3. FOOD & FEEDING -DECIDING WHAT TO DO

3.1 Where?

The local RRC or Drought Relief Committee will guide you, but ask for:

— survey of the area which indicates relative need, OR OFFER TO DO ONE, before making a final decision.

— map showing the relief and all the streams and the roads of the area you are asked to cover. Few are available: ask for help in getting one made.

— census results for the area you are asked to cover. Bear its age and any comments on accuracy in mind during planning.

One or all of these will increase the accuracy of your survey and your planning.

3.2 Who and how many?

3.2.1 Local information & requests

The local administration usually has some idea of relative need, and has at least rough numbers of households, if not the results of the census. Discuss these with them.

3.2.2 The thinnest

In a drought, it is the thinnest people, especially those who are also ill, who are most urgently in need of food and feeding.

For convenience, as well as the reasons outlined in 1.2.1, we divide hungry children and their families into three categories:

— more or less OK, and healthy
— undernourished, and/or ill
— severely undernourished

To find these people, and to estimate their numbers, read through 3.2.3-6 and proceed as in 3.2.7. & 3.2.10.

3.2.3 What measure?

MUAC (Mid Upper Arm Circumference) is not very accurate, but we do use it for screening, i.e:

— to get a ROUGH idea of the problem
— or to measure a very LARGE NUMBER of people in a short space of time

WFA (Weight For Age) is the measure most often calculated in the child health records kept by health workers. It is very good for monitoring child growth over the long term. But it shows a combination of the LONG-TERM effects of food shortages as well as those IMMEDIATE effects which an emergency programme is supposed to discover and deal with. It is better to use a measure which is less ambiguous for emergency situations. We recommend WFL.

WFA also poses problems here since few mothers know their children's date or even month of birth.

HFA (Height For Age) measures only long-term nutritional status.

QUAC-stick (MUAC for height) measures thinness, but there is less experience in the use of height than in the use of weight in screening and monitoring, so we recommend using WFH or WFL as the major thinness measure.

WFL or WFH (*Weight For Length or Height*), *takes time, but is an Accurate measure of thinness, and is recommended as the best measure to use for decision-making for drought relief.*

3.2.4 Weight for length -for all monitoring

WFL% is

the actual weight of the child
DIVIDED BY
the reference value for
a child of the same length
X 100

See 8.6 for WFL table.

3.2.5 Age-based measurements -for babies

Young babies should normally be plump. Some may nevertheless be very small . Because babies are capable of rapid weight gain & growth, we need a measure to find which of them might benefit from extra feeding.

Babies' ages

Try to find out the age in months of babies aged 12 months or less, in order to gauge how small s/he is in relation to age, and thus the potential for catch-up growth:

First find out in which months during the last 12 there was rain, sowing, weeding and harvesting of which crops. Ask the mother to say when in relation to one or more of these events the baby was born. You can then calculate to within a month how old the baby is.

In a very malnourished population this is a more accurate way of estimating age than counting according to teeth and "normal" developmental stages, because children may not be growing and developing as quickly as normally.

NB Do this cross-questioning and calculation ONLY for babies of 0-12 MONTHS.

Calculations

WFA% of 1-12 month old children:

the weight of the baby
DIVIDED BY
the standard weight of a baby that age
x 100

See 8.7 for a WFA table

3.2.6 Standards and cut-off points

Suggest that all organisations in your area who measure children and collect data agree NOT to use terms like "moderate" and "severe" malnutrition, but instead simply to state cut-off points in all reporting, and that where possible all agree to use the same cut-off points for dividing children into different categories. Below are recommended definitions.

Rule-of-thumb cut-off points:

Highland Ethiopian children 1-5 yrs are:-				
	OK	**THIN** (= moderately malnourished)	**VERY THIN** (= severely malnourished)	
with **MUAC**	13.5cms +	<13.5cms	<12.5cms	**NB**
with **WFL**	80% +	<80%	<70%	These are
with **QUAC**	85% +	<85%	<70%	APPROX.
with **WFA**	70% +	<70%	<60%	equivalents

See Appendices 8.6-8.8 for WFL/H & WFA tables.

See 1.2.1 for SCF's relevant Ethiopian experience.

3.2.7 Assessing thinness

1. You will need to measure the nutritional status only of children of five years old and less, as an indicator of the nutritional status of the rest of the population, and as a direct measure of the status of this most vulnerable group in the population.

Assessment of older children can also be done according to thinness (see 8.6 for WFH tables); whereas assessment of individual adults is best done by clinical, visual and social assessment.

2. On samples:
Ideally, a survey is conducted with a sampling frame provided by accurate maps, censuses or lists, which allow you to work out a properly random sample. This is not an easy job, especially in an emergency. Consult a professional statistician if you do need such a sample. Meanwhile, we think you can avoid the major errors in a rough sample by keeping to the following basic rules.

For your sample to be representative you will need to include a range of children, not just the thin and the ill; and make sure the babies are represented.

DON'T measure the first children you see, nor just the children of families hanging around waiting for distribution - they may be worse (or better) off than most children at home in the rural areas.

3. Go to the rural areas that are not represented by existing roadside samples. Arrive at dawn if possible to check on who and how many people leave the village then and will therefore not be in your sample.

4. Ask local leaders and people familiar with and to the area (usually Farmers' Association - FA leaders) to fix a day and a shady place for your survey, and to call people and help organise them.

5. Take the following with you for your survey:

- at least one assistant, who speaks the local language, and who is trained in measurement
- if you have them, and have space, take rewards, e.g. 500 biscuits or bars of soap
- a length board 120 cm long (see 8.2)
- a tripod if you don't know where you'll be hanging your balance
- keep all the following survey equipment in a special holdall, together with a list of the contents, so that you can check them before and after each survey:
- 2 clipboards & ruled forms as in 3.2.10
- ruled paper, pencils, ruler, stapler
- min. 2 fibreglass tape measures, with end = 0
- 25 m rope to mark off your weighing area, as well as 3 m rope to hang up your balance
- 1 25 kg Salter spring balance (hanging scales) calibrated in 0.1 kg, checked for accuracy before leaving with a known weight of approx. 15 kg.
- weighing pants, & a baby sling
- anthropometric tables (WFL, WFA) & calculator
- nails, safety pins, string, plastic records cover, penknife, hammer

6. Most children aged 5 and below measure under 110 cm in height. In each village mark 110cm on a stick, give it to a village leader, and ask to see all the babies and all the children who are shorter than the mark.

7. Select only numerate literate workers for the job of measurement and its recording. Train your workers in taking measurements *before* you start organising people.

— 1 for organisation
— 1 for recording
— 2 for weighing and measuring length
— (+1 for MUAC)

Decide before the measuring begins who is responsible for doing

what, and in what order (identification, weight, length, MUAC -each measurement to be recorded as it is made). Only persons trained to do the measurements accurately may take them.

8. Have all the children and mothers and babies sit down under a tree, or another shady place. Ask a local leader to keep order.

9. Measure enough children from each village to make up 200 from the whole area. This ensures with reasonable reliability that your results represent the population surveyed.

10. Look into the houses to make sure all the babies and sick children have been brought out. (If mothers will not allow them to be weighed outside, take the scales to each house, after the main weighing outside).

11. Separate or rope off the number you want to weigh—some from the front of the crowd, some from the middle and some from the back. Tell the crowd that they will all have a chance to get food when it comes, but today you only need to weigh some of them for your report—the ones you have roped off.

3.2.7.11 Korem 1983
A well-organised survey area: roped off, one child being measured at a time, with parent watching closely.
(Photo: Mike Wells)

12. Measure a few older, bolder children first, to show that it does not hurt. Call one child at a time into the measuring area. Weigh, measure and record that child's measurements before starting the next child.

13. Give everyone who turns up for the weighing a biscuit or a piece of soap as a reward, AFTER the children have been weighed.

3.2.8 Measuring techniques

See 8.3-8.5

Reminders:

Weigh and measure ALL children screened, incl. the babies. Just take extra care while handling them, and make sure the mother can see what's going on.

Hang the scales level with the eyes of the observer.

Remove any heavy clothing the child is wearing before weighing.

Measure WEIGHT to the nearest 0.1 kg;
LENGTH to the nearest 0.5 cm;
MUAC to the nearest millimetre

Use length rather than height; you have to lie the babies down anyway, so use the same measure for all.

(IF you have no length board, stand the child on a board or flat ground with his back straight against a flat surface, on which you have ATTACHED a tape measure with the 0-end behind the back of the feet.)

Record accurately and neatly the name, age and sex of each child as well as weight & length (&/or MUAC) accurately and neatly.

WFL% calculations can be done during recording or later.

Note on the recording form any cases of oedema and swollen stomachs; WFL% is NOT an accurate measure of the nutritional status of these children.

Use a survey form like that in 3.2.10

3.2.9 A note on SCF WFH charts

We have not used WFH charts during drought relief work:

— there are few straight walls to put them on.

— babies, and children who cannot stand, cannot be measured on them.
— our post-admission evaluation & monitoring is based mainly on weight changes alone.
— their WFH accuracy is only to the nearest 5%.
— it is useful to have written records of length.

3.2.10 Rough screening-by MUAC with surveys-by WFL

Measure carefully and accurately (see 8.3-8.5)

Standardise your measuring: practise measuring several children of different ages, and compare measurements. DON'T start any survey measurements until you and your helpers are all getting measurements within 2 mm of each other for each child.

(Remember to compare techniques as well as data when comparing your results with other groups'.)

For surveys, use MUAC, then WFL, like this:

500 children with families surround you as you get out of your car. You want to do something for the families of the worst ones, and you go about selecting them as follows:

1. Ask them all to sit down in the shade, and ask a local leader, or someone with a stick, to keep order, preferably without using the stick.

2. Prepare this survey form:

SCF reporting form for occasional surveys

SURVEY DATA (CHILDREN UNDER 5 YEARS OR 110 CMS)

CENTRE.....AWRAJA.....NFW IN CHARGE.....

NAME & LOCATION OF SURVEY POPULATION.....

REASON FOR SURVEY.....

No.	Child's Name	Sex	Age in months	Weight	Length	WFL%	Arm Circ.	Remarks

3. Get your survey bag (3.2.7.5)

4. Rope off a measuring area.

5. MUAC them ALL. Note name, MUAC & age (months)

6. Weigh and measure length, only of:
   — babies (less than 12 months) who are not plump
   — 1-5 yr-olds with MUAC less than 13.0 cm (= less than 80% WFL)

7. Calculate WFL% for those weighed.

8. Set out your results as below:

Nutrition survey report

REGION ..... AWRAJA ..... WEREDA .....

CENTRE ..... SURVEY DATE ..... REPORT DATE .....

SURVEYED BY .....

	% NUMBERS IN WFL GROUPS															TOTAL		
LENGTH IN CENTIMETRE	50—54	55—59	60—64	65—69	70—74	75—79	80—84	85—89	90—94	95—99	100—104	105—109	111—114	115—119	120 & OVER	< 70%	< 80%	TOTAL
50—59.5																		
60—69.5																		
70—79.5																		
80—89.5																		
90—99.5																		
100—109.5																		
110— & OVER																		
TOTAL																		

9. Note the number of, and identify the children under 80% WFL. These are the thinnest children, and their families are probably among the thinnest families. Tell them when to return for a dry distribution, a supplement, or wet feeding.

10. KEEP the analysis sheets of all your survey results. In addition to helping you identify people to feed, they give you the following information about the groups of people measured:

   — proportion of children adequately nourished
   — proportion moderately or severely malnourished
   — any faltering according to age

You may need this information later, to measure the progress of your group of feeders, or to compare it with other surveys.

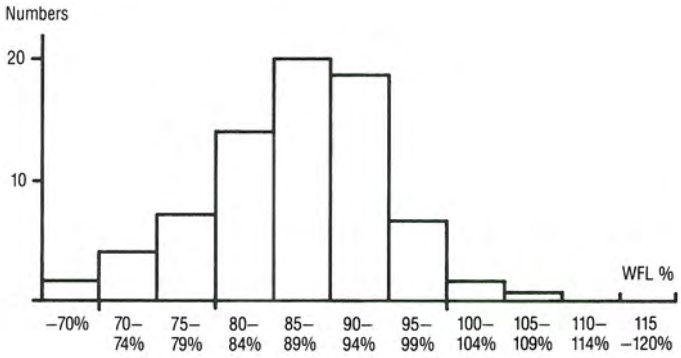
NOTE that the conclusions about nutritional status are made on the basis of the WFL measurements, NOT the MUAC measurements. MUAC is used purely to save time by finding the thinner children who need measuring.

3.2.11 Records, analysis & reports

The use of graphs and their interpretation is difficult to learn quickly. Our field workers have found it simpler to produce accurate numerical WFL records, grouped systematically, eg in 5% bands, for reporting survey results,: e.g. the reporting form in 3.2.10

The information in the form can be displayed graphically, with no further calculation, in histograms, which are used widely:

Histogram to show the frequency (numbers) of WFL % values in a survey population.



This histogram shows that in 100 children 0-5 years surveyed, 15% are under 80% WFL and 2% under 70% WFL. There is something wrong when more than 10% are under 80% WFL.

This gives a clearer general picture than marking points on a graph and avoids the plotting errors that graphs are subject to.

In reports:

— include a short description of how you conducted your survey, as well as a general description of conditions in the area and of the people, and an assessment of food supplies.

— the reporting form in 3.2.10 and illustrative histogram above provide all the data on nutritional status that you are likely to be asked for in a field report.

3.3 Food use and local context

Read **Basic Nutrition** in 8.10 before continuing.

Remember that emergency feeding must NOT create dependency; people must manage again on their own as soon as possible. Make sure you are in agreement with the local authorities on this point, and that you set and agree on clear, strict criteria for DISCHARGE as well as ADMISSION for any distribution or feeding.

3.4 Dry ration distribution

3.4.1 Basic rations first

Give priority to dry distribution, ie grain, and plan it together with the local Drought Relief Committee.

3.4.2 Whose responsibility is dry distribution?

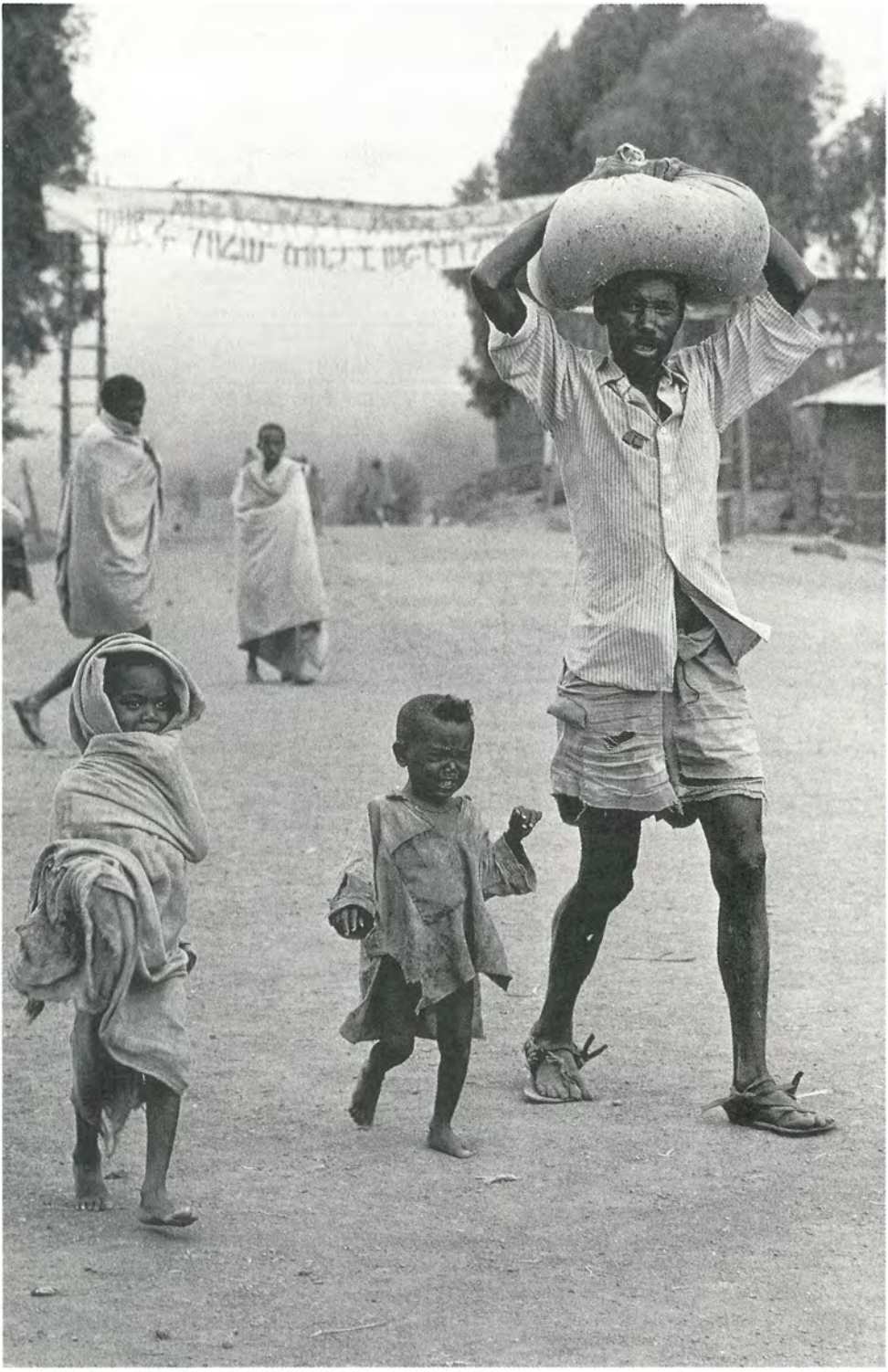
It is normally the responsibility of the RRC and the local Drought Relief Committee to supply food to families in need of relief. The RRC aims to supply families at a monthly rate of:

— 10-15 kg per adult
— half the adult ration for children 6-15 years old
— 3 kg infant foods for children under 5

Where the RRC are able to supply this basic ration, coordinate your supplements and/or feeding with RRC distributions:

— check with RRC that your supplements will be treated as such, & not as replacement distributions;
— do your screening (see 3.2) when RRC beneficiaries' families come to the local RRC store for distribution;
— decide which categories to feed;
— the next time they come, organise distribution of supplements, or registration for feeding.

Where the RRC are unable to supply food, discuss division of this responsibility with them and all other organisations operating in the area: which of you will take responsibility for which type of feeding? Make sure that the supply of family rations of basic foods is guaranteed by one or more of the organisations before there is any discussion of supplements or feeding.



3.4.2 Korem 1983
In normal years, the RRC copes with relief food distribution during local temporary shortages. (Photo: Mike Wells)

3.4.3 Types of food for dry distribution

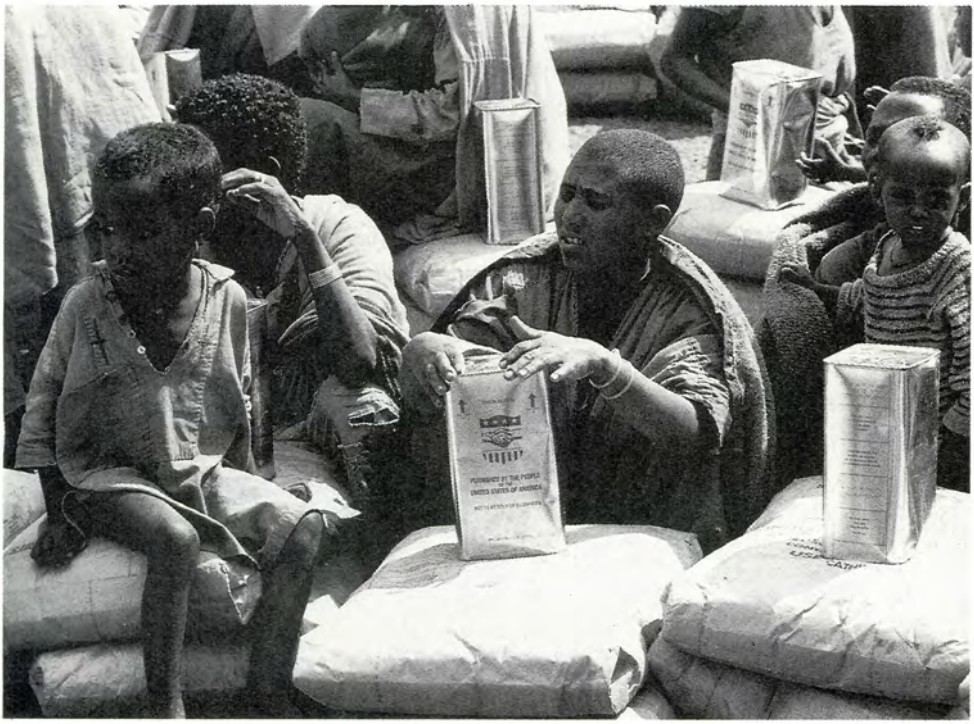
Cereals - contain energy, and some protein and vitamins. Best consumed milled, in injera, kitta, ganfo, ie. as bread or porridge.

Beans, peas, lentils - contain energy, protein, minerals. Common in Ethiopian diets. Best consumed in stews.

Fats & oils - high in energy. Appreciated in cooked food. Best consumed in stews, porridges, hot drinks.

Relief foods - convenient but little known, so demonstration recipes necessary. 4.3.2 gives contents.

Biscuits - good, but expensive stand-by. See 4.4.



3.4.4 Kobo 1985

A monthly family food supplement to the RRC rations, organised by Catholic Relief Services, consisted of 50kg of soya grits, 4 litres of oil, as well as dried skimmed milk, all sent by USAID. (Photo: Mike Wells)

3.4.4 Quantities

Dry ration distributions should aim at supplying the food value expected from subsistence agriculture: a basic average ration providing 2000 kcal per day for every man, woman and child, or an

average 15 kg of food per month (= 500 g per day per head of population). Calculate: 35 MT per week for 10 000 people plus some variety, at least grain + oil,

eg. 450 g grain per day
+ 50 g oil per day
ie. 500 g food per day, or 15 kg per month

Make sure you provide 20-40% fat calories and 10% protein calories. The above example does this. Calculations: see 4.19

If these proportions and quantities are provided regularly, it is sufficient for body maintenance, child growth, and light activity.

Energy & protein requirements for adults are both well covered by the above recommendation, but members of vulnerable groups (3.5) need supplementary foods which will increase both their energy and their protein consumption. Protein is NOT at issue. If there is enough food to satisfy energy needs, this will generally also satisfy protein needs.

Possible vitamin & mineral deficiencies in vulnerable groups are best dealt with in this situation by supplementation, rarely practicable outside feeding programmes, and less important in the first instance than assuring total energy and protein needs.
NB The above quantities are goals for monthly distributions of dry rations, but it is clear that people can survive on average intakes of 1500 kcals.

Energy requirements per person per day in emergencies (after Ville de Goyet et al)

GROUP	EMERGENCY SUBSISTENCE kcals (MJ)	TEMPORARY MAINTENANCE kcals (MJ)
0-1 yrs	800 (3.4)	800 (3.4)
1-3	1100 (4.6)	1300 (5.4)
4-6	1300 (5.4)	1600 (6.7)
7-9	1500 (6.3)	1800 (7.5)
10 yrs + (male)	1700 (7.1)	2000 (8.4)
10 yrs + (female)	1500 (6.3)	1800 (7.5)
Pregnant/lactating woman	1900 (8.0)	2200 (9.2)
Average person /day	**1500 (6.3)**	**1800 (7.5)**

There is usually less than this available for distribution, because the RRC judge that people have some food stocks at home, or because there simply is not enough food on the spot, or for supply, transport or security reasons.

You must then choose between:

1. dividing what you have among the total number of hungry, or

2. restricting distribution to a group of them. The size of that section will be determined by how many rations of "minimum" size you have.

You should make clear to your organisation and to the local Drought Relief Committee which principle you are following and whether it will change if supplies are increased or reduced. However, you should not make public statements about this type of decision, out of respect for local political sensitivities.

Calculations

At the above levels for full rations:

1000 families of 5 members each would require:

.45 kg x 30 x 5000 = 67.5 MT grain per month
+ .05 kg x 30 x 5000 = 7.5 MT oil per month
= **75 MT of food per month**
plus any supplements

NB 1 metric tonne (MT) = 1000 kg = 10 quintals
i.e. 1 quintal = 1/10 tonne

3.4.5 Decentralised delivery

Investigate how to distribute food as CLOSE as possible to where people live. The advantages of delivering close to people's homes are:

— it saves people long trips to get their rations

— it keeps families together longer

The disadvantages are:

— it requires more roads, transport, stores and staff.

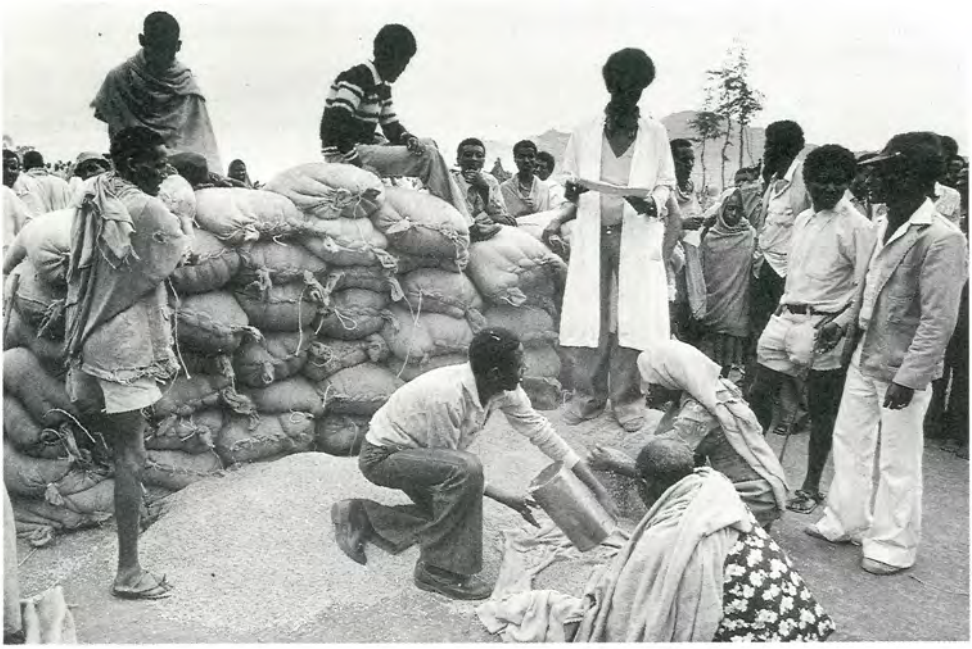
— in some areas of Ethiopia, there are considerable security problems in remote areas, and relief workers and government officials alike are at risk when travelling and working there. DON'T annoy officials, and tempt fate, by insisting on working in places where they cannot guarantee your safety.

3.4.6 Distribution system

Unless you have something vastly superior, adopt the RRC system of distribution, making appointments through FA representatives, recording, division of sacks etc. The advantages are:

— both RRC & FAs know the system well.

— this is probably the system which will continue after you have left.



3.4.6 Korem 1983

An RRC distribution. The register (centre) checks with Farmers' Association chairman (right) on the identity of the head of household (front right) before the food distributors measure out his family ration with the local tassa. (Photo: Mike Wells)

3.4.7 Milling

Milled grain is far more digestible than whole grain, especially for malnourished people; milling is therefore a means to making fuller use of what food does come into the country.

Investigate whether local millers have sufficient capacity to deal with the quantity of grain expected; and find out about state and private policy and practice regarding milling. Discuss with the administration any plans to introduce mills.

Remember that whole grains store better than milled, so DON'T request milled grain from outside the area for dry distribution; rather request diesel-powered mills in addition to whole grain relief aid.

Mill the grain in association with distribution. Make the service free if possible, to avoid people exchanging part of their ration to pay for the service.

3.5 The vulnerable groups

Once basic dry family rations are being supplied, then and only then consider improving the intakes of the vulnerable groups.

3.5.1 Special requirements

Some groups show more rapid deterioration in nutritional status and health than other groups in the population when there is a food shortage, because their special needs, for extra calories, protein or vitamins are not covered by low intakes. They are:

1. children 5 yrs or less (esp. those under 80% WFL)
2. pregnant and lactating women
3. malnourished (under 80% WFL) school-age children
4. the sick
5. elderly people and destitutes

Re 1: See 3.2 for how to find out how to classify children under 5 years and HOW MANY there are. Children under 5 usually constitute 15% of the total population.

Re 2: Any pregnancy which is not obvious can be vouched for, eg. by the other women in her FA; lactating women must show their infants.

Re 4: By health service referral.

Re 5: A small committee of local administration, health and social services representatives can screen these for absolute need.

3.5.2 Priorities

Improve the rations and intakes of Groups 1 & 2 first.

Aim at providing 2500 kcals/person/day (ie. 50 kcals/person/day in addition to basic ration distributions of 2000 kcals)

3.5.3 Discharge levels

The length of time you keep these people on special ration (or feeding) programmes depends on how much food you have.

You must make clear to the Drought Relief Committee that you intend discharging members of vulnerable groups from special programmes when they have recovered from serious risk of illness or death, providing there is a food supply or ration system to discharge them to. The following discharge levels (listed according to the groups above) are only a guide:

1. 90% WFL

2. when baby is 4 months; then feed mother-baby unit according to the nutritional status of baby
3. 90% WFL
4. on recovery
5. clinical and social assessment

3.6 Dry supplements

Where you have enough food, give these in addition to basic dry rations distributed to families, as additional supplements to members of vulnerable groups.

Add some protein to the standard grain+oil package, preferably beans, because they are part of the normal diet.

3.6.1 Children below 80% WFL

These should receive a total of 10 kg food per month. Agree on a supplement which includes extra protein as well as calories to make up whatever the shortfall in the regular distribution is.

Children's supplements should preferably be of ingredients for a High Energy Drink (HED), and preferably already mixed in a pre-mix (see 4.19.1 & 2 for pre-mix suggestions). 10% of the weight of the food should be added oil or fat.

3.6.2 Pre-mixes

The main advantage of a pre-mix is that it is unsuitable for making bread or injera. A thin child is consequently more likely to receive the food, as a drink, when it is supplied in a pre-mix.

The main DISadvantage is that a pre-mix containing oil will go rancid within a week in the lowlands and within 10 days-2 weeks in the highlands.

An efficient pre-mix distribution scheme requires:

— weekly distributions
— mixing staff as well as distribution staff
— HYGIENIC mixing
— constant monitoring to check that the children are really getting the pre-mix, and to admit or discharge children as they become eligible or ineligible

3.6.3 Groups 2, 3, 4 & 5

The groups in 3.5 should get a total of 20 kg food per person per month, with 10% of the weight in fat or oil. Agree with the DRC on a supplement to make up whatever the shortfall is in the regular distribution.

3.6.4 Sharing

3.6.4

A family on the move. Mothers travel with their children and a basic cooking pan which they improvise a stove for with three stones. The family has a better chance of staying together during the crisis if provided with shelter, water, latrines and food. Children should not be separated from their families for long periods of time unless at risk of death from illness or severe malnutrition (<70% WFL). (Photo: Mike Wells)

Remember that if the supplement is, or becomes, the only food that a family is receiving, it will be shared out among ALL the members of the family, not just those it is intended for. The best way of ensuring that all the above groups actually eat most of their extra allocation, is to make sure that a good-sized family ration is provided at the same time as the supplement. Good distribution reduces the numbers of undernourished in all groups.

Aim at preserving the social & family structure as far as possible. Any special feeding tends to split families and groups.

DON'T start supervised feeding for any of the vulnerable groups above until AFTER regular dry distribution for them and their families is organised. If you feed children while their parents and siblings go hungry, for example, you will end up with a community of orphans.

Try to make the family the context of whatever food distribution or feeding you are doing: let families organise their own food-sharing and cooking as far as possible. However, each family's own limitations of water, firewood, cooking space and equipment, not to mention administrative strictures and security regulations, may make family cooking difficult and mass cooking inevitable.

Don't involve children or others in FULL cooked feeding unless essential for their own survival; it is very disruptive of family life.

3.7 Wet/cooked feeding

3.7.1 Timing

DON'T start cooked feeding until AFTER the dry distribution for the whole family has been established. Otherwise the rest of the family of the feeder will find ingenious ways to feed off your programme.

SCF Korem's child feeding programme experienced this when family ration supplies were very low for some months. The alternative to hiring a "policeman" for every few feeders was to give each one twice as much as s/he could be expected to eat, to satisfy the worst hunger pangs of whoever accompanied the child. We had to calculate "needs" as double the child recovery & growth rations during the period.

3.7.2 Measured feeding vs. feeding "machine"

1. One way of feeding the most vulnerable groups of children, those under 80% WFL and 70% WFL, is to provide enough staff and organisation to calculate the quantity of food each child can make use of to grow, calculated as 150-200 kcals per kg of body weight for catch-up growth, and ensure that s/he receives it. SCF Bulbulo provided re-feeding for up to 1000 children under 70% WFL in this way, & 2 meals a day for accompanying relatives.

The most valuable aspect of measured feeding is the high level of supervision afforded. Although measured feeds may be closer to individual children's actual needs than an overall ration, as in the "machine", they too are only approximations. It is not possible to calculate any one child's precise requirements, due to considerable variation in the rate bodies of the same size, age and activity level use up food, as well as unknown needs of disease.

2. In Korem, where we oversaw the feeding of 5-10 thousand children every day, the high organisational and staffing requirements for the measured approach were applied only for the approximately 1000 children under 70% WFL, who need and respond to such special care. Healthy children above 70% WFL but below 80% WFL on registration were fed in a feeding "machine". This is simply a queueing system, whereby each child is guaranteed to receive 2500 kcals per day provided s/he goes through the queue 5 or 6 times a day, and eats the meals on the spot, ie. does not share with the family.

The staffing, organisational, supervision and space requirements are far lower for a feeding "machine" method; but more food per child has to be distributed than in a measured approach, to guarantee that all children's needs are met. Higher levels of supervision at SCF Bulbulo contributed to higher rates of weight gain there.

CHOOSE between the two approaches according to:

- **numbers** of children on the programme, and their nutritional status. Measured feeding is best suited to a small, (less than 500) programme catering for seriously malnourished children (70% WFL or less).
- **budget** available for staff. You will need more staff for supervising a measured feeding area.
- availability of trained **staff**. You will need to organise training in administering measured intakes and calculating adjustments before considering the measured approach.
- **space**. Measured feeding is most successful in large, spread-out sites.

3.7.3 Full cooked feeding

Intensive feeding i.e. full feeding for selected groups, should be for those members of one or more of the vulnerable groups who:

- are very thin members of families who already have a family food supply. *Your* criteria for thinness will depend on matching their numbers & *your* food supplies.
- are ill and refusing food
- are ill enough to need in-patient care

For these people:

- provide food worth 2500 kcals per person
- make up menus of ENERGY-DENSE food, ie. maximum kcals in minimum volume. See 4.19
- divided into minimum 4 daily servings

These people may live far from the feeding centre and so may need shelter as well as food and care.

Supervised intensive feeding (or therapeutic feeding) provides extra supervision and close medical care for the very worst cases. Normally provided for children <70% WFL, or <70% and ill, depending on *their* numbers and *your* food supplies and staffing capacity. The measured approach (3.7.2) is appropriate.

3.7.4 Supplementary cooked feeding

3.7.4 Korem 1985

Kitia — an unleavened flat bread (made of donated soy-wheat-flour in Korem), is a popular substitute for injera. Served with a high energy drink it makes an excellent supplementary meal. (Photo: Mike Wells)

This is for all members of one or more of the vulnerable groups, who need supervision to ensure that they consume their own supplement of at least 500 kcals/day. Such beneficiaries should:

— live close to or in the centre
— have some food in the family already
— not qualify for full feeding

Organise for these people:

— 1 or 2 cooked meals, of MINIMUM 500 kcals each, at times which fit in with household routines

Only the feeding "machine" approach (3.7.2) is relevant here, but supervision is necessary to ensure the standard portions *are* consumed.

SCF Errer, working in conjunction with LWF dry family ration distributions, adopted this system for children under 5 years under 80% WFL, and for PLWs.

For help with supplies calculations, see 4.3 & 3.4.4

3.8 Matching food supplies to needs

3.8.1 Types of food

See 3.4.4 for dry ration calculations

See 4.3 for contents of Ethiopian relief foods and cooked ration calculations

3.8.2 For a known quantity of supplies

Calculate from your survey (3.2) the total number of people (eg. families with malnourished children) needing rations, supplements and full feeding. Compare this with the total tonnage of the food you know you have been promised, and the number of months you expect to need it.

If it is insufficient, decide whether you want to:

— ask for more, or
— spread it thinly & evenly (LESS than full rations) or
— limit yourself geographically, or otherwise, to the number you can feed full rations to regularly with your supplies

Tell your suppliers already in this planning stage how much MORE food you would need to feed the rest of the families in your area, or the other vulnerable groups, or whatever feeding job is not being done. This helps them decide who to offer additional supplies to.

EG You have been guaranteed supplies to set up wet feeding in a town where approx. 10 000 extra population rely on relief food.

1. Ensure the families already receive general rations

2. Screen the children at distribution time (3.2)

3. For the e.g. 500 children under 80% WFL that you find, cook 1 midday supplementary meal of 500 kcals+ (0.5 MT per week); and for the 100 children under 70% WFL invite the mothers to bring them, or send them with an older brother or sister, to stay with them in your therapeutic feeding centre for full feeding (another 0.5 MT per week).

3.8.3 When supplies are uncertain

— decide what category of feeders you want to cater for
— assess their number from your survey
— calculate the food needed every month
— look for suppliers

DON'T announce any plans until you have assured your food supplies

EG If the town in 3.8.2 had very irregular, poor supplies, eg. 2-300 MT/month, you could screen and start feeding as above, but in addition lobby your own or other organisations to supply general distribution supplies, while applying to your donors for supplies to provide full feeding for all children under 80% WFL (2 MT per week).