

Annexe I

Computer software

Where you have collected information on several areas or populations, or where you would like to develop multiple scenarios, manual analysis can be tedious. Computers allow the data to be quickly reconciled, minimise errors and allow multiple scenarios to be quickly developed. Two approaches are commonly used: spreadsheets and dedicated software.

Spreadsheets

Spreadsheet models are most useful for speeding up calculations on a single food economy area, or a few areas.

Dedicated software

Dedicated software enables you to use more sophisticated modeling, specifically of the interaction between populations where, as is often the case, they use the same markets to exchange some commodities and therefore come into competition.

The RiskMap software was originally designed for analysing very large data sets, typically describing whole countries in terms of many areas; it is not suitable for calculations involving single areas. RiskMap was originally developed in Windows 3.1 but will run successfully in Windows 95 or 98 (difficulties have been experienced with installing it in Windows NT). The RiskMap model does not permit the detailed analysis of household budgets. The program is currently being revised.

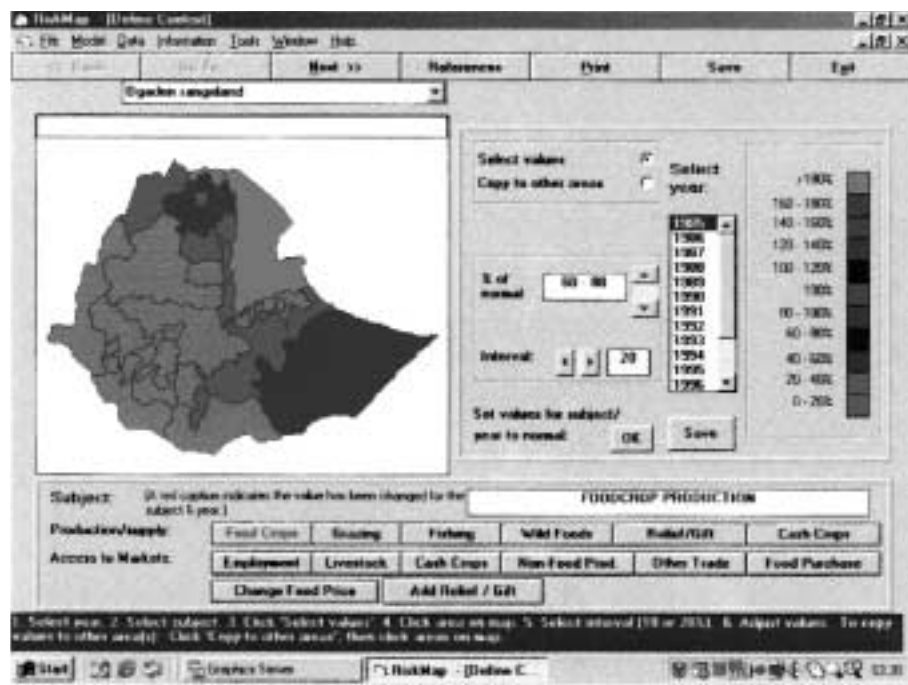


Figure 22: RiskMap screen

A copy of RiskMap, including a sample database, is available, price £30, from Malcolm Newdick, Riverbank IT management, Manor Cottage, Little Milton, Oxford, OX44 7QB, UK.
(mail@riverbank.co.uk: www.riverbank.co.uk)

Annexe 2

Energy values of foods

This summary table of food energy values has been extracted from *Tables of Representative Values of Foods Commonly Used in Tropical Countries* (Platt, 1985, see Annexe 4).

The table is useful for evaluating dietary data based on records of group consumption. The tables are not suitable for detailed surveys of the diets of individuals.

Food energy values are given as the amount per 100 g of edible portion.

	Kcal/100 g		Kcal/100 g
CEREALS		16. Oats, dehusked	388
1. Barley, whole, dehusked	339	17. Rice, lightly milled and parboiled	354
2. Barley, pearled	351	18. Rice, highly milled, polished	352
3. Buckwheat flour, 90% extraction	348	19. Rye, 85–90% extraction	350
4. Buckwheat flour, 60% extraction	349	20. Sorghum, whole grain	355
5. Maize, whole	363	21. Sorghum flour	353
6. Maize meal, about 96% extraction	362	22. Teff, whole grains	345
7. Maize meal, refined, 60% extraction	354	23. Wheat, whole and parboiled	344
8. Maize starch (commercial), corn-flour	352	24. Wheat flour, 85% extraction	346
9. Millet, bulrush, whole grains	363	25. Wheat flour, 70% extraction	350
10. Millet, bulrush, meal	365	STARCHY ROOTS, TUBERS AND FRUITS	
11. Millet, finger, whole grain	336	26. Arrowroot flour	340
12. Millet, finger, meal	332	27. Breadfruit pulp	113
13. Millet, haraka, dehusked	353	28. Cassava, fresh	153
14. Millet, jajeo, dehusked	355	29. Cassava flour	342
15. Millet, various, dehusked	355	30. Ensete	190
16. Quinoa	345		

Kcal/100 g	
31. Plantain	128
32. Potato, Irish	75
33. Potato, sweet	114
34. Sago flour	352
35. Taro	113
36. Yam, fresh	104
37. Yam flour	317
38. Yam bean tuber	41
OIL SEEDS AND NUTS	
39. Almond	657
40. Brazil nut	688
41. Cashew nut	590
42. Coconut, kernel, mature, fresh	375
43. Coconut, kernel, immature	125
44. Coconut milk, ripe nut	14
45. Dika nut, kernel dried	697
46. Karkashi	615
47. Niger	513
48. Oil bean, whole seed	544
49. Pistachio nut	626
50. Pumpkin seeds, seed coat removed	610
51. Sesame seeds	592
52. Sunflower seeds, seed coat removed	524
53. Walnut	697
GRAIN LEGUMES AND PRODUCTS	
54. Bambara groundnut	367
55. Bonavist bean	351
56. Chickpea	368
57. Cowpea	340
58. Fenugreek	335
59. Goa bean	404
60. Groundnut, dry	579

Kcal/100 g	
61. Groundnut, fresh	332
62. Horse bean	342
63. Horse gram	338
64. Kidney bean	339
65. Lathyrus pea	293
66. Lentil	339
67. Lima bean	326
68. Locust bean	380
69. Mung Bean (black)	329
70. Manga Bean (green)	324
71. Pea	337
72. Pigeon pea	328
73. Scarlet runner bean	326
74. Soya bean seed	382
75. Soya bean "milk"	32
76. Soya bean curd	76
77. Soya bean	363
78. Tepary bean	331
79. Velvet bean	351
VEGETABLES	
80. Beans, eaten green in pod	34
81. Beans and peas, fresh, shelled	104
82. Bean sprouts	28
83. Beetroot	45
84. Carrots	33
85. Cucumber	12
86. Eggplant	22
87. Gourd	28
88. Leaves, high carotene, dark green, eg, spinach, pigweed, sweet potato tops, kale, blede, etc	48
89. Leaves, medium carotene, eg, chard, New Zealand spinach, purslane, cassava leaves, watercress, cress, squash, pumpkin, colza, etc	28

Kcal/100 g	
90. Leaves, low carotene, pale green, eg, cabbage, kohlrabi, Chinese cabbage, etc	23
91. Leek	52
92. Maize, immature on cob	123
93. Okra	33
94. Onion and shallot	48
95. Palm cabbage shoot	34
96. Peppers, sweet, green and red, seeds removed	37
97. Pumpkin, squash and vegetable marrow	36
98. Radish	18
99. Tomato with skin	20
100. Turnip and swede	34
FRUITS	
101. Avocado pear	165
102. Banana	116
103. Cape gooseberry	48
104. Cashew apple	56
105. Citrus, grapefruit, pommelo, etc	37
106. Citrus, lemon and lime	36
107. Citrus, orange and tangerine	53
108. Custard apple, soursop, sugar apple	93
109. Dates, dried	303
110. Fig, fresh	49
111. Fig, dried	269
112. Grape	76
113. Grenadilla, flesh and seeds	92
114. Guava, flesh and seeds	58
115. Hog plum, spanish plum	95
116. Kanapy, flesh	74
117. Mammy apple excluding seeds	49
118. Mango	63

Kcal/100 g	
119. Melon, sweet	26
120. Melon, water	23
121. Palm fruits, Peach palm, Pejibay	209
122. Papaya	39
123. Pineapple	57
124. Plum	45
125. Pomegranate pulp	77
126. Prickly pear, pulp and small seeds	56
127. Star apple	82
FATS AND OILS	
128. Butter	745
129. Fish liver oils	900
130. Ghee	828
131. Lard and other animal fats	891
132. Margarine	765
133. Red palm oil	900
134. Vegetable oils	900
INSECTS AND LARVAE	
135. Lake fly	289
136. Larvae, dried caterpillars	372
137. Locusts, mature	134
138. Termites, mature	148
BEVERAGES	
Beer, sorghum	35
Beer, European	35
Palm wine (1/2–1 day fermentation)	17
FISH AND FISH PRODUCTS (INCLUDING MOLLUSCS AND CRUSTACEA)	
Fish, freshwater, fillet	95
Fish, sea, lean fillet	73
Fish, sea, fat fillet	166

	Kcal/100 g
Cod, salt	125
Fish, dried	309
Crustaceans (lobster, crab, prawns, etc)	94
Molluscs (oysters, mussels, clams, etc)	70
Sardines, canned in oil	309
Salmon, canned	170
Snail, river, pond	82
Turtle	79
SYRUPS, SUGARS AND PRESERVES	
Honey	286
Jam	260
Molasses (cane, medium)	276
Sugar, crude brown	389
Sugar cane juice	73
Sugar, white	400
CONDIMENTS, SPICES, FUNGI, MISCELLANEOUS	
Colanut	350
Maize and sorghum stems	58
Sugar cane stem	60
Fungi, mixed, fresh	11
Fungi, mixed, dried	99
Mushrooms, fresh	13
Chillies, hot, dried	291
Garlic	139
Tamarind	304
Mustard seed	544
MEAT, MEAT PRODUCTS AND EGGS	
Bacon, fat, whole side	589
Bacon, lean, whole side	362
Beef, moderately fat, whole carcass	262
Beef, lean, whole carcass	202

	Kcal/100 g
Beef, canned, corn	227
Eggs, hens and ducks	158
Goat, carcass	145
Mutton, fat, whole carcass	412
Mutton, moderately fat, whole carcass	249
Mutton, lean whole carcass	149
Offal, heart	129
Offal, kidney	127
Offal, liver	136
Pork, fat, whole carcass	535
Pork, lean, whole carcass	371
Pork, salt, fat	781
Poultry: chicken, duck, turkey, etc	139
Rabbit	134
Veal, moderately fat	184
MILK AND MILK PRODUCTS	
Cheese from whole cow's milk, hard	384
Cheese from skimmed cow's milk, soft	87
Milk, cow, whole	64
Milk, human	75
Milk, buffalo	102
Milk, goat	71
Milk, sheep	108
Milk, cow, skimmed	34
Milk, cow whole, condensed	140
Milk, cow, whole, condensed, sweetened	317
Milk, cow, whole powder (unmodified)	500
Milk, cow, skimmed, condensed, sweetened	276
Milk, cow, skimmed powder	357

Annexe 3

Data collection forms

The following data collection form has been widely used by Save the Children (UK). As sources of income and expenditure are different in different areas, the form has to be adapted for use in each situation (eg, the types of crops and expenditure). The example shown was used in northern Tanzania.

An electronic copy of this form (MS Word) is available from Save the Children, 17, Grove Lane, Camberwell, London SE5 8RD, UK.
fsu@scfuk.org.uk

Interview summary form

Zone Division Village
Interviewer Date

Wealth group

	Group 1:	Group 2:	Group 3:	Group 4:	Group 5:
Percentage of population					
Household size					
Animal holdings: owned and borrowed – cattle – shoats – poultry					
Land cultivated					
Crops grown – to eat – to sell					
O:*					
O:					
O:					
O:					

*O: enter other categories here

Year ranking

Year (beginning of eating green → before next year's harvest)	Ranking (very poor/poor/normal/ good/very good)	Reasons for that ranking
1999/2000 harvest of 1999		
1998/1999		
1997/1998		
1996/1997		
1995/1996		
1994/1995		
1993/1994		
1992/1993		
1991/1992		
1990/1991		

Household kcal requirements (per year) =

Food	Total units	Sold	Other use	Consumed	% of kcal needs
Cereals	Green maize				
	Maize				
	Sorghum				
	Millet				
	O:				
	O:				
Total					
Roots/ Tubers	Sweet potatoes				
	Cassava				
	O:				
Total					
Pulses	Beans				
	Groundnuts				
	Groundnuts (green)				
	O:				
Total					
Livestock	Milk				
	Meat				
Shoats	Eggs				
Poultry	O:				
	O:				
Total					
Purchase	Rice				
	Sardines				
	Potatoes				
	Grain				
	Milk				
	Meat				
	Oil				
	Sugar				
Total					
Total carried forward					

Food		Total units	Sold	Other use	Consumed	% of kcal needs
Total brought forward						
Labour exchange (types of labour paid in food)	FOOD EATEN AT SITE: (day/week * months/year * food/day)					
	FOOD TAKEN HOME TO FAMILY: (day/week * months/year * food/day)					
	O:					
	O:					
	O:					
Total						
Honey						
GRAND TOTAL						

Income

		Number sold	Price	Income
Crop Sales	Maize			
	Sorghum			
	Bullrush millet			
	Finger millet			
	Sweet potato			
	Beans			
	Sunflower			
	Pigeon Peas			
	Groundnuts			
	O:			
	O:			
Total				
Animal Product Sales	Cattle – animal – manure – skin			
	Shoats – animal – skin			
	Poultry			
	Milk			
	O:			
	O:			
Total				
Total carried forward				

		Number sold	Price	Income
Total brought forward				
Agricultural labour (types paid in cash)	O:			
	O:			
	O:			
	O:			
	O:			
Total				
Other casual labour (paid in cash)	O:			
	O:			
	O:			
	O:			
	O:			
Total				
Brewing				
Trade				
Petty trade				
Selling honey				
O:				
O:				
GRAND TOTAL				

Household work schedule

For each economically active person, list: each type of work done, the schedule of work (days/week * number of weeks/month), and the payment earned for that work.

	Person 1	Person 2	Person 3	Person 4	Person 5
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

*Delete whichever does not apply

Seasonal calendar

For each crop, mark the planting, weeding, harvesting (eating green & dried) and selling periods.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Crop 1:												
Crop 2:												
Crop 3:												
Crop 4:												
Crop 5:												
Crop 6:												

Expenditure

		Amount bought (per year)	Price	Expenditure
Food	Grains			
	Milk			
	Potatoes			
	Vegetables			
	Oil			
	Sugar			
	Salt			
	Rice			
	Sardines			
	Fish			
	Meat			
	O:			
	O:			
Total				
Total carried forward				

		Amount bought (per year)	Price	Expenditure
Total brought forward				
Social services	Medical (health centre)			
	Medical (traditional)			
	Education			
	Water			
	O:			
Total				
Taxes	Annual tax			
	Livestock tax			
	Sales tax (livestock, crops)			
	Development levy			
	Bike tax			
Total				
Household items	Fuel			
	Cooking			
	Blankets			
	O:			
	O:			
Total				
Clothes				
Employing others				
Loan repayment				
Agricultural inputs				
Animal costs				
Renting land				
Honey for brewing				
GRAND TOTAL				

Annexe 4

Other sources of information

The internet

There are now many websites providing information on food security including sites relating to institutions in developing countries and regional organisations. The following short list of organisations provides an entry point to sources of information which can be downloaded and links to other sites. It is always worth searching for relevant country and regional sites.

Food and Agriculture Organisation of the United Nations: www.fao.org

Institute of Development Studies: www.ids.ac.uk/ids/

International Food Policy Institute: www.ifpri.org

International Institute for Environment and Development, London: www.iiied.org

Overseas Development Institute: www.oneworld.org/odi

USAID Famine Early Warning System: www.fews.org

World Bank: www.worldbank.org

World Food Programme of the United Nations: www.wfp.org

Documents

There is a vast literature on food security and related topics. The following short list of sources develop some of the themes introduced in this manual.

M Buchanan-Smith and S Davies, *Famine Early Warning and Response: The missing link*, Intermediate Technology Publications, 1995.

R Chambers, *Rural Appraisal: Rapid, relaxed and participatory*, Discussion Paper No. 311, Institute of Development Studies, University of Sussex, 1992.

R Chambers and BP Ghildyal, 'Shortcut methods of gathering social information for rural development projects', in MM Cernea (ed), *Putting People First: Sociological variables in rural development*, published for the World Bank by Oxford University Press, 1985, pp 399–415.

R Chambers, R Longhurst and A Pacey, *Seasonal Dimensions to Rural Poverty*, Frances Pinter, 1981.

P Cutler, 'Famine Forecasting: Prices and peasant behaviour in Northern Ethiopia', *Disasters* 8(1), 1984.

S Davies, 'Are coping strategies a cop out?', in *IDS Bulletin* 24(4), pp 60–71.

S Devereux, *Famine in the 20th Century*, IDS Working Paper 105, 2000.

A De Waal, *Famine that Kills*, Clarendon Press, 1989.

BS Platt, *Tables of Representative Values of Foods Commonly Used in Tropical Countries*, First published 1945, Reprinted 1985 by the London School of Hygiene and Tropical Medicine (Department of Human Nutrition).

Proceedings of the 1985 International Conference on Rapid Rural Appraisal, Faculty of Agriculture, Khon Kaen University, Khon Kaen 40002, Thailand, 1985.

A Sen, *Poverty and Famines: An essay in entitlement and deprivation*, Clarendon Press, 1981.

World Food Programme/UN High Commissioner for Refugees, *Guidelines for Estimating Food and Nutritional Needs in Emergencies*, December 1997.

Save the Children Development Manuals

Helping Children in Difficult Circumstances

A teacher's manual

A step-by-step guide on how to support children who have been affected by violence, with a special emphasis on the role of teachers.

£2.95

ISBN I 87032 242 8

Development Manual No. 1
1991

Communicating with Children

Helping children in distress

This manual aims to help those working in conflict situations and emergencies to develop their listening and communication skills in order to identify and help children with special needs.

£5.95

ISBN I 84187 026 9

Development Manual No. 2
Second edition 2000

Family Tracing

A good practice guide

This book discusses how to trace and reunite families. It highlights the importance of assessing the best interests of the child, and of working with families and communities.

£4.95

ISBN I 87032 277 0

Development Manual No. 3
1994

Street and Working Children

A guide to planning

Ideas and examples for those who want to start or improve a project working with homeless and working children.

£7.95

ISBN I 84187 032 3

Development Manual No. 4
Second edition 2000

Toolkits

A practical guide to assessment, monitoring, review and evaluation

A unique and highly practical guide to help development workers evaluate and monitor their work in a systematic way, in order to improve its effectiveness and quality, and identify strengths and weaknesses.

£6.95

ISBN I 87032 293 2

Development Manual No. 5
1995

The Household Economy Approach

A resource manual for practitioners

This manual offers an introduction to the Household Economy Approach, Save the Children UK's methodology for analysing the impact of crop failure and other shocks on household income and access to food.

£9.95

ISBN I 84187 029 3

Development Manual No. 6
2000