditworthiness, Health, ability to better oneself, Hope and even self respect. Such families need very intensive care to be put back into the system that seems determined to “shove them out!”.
- e) Increasingly we are finding in our ADPs that we do not have appropriate programs for people who have fallen below the Charity line, while at the same time our call is to serve the poorest of the poor. Often for this group the most appropriate response is an intensive combination of Welfare and Development programs, and we are more geared to doing one or the other but not a combination of the two! Thus the solution may be to find some group or organization along with whom to work in partnership to more effectively reach them.
- f) At the same time for each level of group the type of program which is appropriate will vary. For a group that has still got its Entrepreneurship alive, a Welfare type of program would completely destroy the spirit of enterprise!
- g) More study is also required to see the range of efforts that each group undertakes to establish its Food Security status and also find out the which of these are risky and uncertain so that we can enable choices that will be less risky.

Dr. Ravi I. Jayakaran
Food Security & Disaster Mitigation Advisor