VALUE-FOR-MONEY IN HUMANITARIAN AID FOR KENYA AND SOMALIA ©

DFID

Kenya & Somalia

A Report for DFID's Nairobi Office

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SPECIALISTS IN DEVELOPING COMMUNITIES

VALUE-FOR-MONEY IN HUMANITARIAN AI D FOR KENYA AND SOMALIA

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APPENDIX

GLOSSARY OF ACRONYMS

ACF	Action Contre La Faim (Action against Hunger)
CAP	Consolidated Appeal Process
CDC	Centre for Disease Control
CERF	(UN) Central Emergency Response Fund
CHD	Child Health Day
CHF	Common Humanitarian Fund (of OCHA)
CMAM	Community based Management of Acute Malnutrition
CSB	corn soya blend
DAC	Development Assistance Committee (of OECD)
DRR	Disaster Risk Reduction
ECHO	European Commission humanitarian aid and civil protection
EMOP	Emergency Operations (WFP)
ENN	Emergency Nutrition Network
EPHS	Essential Package Health Services
ERF	Emergency Response Fund
FAO	Food and Agriculture Organisation of UN
FANTA	Food and Nutrition Technical Assistance
FEWSNET	Famine Early Warning Systems Network
FSNAU	Food Security and Nutritional Analysis Unit
FTS	Financial Tracking System
GAM	Global Acute Malnutrition
GFD	General Food Distribution
HMG	Her Majesty's Government
HRF	Humanitarian Response Fund (of OCHA)
ICRC	International Committee of the Red Cross
IDP	internally displaced person
IHL	international humanitarian law
IP	implementing partner
IPC	Integrated Phase Classification
IRK	Islamic Relief Kenya
KHRP	Kenya Humanitarian Response Plan
MAM	Moderate acute malnutrition
MAR	Multilateral Aid Review
MCH	Mother and Child Health

MOU	Memorandum of Understanding
MSF	*Medecins sans Frontières*
MUAC	Mid Upper Arm Circumference
NFI	Non food items
OCHA	(UN) Office for Coordination of Humanitarian Affairs
ODA	Overseas Development Assistance
OECD	Organisation for Economic Cooperation and Development
ORS	Oral Rehydration Salts
PCR	Project Completion Report
RMU	Risk Management Unit
RUSF	ready-to-use supplementary food
RUTF	ready-to-use therapeutic food
SAM	Severe Acute Malnutrition
SCUK	Save the Children UK
SFP	Supplementary Feeding Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme

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EXECUTIVE SUMMARY

Context

In the decade 1999-2008, Somalia received US$2.3bn of humanitarian aid from DAC donors, and Kenya US$1.5bn. Both countries suffer repeated droughts due to climate variability, punctuated in Kenya by frequent flood disasters, leading to much reduced availability of food. Some 5 million people across the two countries have inadequate access to food. In regions of both countries there is weak governance and social and political insecurity, compounded by serious on-going conflicts in South Central Somalia.

DFID is one of the largest humanitarian donors in Somalia, with total commitments and pledges in 2010-11 of over £30m (c. US$45m). In the same period, DFID committed £8m in Kenya. In addition to bilateral channels, humanitarian aid flows to both countries through country-level pooled funds. National Emergency Response Funds (ERFs) have been established in Kenya, designed to allocate funding to small-scale projects. In Somalia a larger, more strategic Common Humanitarian Fund (CHF) was established in 2010, providing funding to high priority, otherwise underfunded, projects through twice yearly allocations determined by Cluster Review Committees. In addition, the CHF has an emergency reserve of at least 20% to respond quickly to unforeseen emergencies. Funds are disbursed through Implementing Partners (IPs).

The value-for-money (VFM) criteria

Donors and IPs require value for money (VFM) benchmarks for a variety of reasons:

- robust and transparent decision criteria for accepting or rejecting bids
- a framework in which cost outliers can be subject to critical scrutiny
- an opportunity for reviewing the design and modalities of projects
- a budgeting tool
- a means of making choices between alternative options

The UK Government requires spending programmes of Government Departments including DFID to be justified according to the three concepts of *economy*, *efficiency* and *effectiveness*. These form a *results chain* which can be assessed at each of three stages, namely inputs, outputs and outcomes. *Economy* requires that cost per unit input (products, materials, etc) be kept within reasonable bounds. *Efficiency* dictates that cost per output (e.g. delivered service or product) be kept within an acceptable range. *Effectiveness* measures the cost of achieving the intended outcome of the activity (e.g. lives saved, enhanced livelihoods).

DFID's Business Case justifies decisions on the basis of five main criteria: strategic, appraisal, commercial, financial and management. The second of these – the Appraisal Case specifically requires that the chosen options should "deliver the intervention at optimal value for money". However, VFM criteria are relevant for all of the Cases, and can be applied at each and all stages of the full life cycle of humanitarian aid projects, including planning, approval, monitoring and ex post evaluation stages.

VFM metrics are usually written with their unit costs as the numerator. Thus *economy* is expressed as a unit cost of inputs (e.g. tonnes of wheat or rice); *efficiency* as a unit cost of outputs (eg. cost of the delivered good or service per beneficiary); and *effectiveness* as a cost per outcome (or impact). Of the three, the last is the most difficult to describe and measure with confidence.

The use of VFM metrics in humanitarian aid

There are many reasons why cost comparisons and benchmarking are difficult to make, and less illuminating than may be hoped. These relate in part to different budgetary procedures, costing

conventions and assumptions adopted by IPs. Despite progress on this front, well developed and standardised accounting practices are still not universally adopted, although several new agency-specific costing tools are now available.

Difficulties in making cost comparisons also relate to "real" factors such as the problems of comparing data taken from different time periods, and to unavoidable cost differentials in operating conditions on the ground and between different countries. Differences in logistics, access and transport can have a major impact on the costs of individual humanitarian operations. Furthermore, *ex ante* and *ex post* unit costs can also differ dramatically, due to factors such as the difference between the number of beneficiaries actually reached, compared with expectations and planning estimates. The need for immediacy of response and relief may in practice also override longer term VFM considerations. For these reasons, VFM metrics need to be used as part of a holistic approach to humanitarian projects.

The report gathers evidence from empirical studies in six sectors: nutrition, health, water sanitation & hygiene (WASH), food assistance (including the use of cash and vouchers), refugees, and shelter & Non-Food Items (NFIs). The broad humanitarian context for each of these sectors is summarized in the body of the report, along with some of the key benchmarks obtained from previous comparable cases, or other sources. The Library of Results in Annex 1 contains a detailed description of the sources used.

Recommendations

- VFM metrics for the economy and efficiency criteria are the most robust and widely available, and it would be sensible for DFID and its partners to concentrate their resources on developing these, in the first instance.

- It is preferable to present evidence on cost benchmarks for VFM in the form of ranges or scatters, rather than as averages or single number norms.

- Donors and agencies should use presentation formats that enable key explanatory factors for costs to be clearly identified.

- Linked to the previous point and reflecting the principles of Good Humanitarian Donorship, there is a need at global level for donors to improve their coordination of their format requirements , for which there is currently great variation.

- The broader aspects of VFM need to be presented along with the metrics: these include assessment of the IP's procurement and budgeting procedures, its track record, innovation and specific (and possibly unique) value-added, and the timeliness, appropriateness and likely effectiveness of its actions, amongst other factors.

- The comprehensive database of 'Costs Observed for Results' being developed by ECHO is a valuable potential resource for humanitarian aid practitioners, to complement and strengthen the "light touch" and more informal approach used by DFID and some other donors.

- The Library of Results started in Annex 1 of this report should become an e-Library, regularly updated and replenished, ideally by a dedicated professional working with humanitarian advisers and practitioners. One option is to link the e-Library with the sector clusters operating in both countries, comprising agencies from both the UN and NGO systems, and already engaged in setting standards and costing benchmarks for collective use. DFID should seek advice on modalities for collecting, storing, analysing and disseminating the data to optimise use of this e-Library.

- Partners should work towards common approaches to the attribution and presentation of costs, following the example of the Somalia CHF in setting standard margins allowable for administrative overheads. Similar agreement is desirable on the treatment of total project costs, value-added, valuation of goods and services in kind, annualising costs, etc.

- Due to the environments they operate in, humanitarian projects tend to have uncertain outcomes, often very different from those expected. This uncertainly can be dealt with in several ways.

- Proposals can be presented in the context of several possible scenarios, each with different cost implications.

- Components can be identified that are particularly crucial to the success of the project (*sensitivity analysis*) and the costing effort should focus on these, at key milestones

- Alternatively, agencies' costing systems could be geared up around the interim milestones used in project log frames, so that the costs of different elements (inputs, or interim outputs) of the project could be monitored during implementation, and due changes made in mid-course. This is the approach being piloted by DFID Pakistan, which is potentially very beneficial, but which does require a high level of donor monitoring, as well as an appropriate type of cost accounting by the IP. DFID needs to consider, together with its IPs, how feasible this approach would be for Kenya and Somalia.

- While DFID and other donors obtain important benefits from using common pools such as the CHF in Somalia, they should press for greater justification of the Managing Agency and other fees charged in relation to the specific services being provided. There is particular concern whether sufficient monitoring and evaluation is being provided in return for the fees.

- Once aid is channelled through pooled funds, demonstrating VFM falls to the sector Cluster Review Committees (in Somalia). While some variation should be expected between the different clusters to reflect their different subject matter, DFID can reasonably expect certain common criteria to be present in all, and that the VFM metric (cost per beneficiary) be used consistently. This should be taken up with OCHA and the UN Humanitarian Coordinator.

THE CONTEXT OF HUMANITARIAN AID FOR KENYA AND SOMALIA

1.1 The Global Context

Globally, humanitarian aid amounted to almost US$17bn in 2009, of which US $11bn was donated by governments, the vast majority from members of the OECD's Development Assistance Committee (DAC). The top ten governmental contributors accounted for over 90% of total contributions in 2008, with the US, UK and EU accounting for about 50% of the total. Both government and private contributions have fallen sharply since 2008, but remain higher than in 2006 and in 2007. Humanitarian aid has averaged just over 8% of total Overseas Development Assistance (ODA) since 2000, though its volume and share of total aid fluctuates from year to year.

Between 1999 and 2008, Somalia received US$2.3bn of humanitarian aid from DAC donors and Kenya US$1.5bn. Somalia featured as a "top 5" recipient of DAC humanitarian aid in 2008 with US$563m, while humanitarian spending has also increased in Kenya, particularly due to increases in US donations.

Unlike non-DAC government donors, DAC governments tend to channel humanitarian spending through relief agencies (Implementing Partners – IPs), rather than directly to recipient governments. The majority of their IPs are multilateral (particularly UN) agencies. By contrast, non-DAC governments have traditionally channelled the majority of their humanitarian spending bilaterally through governments, although this pattern is changing, with UN bodies becoming a more favoured route in recent years.

The UN through its agencies, funds and organisations is collectively a major humanitarian player. The World Food Programme (WFP) alone had US$4.6bn available for humanitarian work in 2008. The five UN Agencies (the United Nations Children's Fund (UNICEF), UN High Commissioner for Refugees (UNHCR), UN Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), and the Food and Agriculture Organisation (FAO)), have collectively reported a humanitarian budget for this year of US$7.6bn, representing nearly half of total funding. Some 98% of donations to the UN agencies come from governments, principally through the UN's Consolidated Appeals Process (CAP) which is coordinated by the UN Office of Coordination for Humanitarian Affairs (OCHA). Within this total there is considerable variation between the different UN agencies.

The International Federation of Red Cross and Red Crescent Societies is probably the biggest world disaster response organization with a unique network of 186 national societies and a presence in almost every country in the world. Over 65% of its resource came from private sources through its national agencies. By contrast, over 90% of funding of the International Committee of the Red Cross comes from government and EU sources.

1.2 Kenya and Somalia: the needs

The key humanitarian issues in Kenya and Somalia are summarised in Box 1.1.

Figure 1.1 Snapshot of humanitarian situation in Kenya and Somalia

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Kenya: Headline Facts

- Kenya is ranked 147 of 182 on the Human Development Index.

- Due to climate variability, Kenya endures repeated drought and flood disasters, sometimes simultaneously.

- Food insecurity is characterized by reduced access and availability of food for millions of people. As of January 2011, following the short rains assessment, 2.4 million people are estimated to be highly or moderately food insecure, up from 1.6 million in December 2010.

- The Arid and Semi Arid Lands (ASAL) areas of Kenya in North and North Eastern regions are particularly affected due to the effects of recurrent severe droughts exacerbated by decades

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of neglect by the central authorities.

- Socio-economic inequalities, uneven development, and the impact of the global financial crisis combine to deepen poverty. Urbanization has expanded and vulnerability levels in cities have worsened.

- Political and social instability leaves constant lingering ethnic tensions.

- Regional instability related to the crisis in Somalia has resulted in ever increasing numbers of Somali refugees fleeing to Kenya. As of January 2011, Kenya is host to 441,813 refugees of which 363,668 are from Somalia[1].

Somalia: Headline Facts

- The operational environment is characterized by shrinking access, consecutive seasons of drought and unprecedented funding shortfalls.

- As of January 2011, an estimated 2.4 million people or 32% of total population in Somalia are in Humanitarian Emergency or Acute Food and Livelihoods Crisis, an increase of 20% over the last six months. This increase is partly due to food insecurity caused by poor rains, civil insecurity and displacement[2].

- Some 75% of the people in need are concentrated in South Central Somalia, where most of the conflict is taking place and humanitarian space is shrinking.

- The main areas of concern are the central regions which have suffered eight consecutive seasons of below average seasonal performance.

- Humanitarian access remains extremely limited in South Central Somalia with most international organisations forced to operate through local partners except in a few locations. In northern Somalia, humanitarian organisations have been able to operate without major disruptions as the overall security situation has remained calm.

[http://ochaonline.un.org/somalia]

1.3   Kenya and Somalia: humanitarian aid funding resources

Country level pooled funds, and the Central Emergency Response Fund (CERF), have been established to improve the coherence and equitable distribution of humanitarian aid, although the funding for these is provided by a relatively small group of donors, of which the UK is the largest. In 2009, Kenya received 6-7% of total CERF funding, and Somalia 15%.

At country level, in Somalia, the Humanitarian Response Fund (HRF) was upgraded to a larger more strategic Common Humanitarian Fund (CHF) mid way through 2010. This fund provides funding to high priority underfunded projects in the CAP through twice yearly standard allocations. In addition, the CHF has an emergency reserve of at least 20% available funding to respond quickly to unforeseen emergencies.

In Somalia, Cluster Review Committees have been established for each cluster to review proposals for inclusion in the CAP and to prioritise projects for the CHF. Membership is drawn from UN agencies, international NGOs and national NGO with equitable representation of each of the three groups. These Committees are technical review bodies within the cluster system committed to commonly agreed standards and working to produce agreed costing benchmarks. The UN Office for the Coordination of Humanitarian Affairs (OCHA) has separate offices for both Kenya and Somalia, and, for the latter, plays a key role in supporting the Cluster Review Committees.

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[1] UNHCR Statistical summary Feb 2011
[2] FSNAU Post Deyr 2010/11 Food Security and Nutrition Analysis Technical Report#

In Kenya, the Emergency Response Fund (ERF) has supported 10 projects since its inception in June 2009. In total, the ERF has received USD 2.5 million from Sweden and Norway.

Humanitarian flows to Kenya and Somalia in recent years are depicted in Table 1.1.

Table 1.1 Humanitarian aid to Kenya and Somalia, 2000-2009 (US$ Million)

Country	Years									
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Kenya	77.3	91.3	95.9	78.1	92.7	86.6	252.9	196.4	304.1	378.9
Somalia	86.1	104	136.8	144.5	162.3	200.9	333.9	283.2	566.7	323.8

Source: GHA 2010, p. 126

UN CAP funding requirements for Somalia 2004-2009 show a total funding requirement of US$2.5bn compared with funding received of US$1.7bn.(corresponding to per capita levels respectively of US$233.7 and US$159.3). The Somalia consolidated humanitarian appeal for 2011 is seeking USD 529 million for 229 projects to respond to the most urgent humanitarian needs. This is equivalent to a funding request of USD 265 per beneficiary.

According to the Financial Tracking System (FTS) for Somalia, as of March 2011, DFID's total committed humanitarian aid was USD 11.9 million with an additional USD 24.3 million pledged. Other major donors are the European Commission, Japan, and the UN CERF.

For Kenya, as of November 2010, the FTS reported total contributions of USD 390 million for humanitarian aid through the Emergency Humanitarian Response Plan (EHRP). A large proportion of funding has been allocated to multi-sector assistance for refugees. Food aid, nutrition and coordination sectors have also been well funded to over 50% of total requirements. Allocations to Agriculture and Livelihoods, Education, Health and Protection sectors have been poorer, with these sectors receiving 30% or less.

In 2008-09, DFID spending on humanitarian aid in Kenya was £13.5 million which is 2.83% of total DFID spend in these years. For Somalia, the equivalent figures are £20 million or 4.21% of DFID's total[3]. Funds allocated for the two countries in FY 2010-11 are £30 million, making DFID the largest bilateral humanitarian donor. In addition, DFID provides 17% of CERF and 16% of ECHO.

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[3] "DFID's Expenditure on Humanitarian Assistance 2008-09". Internal DFID paper

2 VALUE-FOR-MONEY (VFM) IN THE BUSINESS CASE

2.1 The 3Es and 3 decision rules

The UK Government requires the spending programmes of Government Departments including DFID to be justified according to the three concepts of *economy, efficiency* and *effectiveness* (the"3Es"), which form a *results chain* depicted in Figure 2.1. VFM can be assessed at each of the three stages, namely inputs, outputs and outcomes.

Figure 2.1 VFM in the results chain
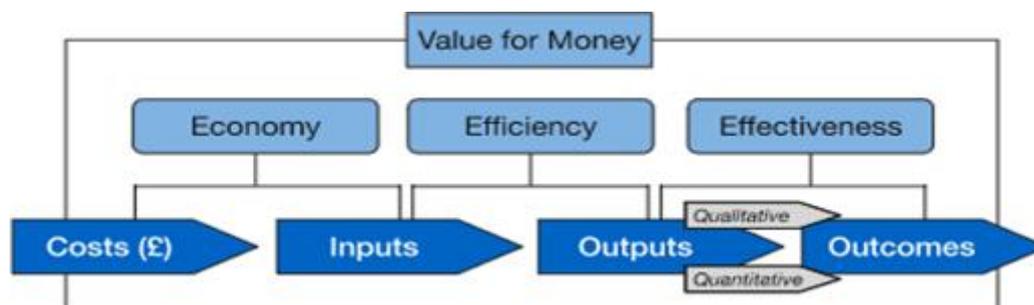
Economy requires that the cost **per unit of input** (e.g. products, materials, fuel, transport, salaries) be minimised, or at least kept within reasonable bounds.

Efficiency dictates that the **cost per output** (e.g. delivered complete service or product, completed structure, person attended to, training course completed) should also be minimised or kept within an acceptable range.

Effectiveness measures the **cost of achieving the intended outcome** of the activity (e.g. lives saved, DALYs gained, improved health, greater security, enhanced livelihoods). Outcome can be expressed simply as "what will change as a result of the intervention, and who will benefit".[4] It should be noted that the direct outcome of a project is not the same as its *impact,* which is acknowledged to be a "higher order, longer term issue" dependent on other factors external to the project.[5]

Some agencies refer to "cost per result", which could apply to either an output or an outcome. For consistency, and to avoid confusion, in this report data produced by such agencies will either be described as "cost per output" or "cost per outcome", depending on context.

2.2 The case for using VFM in Humanitarian Aid

VFM measures can serve a number of purposes for both donors and Implementing Partners (IPs):

- *As robust and transparent criteria enabling donors to evaluate (accept or reject) bids.* At present, a number of governments, including Her Majesty's Government (HMG), are applying stricter criteria to all forms of public spending, including development and humanitarian aid. Ministers are answerable for the economic, efficient and effective use of taxpayers' money, especially in fragile states and other unstable social and political situations where scope for financial abuse is considerable. In a very basic application of this criterion, the approving agency can choose between otherwise similar projects on the basis of lower unit costs[6].

- *A framework in which cost outliers can be questioned and justified.* Governments and donor agencies need to be able to justify programmes that appear *prima facie* to depart from normal cost criteria. In many cases there are good reasons for unit costs to appear outside the

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[4] DFID *Writing a business case: How-To Note, Dec 2010*
[5] *Ibid.* p. 3
[6] This is the intended practice of the IASC WASH Cluster Review Committee for Somalia for 2011 CHF allocations

normal range A robust VFM framework will provide a sound evidence base for evaluating such cases. This includes scrutiny of unit costs that are *lower* than what might be expected, , in case they reflect poor standards of service or products.

- *An opportunity for reviewing the design and modalities of projects to make them more appropriate.* Where cost benchmarks at the planning stage fall outside the typical range, this may be a signal to review features of the project which might subsequently be changed. In one actual case, discrepancies between the unit costs of latrines in two parallel projects revealed that one bidder was deploying the wrong specification. In another case, comparisons of unit costs of different components across several refugee camps led to revisions which made the treatment of people in separate camps more equitable. According to evaluators of humanitarian operations in Rwanda, cost-efficiency analysis yielded useful insights into food logistics, water supplies to refugees, airlifting, and the cost of military components.[7]

- *A tool for budgeting.* Both donor agencies and IPs need a robust and transparent basis for estimating the likely costs of interventions. Many IPs already have internal financial systems which permit the allocation of costs to specific cost centres. Added to this, information contained in a cost/unit output ratio produces an output to outlay calculation. Instead of an emphasis on pushing costs (per unit) down, with its connotations of a "race to the bottom" and "getting something on the cheap", the same information can support the aim of making scarce money go as far as possible in saving lives and alleviating suffering. A good example is the Centre for Disease Control CDC (CDC) Evaluation of Child Health Days in Somalia, which expresses the returns on $1 million invested in different solutions in terms of the number of children's lives saved by different approaches.

- *A decision tool for making choices between alternative options.* The cost per outcome metric is a standard method of project appraisal, aimed at minimising the cost of producing a given outcome. Where it is feasible to place monetised values on benefits, cost-benefit analysis can also be used to choose alternatives which promise the highest benefits in relation to their costs. In the above mentioned CDC Evaluation, the data are used to demonstrate the superior economic returns from the use of pentavalent rather than DPT (diphtheria, pertussis tetanus) vaccines for both rounds of the CHDs. The Humanitarian Emergency Response Review (HERR) observes that UK surgical teams cost one-hundredth of the UK search and rescue teams (little over £2,500) per life saved in Haiti.[8] This does not imply that search and rescue operations do not take place, rather that, where decisions are taken about allocating funds at the margin between different types of programmes, surgical units may be better VFM.

2.3   VFM in the DFID Business Case

The Business Case

The new structure adopted by DFID's Business Case for the choice of projects is based on Her Majesty's Treasury's "five case" model. Decisions need to be justified on five main criteria – strategic, appraisal, commercial, financial and management, which are developed in an iterative fashion.. The use of VFM in each of the Five Cases is summarised in Table 2.1.

Table 2.1 VFM in the DFID Business Case

Case & contents	Type of VFM information for humanitarian aid
1. Strategic Case	Cost per outcome of different interventions possible for

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[7] Hallam, 1996, Bradly, 1999
[8] HERR (*Humanitarian Emergency Response Review)* , 2011, p. 47

Context; justification; impact & outcome	meeting the objective
2. **Appraisal Case** Critical Success Criteria; feasible options; Theory of Change & logical frameworks; appraisal of options – costs, benefits & risks; VFM	Unit cost of principal inputs; Cost per output; Cost per outcome (*ex ante* estimates, relative to accepted norms)
3. **Commercial Case** Procurement; competition & markets; cost drivers & value-added; monitoring of contract & suppliers' performance	Demonstration of the "procurement policies, capacity, and outcomes" of chosen agency
4. **Financial Case** Costs of project; sources of funds; arrangements for monitoring, reporting & accountability	Justification of financial charges levied by IPs and common funds
5. **Management Case** Oversight; management; monitoring & evaluation; risk assessment	Justification of choice of Implementing Partner by reference to previous costs per output and outcome, relative to norm; Justification of use of, or support to, common pools or services, in comparison with bilateral effort; Reference to evaluations, audits or reviews of IP or other chosen agency that contain evidence on its VFM.

The **Strategic Case** needs to justify the proposed intervention on the strength of its expected outcome and impact. Different types of response to an emergency may have radically different VFM in terms of cost per outcome. This is the place to justify projects that would be sufficiently effective and timely (i.e. of the required *quality*) even if they were more costly than others which were likely to be less effective. Air-freighting may be more costly than road transport for delivering food, but speed of delivery may be an overriding consideration.

The **Appraisal Case** specifically requires that the chosen option should "deliver the intervention at optimal value for money". The quality issue can be revisited here: the Appraisal Case includes "critical success criteria", which could for instance include timeliness and standards of care. The Appraisal Case includes the assessment of value-for-money (VFM), alongside other option appraisal methods such as cost-benefit analysis. VFM information may include unit costs ("probably at input and output levels"), unit cost comparators, and "qualitative assessments of difficult to quantify items"[9].

The Commercial Case requires demonstration of the "procurement policies, capacity, and outcomes" of the agency chosen for this purpose. VFM in this case has to be demonstrated on qualitative assessments of the systems and procedures used by the proposed delivery agency.

VFM in the **Financial and Management Cases** could arise over the overhead charges or cost-sharing arrangements with implementing partners, or with the appropriate size of DFID's contributions to common pools or services.

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[9] DFID, ibid. p. 11

3   PUTTING VALUE-FOR-MONEY INTO PRACTICE

3.1   3.1. VFM in the proper context

Whilst there is a strong impetus amongst the donor community for the use of VFM, there is also recognition that the context for humanitarian aid is complex and variable. Any criteria applied should be used flexibly and leave space for judgement allowing for special factors and changes, often rapid, in the local situation. In the terms of one analyst:

"…quantitative evaluations of humanitarian aid will never be sufficient alone. While adding to the rigour of evaluations, the specific geographical, political and operational context in which operations are conducted necessitates qualitative judgements of aid effectiveness. Hence cost-effectiveness and cost-efficiency analysis should only be viewed as a support to qualitative opinion and not as the ultimate measure of success or otherwise." (Bradly 1999, p. 10)

The cost-effectiveness criterion is one amongst a number of other important criteria that come into play in humanitarian planning. Cost-effectiveness is rarely the most important decision factor. The cheapest intervention is not necessarily the best or most effective, nor is the most expensive the worst *per se.* As the HERR states,

"Value for Money is about the optimal use of resources to achieve the intended outcomes. It is about the optimum combination of costs and quality of the goods and services to meet the needs of beneficiaries……it is not just about the lowest cost" (p. 51) "Quality and speed – two key parameters of humanitarian effectiveness – cannot be assessed by output measurement. There is a danger by focusing on one area of the results chain of hitting the target but missing the point" (p. 53)

The search for cost-effectiveness should never lose sight of the broader picture, including the technical capacity of the IP concerned, the historical presence of the IP in the region affected, DFID's internal rating of the IP[10] , and above all the relevance of the proposal to the needs of the situation – the region, sector, targeted beneficiaries, the adoption of innovative approaches, and the proven effectiveness of the proposed intervention.

The Cluster Review Committees' criteria for the approval of projects for CHF allocation in Somalia typifies a pragmatic and holistic approach. For nutrition, the criteria include the region of priority, degree of coverage, the presence of complementary preventive activities, capacity building, and a general criterion of priority, as well as cost per beneficiary. The WASH Cluster follows a more limited approach to the cost metric, which only comes into play in deciding between projects that otherwise have equal scores on all other criteria.

VFM should therefore be applied in a broad context which includes, but is not limited to, the metrics presented in the following sections. Specific aspects of VFM which are more difficult to capture in metrics include:

- the appropriateness of the intervention strategy (e.g. short term "quick fix" vs. a longer term multi-sectoral community approach) ,

- the timing of the intervention (e.g. seeds and tools distribution may be the most cost effective intervention but will be of no value if delivered after the planting season),

- the delivery mechanism, where the choice might be between INGOs implementing directly with high international technical support costs, rather than the use of local partners with technical back up, or the third option of a smaller local NGO with little technical expertise or

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[10] As in the recent DFID Multilateral Aid review, which rated agencies by their organisational strength vs the contribution of its mandate to DFID priority objectives

back up but with a strong niche position in the local community. The specific "value added" of individual agencies comes in here.

- Other specific requirements of the local humanitarian, social and geographical situation.

3.2   VFM in project appraisal

VFM cost benchmarks are already being used in a number of humanitarian agencies active in Kenya and Somalia. Some agencies (e.g. DFID, UNICEF) use informal benchmarks derived from experience; others (notably ECHO) are developing benchmarks from a systematic review of their past projects across a range of countries. Many IPs also use benchmarks for their own internal planning and budgetary purposes, particularly for the unit costs of standard inputs.

VFM benchmarks are useful, but need to be interpreted by people with the appropriate experience, technical expertise, and knowledge of the region in question. Box 3.1. illustrates the good use of VFM data by one donor in reporting on the performance of an agency .

Figure 3.1 Conclusions from an Actual Donor Project Completion Report[11]

Agency A reached 200,000 people with water at an estimated cost of £1.3 million; and 250,000 people with shelter for an estimated cost of £1.7 million. The separate activities comprising the main programmes were water filters, well cleaning, water supply system rehabilitation, water trucking and a water treatment plant. Since costs cannot be fully attributed to each of these activities (or outputs) an **aggregate cost per output is estimated for the whole water programme of £6.5 per person.**

Based on experience in the country concerned, £1 million should be enough to reach 100,000 people, representing £10 per person. Anything less than this is good, anything more raises questions: so £6.5 per head is at first sight very acceptable. Furthermore, since Agency A is normally considered to be relatively expensive, their overall unit cost is less than might be expected. This is judged to be due to their strategy, which focuses to a greater extent on rehabilitating water systems (with each one reaching approx. 9,000 people per unit), and the easy distribution of water filters, as opposed to rehabilitating individual wells and water points (with each water well reaching in this region approx. 173 people per unit). Agency A has prioritised economies of scale, reaching the most people with the most effective intervention, as compared to other operations.

In country X, rehabilitating *water systems* in district J, compared to rehabilitating *wells* in district K is much more cost effective. Cleaning a water system reaches more people, more quickly, than by painstakingly going from well to well, helping 174 people on average and needing to deploy a massive number of teams and requiring a big operational structure. However there are fewer water systems to rehabilitate in district K than in J so this is not an option for those working in these areas.

The unit cost for shelter is £6.8 per person. 1,000 tents were distributed at a unit cost per tent of c. £120 GBP for a family, totalling £120,000. 27,000 shelter kits were bought at a unit cost per family of c. £50, totalling £1,350,000.. Adding £350,000 (20%) for overhead support costs for the operation, which is considered acceptable in the circumstances, produces a total for shelter of £1.7 million.

The overall judgement that this operation by Agency A represents good VFM is based on the following:

- Agency A reached its target with the activities set out in its schedule, which matches its proposal).

- Its budget and costs were not excessive according to their overall VFM metrics, and its operations were based on sound strategy.

- Other agencies would be unlikely to perform as well as Agency A in the particular operational

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[11] Not in Africa. Names of the country, donor, agency, and districts are withheld. The actual numbers are not necessarily appropriate for use in Kenya and Somalia, without further examination.

> circumstances, with the same scale, reach and scope of Agency A.

3.2.1 Choice of VFM metrics

The metric will differ according to which of the 3 criteria it addresses- economy, efficiency or effectiveness. VFM metrics are usually written with their *unit costs* as the numerator, but it is equally valid to express the same information stressing the *results* from financial outlays – in other words, maximising the number of beneficiaries (the "amount of good") produced by a given amount of money.

Metric 1 Economy – Unit Cost of Inputs

Products and services with standard and easily defined characteristics lend themselves to comparison on the basis of their *comparative costs per unit*.

Examples include nutrition products (e.g. 1 carton of RUTF), tonnes of wheat or rice, 200 litre drums or 20 litre jerry cans of drinking water, vaccines, daily rate for unskilled wage labour, cost of transporting 1 tonne of produce per km., etc.

These values are readily available from databases kept by donors and agencies, and most proposals contain this information in their budget breakdowns. These data can readily be supplemented from internet searches, or by checking with commodities brokers, shipping agents, and other market specialists.

The actual numbers may be less important than the procurement process followed. If it can be demonstrated that the goods and services are bought following a competitive tender in a well-functioning market, this itself is *prima facie* proof of VFM.

Another potential assurance of VFM are *internal benchmarks* from the budgeting planning process used by IPs themselves. Preparing spending forecasts and budgets for proposals normally draws on relevant data from previous projects. The quality of IPs' internal budgetary systems can be established during routine audits. Some agencies[12] go further than this, in maintaining interactive global databases with the capability of "optimising" procurement on the basis of current and recent transactions.

In conclusion, VFM at the *Economy* (unit cost of input) stage can be assured through a combination of checks on unit costs of standard products and services, and monitoring of agencies' procurement and budgetary processes.

Metric 2 Efficiency Unit Cost of Outputs

The review of evidence in Chapter 3 reveals that the most common metric used at this stage is the *cost per beneficiary (eg* severely malnourished child*,* family in receipt of food assistance, individual person or family receiving potable water and sanitation, numbers receiving protection services in refugee camps, etc). This metric depends on good estimates of beneficiary numbers just as much as those of costs of provision. There is evidence that the *ex ante* estimates of the number of beneficiaries often turns out to be wrong, sometimes spectacularly. It follows that, where estimated cost per beneficiary is a key metric in the allocation decision, at least as much scrutiny should be given to the estimates of beneficiary numbers as to the cost of provision. With this reservation, the *cost per beneficiary* metrics reviewed in chapter 3 and Annex 1 are relatively robust and commonly available.

For certain sub-sectors (water supply, food assistance) an alternative to the direct provision of the goods and services is to issue vouchers for the purchase of the items by the beneficiaries themselves.

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[12] E.g. OXFAM's *Helios* system

In certain circumstances[13], this may prove to be a more efficient way of delivering the items concerned. This method is a transparent way of delivering services, since it monetises the cost estimate up-front. Cash and voucher schemes include cash grants, cash for work, vouchers given to individual households (rather than to governments and communities). Cash and voucher-based approaches can be more cost-effective and timely than aid-in-kind in humanitarian crises. Other perceived benefits are that cash aid better preserves the dignity of individuals, and that it has beneficial knock-on effects in stimulating local markets and production.

Metric 3 Effectiveness – cost per outcome (or impact)

Outcomes of humanitarian aid ("what will change and who will benefit"[14]) are less easy to describe with any confidence, compared to its direct output(s). As the HERR observes, "…assessing the outcomes of DFID's funding and influencing is far more complex than measuring outputs….quantitative assessments are a step more difficult than qualitative ones." (p. 53). There is a further discussion of this in section 3.4.

3.2.2   Using Benchmarks

In preparing their funding bids for humanitarian projects IPs make their best estimates of costs, which can be expressed in one or more of the VFM metrics discussed in the previous section. How can this information be evaluated? What benchmarks are available to determine the VFM of the proposal?

A benchmark is "a point of reference against which things may be compared or assessed"[15]. Benchmarks can be drawn from eclectic sources of evidence[16], including:

- Averages, or typical ranges, from earlier projects of a similar type, or from comparable projects in other countries;

- Informal Rules of Thumb developed by professionals from their experience in humanitarian operations

- Standards promulgated by agencies with a strong track record in the sector concerned

It can be misleading to use benchmarks drawn from different time periods and widely different regions. Costs can change over time due to inflation, exchange rate movements, changes in technology, and developments in humanitarian good practice. Even within the same region of a continent, costs can differ widely between countries[17]: this is even more true across a continent such as Africa, and between different regions of the world.

VFM benchmarking has to tread a line between two extremes, one of which risks destroying the credibility, and the other the usefulness, of the exercise. Relying on benchmarks that are too crude, and which are produced by averaging non-comparable cases, will destroy the credibility of the benchmarks amongst serious professionals, and could lead to undesirable distortions in the design of humanitarian aid programmes. At the other extreme, taking full account of the specific factors in each individual programme to "explain" its resulting unit costs would reduce the utility of the benchmarks as a decision tool for donor officials, with difficult decisions to make on allocating funds under time pressures.

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[13] though not all- there is a growing literature indicating the potentially complex impact of this instrument.
[14] DFID, *Writing a business case,* p. 3
[15] *New Oxford Dictionary of English.*
[16] Another potential source is *meta analysis* of a large number of cases, with all the possible explanatory variables "controlled" to eliminate factors extraneous to the situation in question.
[17] Costs bear little correlation with incomes per head. In a bizarre, but not unique, case, Luanda, capital of Angola (which until recently was classed as a fragile state and which still has UNICEF WASH programmes) is rated the world's most expensive city (*the Economist,* 12 Feb 2011, p. 58)

The approach favoured in this report is to:

- Present the range of cost data emerging from broadly comparable humanitarian aid cases, including outliers. Where they are available, ranges and scatters are considered more useful than single-figure averages[18]. Chapter 4 illustrates some of the benchmarks obtained, and Annex 1 presents these with supporting detail for the 6 chosen sub-sectors.

- Develop a framework for presenting explanations for the observed unit cost levels, and their variations, that help donor agencies to make a more informed VFM judgement on specific cases. This topic is introduced at a general level in section 3.2.3 below and explored in a sub-sectoral context in Annex 1.

A few simple **desiderata** for benchmark comparators can be stated (Box 3.2)

Box 3.2. Desirable features of benchmarks

- from *countries* with similar relevant characteristics (ideally, the same country)

- from a similar *time period*, in which prices and exchange rates have not changed greatly, and for which humanitarian aid practices are broadly unchanged

- from the same *agency* (other interventions of the same type in recent years or in other comparable situations) or from comparable agencies offering similar programmes

- for the same *category of intervention* (avoiding benchmarks which are averages of several different types of intervention within the same combined programme)

3.2.3   Why Unit Costs Diverge

The metrics in a proposal can diverge from benchmarks for any or all of five main reasons, illustrated in figure 3.1 and further explained below.

Figure 3.3. Reasons why metrics may diverge from benchmarks
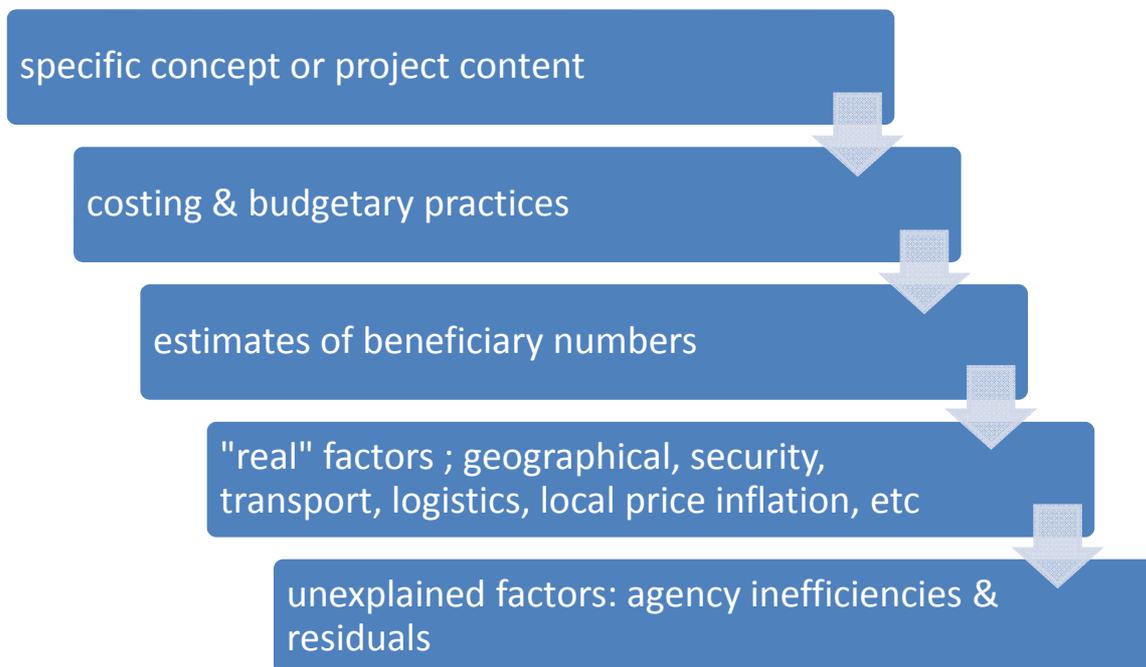
Project concept & content: "apples and pears"

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[18] In statistical terms, a curve of normal distribution contains more useful information that a single mean

The *concept* or *content* of the project may, on closer examination, be sufficiently different from the comparators making up the benchmarks to account for cost differences. Different interventions may have differing "values" to the beneficiaries, depending on the type and standard of service, product and delivery. In WASH, for instance, agencies that use permanent water sources offer a different quality of service than those offering water from mobile sources – both may be considered appropriate responses to specific circumstances, yet they clearly differ in quality, and in cost. In such cases, the unit cost benchmark will be very sensitive to the time horizon chosen, and the life of the installation.

Over time, humanitarian practices may change, which invalidates a straightforward comparison of their unit costs between two different years. A telling example is the recent shift from inpatient treatment of severe acute malnutrition (SAM) to management of uncomplicated SAM cases on an outpatient basis. This has significant bearing on costs, and invalidates comparisons based on earlier data.

Humanitarian relief is part of a spectrum of activities, including disaster risk reduction (DRR) and long term, sustainable development. In such cases it may be fairer to apply different criteria to projects offered by different agencies that are at different points on this spectrum Over the longer term, a narrow focus on *relief* can be economically inefficient and entail greater financial costs. In a simple but actual example, an agency with a 12-month time horizon and a mandate for relief, narrowly construed, will rent vehicles, even if it means repeating the process later: an agency taking a multi-year stance may find it better VFM to purchase them.

At an equally practical level, the unit costs presented in bids will contain assumptions about the length of life of fixed installations, and will spread investment costs over the life of the item. For water supply and latrines, assumptions about the lifespan of the works concerned will make a big difference to the annual unit costs, and should be made explicit in order that accurate comparisons can be made. Agencies may become drawn more deeply into capacity building of various kinds, with higher short term costs, but the promise of making their programmes more effective and sustainable, especially where they are likely to be repeated.

Costing and budgetary practices

Several issues cause difficulties – administrative overheads, value-added, full costing, and life cycle costing, amongst others. Issues in this category do not reflect "real" cost factors, but specific accounting or budgeting practices which prevent the creation of a "level playing field" for the comparison of bids from different agencies.

Overhead costs. The allocation of overheads and the size of administrative charges is not an easy task, where agencies are of different types, working at different scales, with different sources of funding, and under different legal and constitutional constraints. Donors often have multi-annual framework agreements with major IPs which include allowable overheads, at least for their HQ operations. Funding from bilateral donors to the EU, UN and other international agencies are also subject to specific accounting conventions, agreed at headquarters level. Other donor-IP agreements are *ad hoc.*

 The CHF for Somalia has established budgetary ceilings for three categories of eligible expenditure: direct costs (unlimited expenditure), indirect administrative costs (maximum 7%), and operational support costs (maximum 10% of direct costs). Personnel at both field and Nairobi level must not exceed 10% of direct project costs. Although this level of administrative overheads may not reflect the needs of all IPs, the benefits of attempting to refine it are uncertain.

Value-added is applied to situations where IPs provide technical services using supplies and other inputs free or below cost from other agencies. This is a common arrangement for food (typically supplied by WFP) and nutritional products (often provided by UNICEF). Bidders are asked to identify the element of their own value-added in the full cost of the delivered product or service.

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Use of common public services. IPs may be required to integrate their services with those of the host government. Although this may save costs in some cases, it may equally increase costs, if extra training, or additional incentives are involved.

Full costing. Typically, an IP receives funding from several sources. When presenting a bid to a specific donor, some IPs only include the costs of that bid in their VFM metrics, thus understating true costs. Bids should include the total costs of the proposed intervention, including funding from all sources.

Life cycle costing. Capital equipment and infrastructure typically have multi-year operating lives. Where all bids meet the same specification (e.g. 10 Land Rovers, 1000 latrines of a certain type) this is not a serious issue, but where bids differ in their solutions and equipment specifications life-cycle costing may be appropriate. This would allow fair evaluation of bids with different combinations of up-front capital costs and on-going maintenance and operating outlays, and capital items with different longevities. For items of infrastructure, buildings and equipment which provide valuable services over a number of years, some accounting for residual values would only seem fair, compared with relief packages that deliver their value over shorter periods.

Agencies could work towards applying a uniform allowance for administrative overheads, permitting a standard margin for physical and price contingencies, and agreeing annual depreciation and capital recovery factors for long-lived items.

Estimates of beneficiary numbers

The most common way of scaling humanitarian aid costs is in relation to the estimated potential number of beneficiaries. In typical humanitarian situations, which include sudden-onset emergencies, civil unrest, atrocities, migrations, etc. this is subject to wide margins of uncertainty. In shifting populations such as pastoralists or refugees on the move, infrastructure and settlements created for an initial target population may become underused as people move on. Conversely, they may be swamped by later arrivals.

These factors mean that *ex ante* cost per beneficiary metrics can be very different from those arising *ex post.* Agencies which make different assumptions about their likely beneficiaries produce different and non-comparable unit cost estimates: those that make conservative assumptions about numbers put themselves at a disadvantage compared to others (Figure 3.4).

Figure 3.4 *Ex ante* and *ex post* discrepancies in beneficiary numbers

In an internal analysis of "expected" with "actual" beneficiaries of its nutritional projects in 2001-2, the European Commission Humanitarian Office (ECHO) showed significant differences between the two in most cases, and large diferences in a sizeable minority of them. Out of 39 projects for which data were available, the actual number of beneficiaries exceeded expectations in 9 of them, but in 30 cases it fell short. In 14 projects (more than one-third of the total sample) the actual number of beneficiaries was less than 50% of that expected and planned for: in these cases the unit cost per beneficiary on the basis of which bids were approved would have been underestimated by 50% or more.

ECHO: internal analysis Sarah Devisme, *Le « coût-efficacité » des projets de nutrition financés par ECHO dans les pays ACP.* ECHO Bruxelles, 31 juillet, 2003

Although the exercise reported in Box 3.2. shows *ex ante /ex post* discrepancies in both directions, there is clearly an "optimism bias" in agencies' expectations. In other words, where there is genuine uncertainty about the actual number of beneficiaries, agencies tend to exaggerate their numbers. This is understandable in terms of contingency planning (building in a safety margin), but for the sake of fair and consistent assessment it would be preferable to present data in different scenarios, i.e. presenting estimates within a range of maximum, minimum and most likely numbers of beneficiaries.

"Real" cost factors

Many of the costs of humanitarian aid projects are location-specific. Furthermore, unit costs for most services benefit from economies of scale and agglomeration, and are likely to be lower in large, concentrated and settled populations than in small scattered settlements, or amongst target groups that fluctuate in size. Important cost factors are logistics, access and transport , local climate and geography, monitoring arrangements, social customs, and the quality and reliability of complementary public services, amongst others.

Logistics, access and transport. In Central & Southern Somalia and North East Kenya transport, access and other logistical costs are by far the largest influence on unit costs. Moreover, transport costs vary greatly by location, and can change quickly over short periods of time. The possession of, or control over, vehicles is vital to any operation, and in Somalia is a highly "political" factor, with vehicles often controlled by local power brokers able to extort monopoly profits. Security for personnel, vehicles and supplies is a major additional cost of all operations in these regions.

Local climatic and geographical features. Climate, physical relief, geology, vegetation etc affect the choice of operations and what it costs to deliver them. In Water Supply, Sanitation and Hygiene (WASH) projects, the cost of boreholes varies greatly due to such factors. Where permanent water sources are not feasible, the *berkhad* system relies on storing rainwater in lined pits.

Monitoring arrangements. The security situation in parts of Somalia is such that international staff are not allowed to work there. Some agencies have responded to this by making greater use of local staff[19], and in some cases using remote monitoring techniques. This factor would complicate cost comparisons between projects with different monitoring arrangements.

Social customs. Social customs differing between countries, and regions within them, can have cost implications that distort comparisons. This is particularly true of traditional Islamic societies common in Somalia and parts of Kenya, where, for example, women may need to be provided with separate transport.

Public services. In regions of both countries, the availability and quality of key public services (doctors, nurses, police, local administrators, etc) is unreliable, and agencies may have to compensate with their own personnel, or spend extra money on training or inducements for staff in local public services. Where public services cannot be fully relied on, the quality and impact of medical and nutritional services cannot be guaranteed, agencies face a trade-off between cost and quality of service.

Rapid and unforeseen local developments. In certain areas of Somalia the fluctuating environment means access may change mid way through a programme. Regular suppliers may be lost, necessitating renegotiation with new suppliers, staff may need to be evacuated rapidly, changes in law may occur, e.g. requiring women to travel in separate vehicles to men, resulting in additional transport costs.

Unexplained & residual factors

This final category includes inefficiency and poor project design by the agency, as well as other, residual, factors. Where this category is relatively large, it flags up a potentially important issue to be raised with the applicant agency for further discussion, clarification, and possible rectification. Failing a satisfactory outcome to these discussions, the proposal would not be supportable on VFM grounds.

Presenting factors in cost variance

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[19] Agencies such as ICRC have a longstanding policy of working though local agencies, in their case the Somali Red Crescent.

Some donors and agencies use application formats containing boxes in which distinguishing features of the bid can be registered, thus flagging up possible reasons for cost discrepancies compared to the benchmark (Figure 3.5):

Figure 3.5 Format for accounting for Cost Variance compared to Benchmarks

In an evaluation of African nutrition projects funded by ECHO in the early 2000s, *ex ante* and *ex post* unit costs per beneficiary are shown, and for each project, boxes to indicate features that might explain its relative cost level:

Type of programme

Whether inputs were fully, partially or not at all funded by ECHO

Duration

Number of beneficiaries, both expected and actual

Cost per beneficiary, expected and actual

% of total costs for personnel

% of toal costs for logistics

% of total costs for inputs

Constraining factors (security, logistics, access and transport, supplies, others)

Intervention phase (initial, urgent, continuation, phase out)

Presence of complementary activities (food distribution to users, testing & monitoring, education & awareness, tools & farm support, others)

Devisme S. Le « coût-efficacité » des projets de nutrition financés par ECHO dans les pays ACP. ECHO 2003 (unpublished)

3.3 Monitoring

DFID's recent experience in Pakistan shows the value of close monitoring of the outturns of humanitarian projects on a monthly basis as they arise. Apart from the transparency and accountability that such monitoring provides, the process allows continual adjustments to be made to the approach and design of the projects, and for problems to be identified and dealt with in good time. Experience of such projects testifies to the fact that budgets and activities presented at the proposal stage often bear little resemblance to activities and results achieved, the beneficiaries actually reached and the money spent by the time of the final report.

"Project cycle" monitoring does, however, place an additional onus of reporting on the IP, with a corresponding need for intensive monitoring by the donor's advisers. This begs the question – which is being raised more frequently – of the true cost to donors and IPs of more intensive VFM reporting ("the VFM of VFM"). Time spent on this comes at a cost, which in emergency responses may be measured in lives.

An important practical aspect of this is the periodicity of reporting – the intervals between the "milestones" on the logframe – which will be decided according to several factors: the complexity of the humanitarian situation; the speed with which it is changing; the monitoring resources available to the donor; and how far the IP's budgeting system allows it to attribute costs to outcomes at each of the key milestones. In Kenya and Somalia, the last two factors are likely to be the critical ones, and are likely to indicate 6-monthly reporting periods (and exceptionally 3-monthly in special cases).

3.4 Evaluation and Cost-per-Outcome Metrics.

The literature consulted in this study strongly supports the view that cost-efficiency (cost per output) is a more feasible and credible measure in the current "state of art" of humanitarian appraisal than cost-effectiveness (cost per outcome).

It is difficult to attribute the result of an intervention to that project alone, where the impact arises over time, where there is a multi-sectoral approach and where other contextual factors are important, and often rapidly changing. The *do nothing baseline* against which the impact of a project should be measured is very hard to define in a rapidly evolving situation. Such factors have long been emphasised in the humanitarian literature (e.g. Hallam, 1996, Bradly, 1999).

Further difficulties can be advanced against the concept of the *Disability Adjusted Life Year (DALY)* which is a common default measure of impact, especially in nutrition and health projects. The cases where DALYs have been estimated and are accepted for use in policy decisions have been in environments where cause and effect are relatively easy to establish, and where it is possible to control for external factors (e.g. CDC 2010, Griekspoor *et. al.* 1999).

Accordingly, this report recommends that DFID concentrates on the *economy and efficiency* VFM metrics in the first instance.

3.5 VFM of pooled funds, common services & enabling programmes

3.5.1 Pooled funds

As noted in Chapter 1, a high proportion of DFID's humanitarian funding for Somalia is channelled through the CHF, while in Kenya a smaller proportion goes through the CERF, both of which are administered by the OCHA.

In the context of VFM, two main issues arise in this arrangement. Firstly, does DFID obtain VFM from channelling funds in this way, compared with the alternative of funding IPs directly? Secondly, for funds that continue to go through the pooled funds, how can DFID satisfy itself that VFM is obtained?

VFM of Pooling

Using pooled funding, specifically the CHF and CERF, brings several advantages. Firstly, it taps into the economies of scale that the UN can provide through its procurement and logistical capacity. Secondly, it can lever a greater financial commitment from other donor partners (especially smaller donors not able to have their own field presence), and improve coordination and harmonisation between all such parties. Thirdly, it gives power to the elbow of the UN Humanitarian Coordinator who can direct the aid to priority sectors and needy regions. Finally, pooling can save some of the "transactions costs" of direct dealings with IPs and transfers risk to them[20]. These benefits are considered to be greater where the CHF transfers funds directly to an operational agency, rather than "passed through" another UN agency or international NGO.[21]

The main disadvantages of pooling are its association with the UN's political agenda, and the subordination of bilateral aims to those of UN agencies involved in the allocation process. Cluster chairs who are also officials in UN agencies face "moral dilemmas"[22] in making objective allocation decisions, in which their own agencies are interested parties. Pooling also comes at a financial cost, in the form of various handling charges levied by OCHA and UNDP, set out in Table 3.1.

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[20] "In general the CHF has shifted both transaction costs and risks from donors and onto clusters and recipients, especially NGO recipients" (CR, 2010)
[21] CR, 2010, p. 4
[22] Salomons *et.al.*, 2009

Table 3.1 Charges incurred by a Bilateral Donor in Channelling Funds through the Central Humanitarian Fund in Somalia to UN agencies and NGOs

	To UN agencies	To NGOs
UNDP banking fee	1%	1%
UNDP administrative or managing agency fee for implementing partner	7%	5%
OCHA fee for management of the CHF	3-5%	3-5%
NGO administrative overhead charge	-	7%
Total handling and service charges paid by bilateral donor	**11-13%**	**16-18%**

Source: DFID

In Kenya the CERF is also managed by OCHA, which would normally take a margin of 13%, whether the implementing partners was another UN agency or an NGO. This margin would be split between OCHA and the partner in a proportion that would vary depending on their status –UN agency or NGO.

 A common bone of contention[23] is the size of UNDP's Managing Agent fee, commonly 7%. This reflects the cost recovery level set for trust funds by the UNDP at Executive Board level and does not necessarily reflect the level of services provided in each case. In particular, the CHF monitoring role is viewed as weak.[24] Actual practice on the Managing Agent fee varies, with the CHFs in both Sudan and the Central African Republic charging 7%, but in the DR Congo only 5%.

Although a recent qualitative economic assessment of the CHF in Sudan[25] was positive, DFID's principal concerns with the financial arrangements described above are the lack of clarity over the services provided in return for these fee margins – which makes it difficult to assess their fairness - and the potential inconsistency between different cases.[26]

VFM criteria in OCHA and the clusters

Once the decision is taken to channel funds through common pools the VFM focus switches to the criteria applied by the pools themselves. Nine clusters are active for Somalia. Based on the current humanitarian situation, the priority clusters for the second round of CHF allocations were nutrition, health, agriculture & livelihoods, WASH, protection and shelter). Each cluster review committee applies its own criteria in its selection of bids from potential IPs. For example, the WASH cluster's criteria are: region of priority, costs per beneficiary, how many of the 3 key activity areas are provided, nutrition status of population, emergency status, quality of the proposal, etc.. The nutrition cluster has 6 criteria: project priority, region, cost per beneficiary, degree of coverage, inclusion of preventive activities, and whether capacity building is included.

While some variation should be allowed between the different clusters to reflect their different subject matter, it would be desirable that certain common criteria should be present in all, and that the VFM

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[23] CR 2011 and Salomons 2009
[24] "UNDP….is still not able to offer a comprehensive monitoring service to justify what it charges for this MA function" (CR, 2010, pp. 4-5)
[25] Internal DFID paper CHF-2010 Economic Appraisal (Sudan)
[26] The authors are indebted to Scott Gardiner for the information in this section.

metric (cost per beneficiary) be used consistently, neither of which seems to be the case at present. More generally, OCHA's commitment to VFM has been criticised.[27]

3.5.2   Common services and enabling programmes

The use of common pools for funding humanitarian operations is one example of a more general issue, namely establishing VFM for funding common services and enabling programmes which do not directly result in specific outputs or outcomes to which a VFM metric can be attached. A current example is DFID support to OCHA's Risk Management Unit. Other examples would be support for the Food Security and Nutrition Analysis Unit (FSNAU) for Somalia and for NGO security.

VFM can be tackled at three levels:

- the overall justification of these services and facilities – do the overall benefits warrant the cost?

- does DFID, or any other individual donor, have alternative ways of achieving the desired results at less cost? What is the case for "going it alone"?

- if it makes demonstrable sense to rely on common agencies, are they doing it in a VFM way?

Overall justification.

The first step must be to identify the specific functions being offered (e.g. risk assessment, monitoring, forecasting, information gathering, collective security, etc) and to assess the benefits of each in qualitative and – so far as possible – quantitative terms in order to judge whether the costs are proportionate. In the specific case of risk analysis and management it is relevant to note that the international community is now highly sensitive to the risks (of all kinds) from operating in countries such as Somalia, and that minimising exposure to such risks imposes higher costs, or alternatively reduces operational effectiveness.

Where, in the common situation, the direct benefits of collective services and enabling programmes are difficult to quantify, *reverse analysis* may be useful. This proceeds by estimating the costs of providing a specific service – e.g. a collective Risk Management Unit (RMU) which sets the size of the minimum level of benefits required to justify it, and then forming a judgement about the likelihood of the latter arising. If, for instance, creating a collective RMU would cost $1 million, donors and IPs would be looking at the likelihood of cost savings of this order of magnitude, proportionate to their individual contributions, through savings in buffer stocks, insurance, extra security provisions, less wastage, etc.

Some of the abovementioned benefits of common services could be produced by a donor's own bilateral action, and some may even duplicate these. DFID would need to consider whether it would be feasible[28] or cost-efficient to carry out these services itself, as an alternative to a "club" subscription.

The answer will depend on the functions in question, though it is reasonable to expect strong economies of scale to operate in many cases. The political as well as practical advantages of operating under the UN's "Umbrella of Comfort" should not be dismissed lightly. In an actual recent assessment, DFID Sudan concluded that its involvement in the CHF produced net benefits of efficiency and coordination, increased early response ability, and reduced costs, which more than offset the UN's handling fees on this occasion.

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[27] "OCHA has only just begun to seriously consider the issue of VFM......Apart from the push from the centre there is very little evidence of a VFM culture within OCHA and at country level it is often difficult to find evidence to show OCHA is effective in this area." DFID Multilateral Aid Review – OCHA, 2011
[28] Particularly with donor agencies' concern with limiting "headcount" at the present time, and the heavy overheads of staffing in the countries concerned

There is the final issue of what is a "fair" share" for DFID or any other individual agency in a specific common programme. While the result will ultimately depend on local and international negotiation and other factors, the outcome is likely to bear some relation to the size of DFID's total programme relative to that of others. A more "scientific" principle, which might be feasible for some specific services, would be to place an upper limit on the contribution, based on the maximum value of the common service, equal to the avoided cost of providing it bilaterally.

Common service agencies

If it is decided that common agencies offer better VFM than bilateral action, it still remains to demonstrate that they achieve their aims (outputs, outcomes, use of inputs) at least cost. As a minimum, the unit costs of their major items of expenditure could be matched against comparators. It is relevant to note the judgement of the Multilateral Aid Review (MAR), which awards a low score to OCHA for cost control and the application of VFM approaches. However, the MAR also notes OCHA's intention to put in place "more timely and robust supply and procurement mechanisms, which will focus on optimising physical assets to improve performance and reduce security risks and costs." In 2010, OCHA is reported to have "one of its key objectives….to develop its systems to deliver greater accountability, more coherent tracking and more effective operations."

3.6   Planning and data requirements

DFID officers have the main responsibility for compiling the Business Case for spending proposals, but they draw on data provided by their Implementing Partners (IPs). IPs plan and design their programme in the light of local needs assessment. For each sector of intervention (health, nutrition, WASH, etc) the type of intervention is guided by the relevant SPHERE standards[29], or other agency-specific or locally appropriate standards for humanitarian projects. These can be encapsulated in indicators, at the output or outcome levels.

DFID[30] requires its IPs to present their proposals in a Logical Framework (*logframe*) containing a statement of goal or overall objective, purpose, outcome or impact and output,. Where a project had several outputs, the link between each output and the intended outcome/impact needed to be demonstrated. Indicators appear both as targets (e.g. SPHERE standards) and as measures of performance. Progress towards outputs and targets are measured by project milestones. Work continues in DFID to determine standardised sets of indicators for the different types of humanitarian activities. VFM metrics can be included in these logframes and indicators, as they are decided (e.g. to measure "cost per indicator")

The data situation has improved since the pioneering attempts in the 1990s to assess VFM for humanitarian aid, which led to the following comment: "…The absence of standard accounting practices meant that many agencies did not record expenditures by activity of beneficiary group – a prerequisite for cost-effectiveness calculations" (Bradly, 1999, p. 9). This author goes on to observe: "the usefulness of cost-effectiveness in evaluation hinges on the accuracy and completeness of data provided by implementing agencies. This will require greater cooperation between agencies and a willingness to standardise accounting practices in future complex emergencies" (*ibid*)

Twelve years on, the above assessment is accurate, but the final aspiration is still to be realised. Most, though not all, IPs consulted for the current report appear to have internal budgetary and financial management systems that would permit the attribution of costs to specific outputs or cost headings, if required, though few yet do this.. Several new costing tools are now available for

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[29] The SPHERE Handbook (regularly updated, 2011 edition now available) *Humanitarian Charter & Minimum Standards in Humanitarian Response* includes detailed standards recommended for humanitarian practices for all the sub-sectors considered in this report.
[30] DFID, *Humanitarian funding guidelines for NGOs.* 2007

humanitarian operations, – e.g. FANTA' CMAM Costing Tool[31], the UNICEF/World Bank Marginal Budgeting for Bottlenecks Tool, OXFAM's Helios online model, etc..

Aligning their cost accounting and management information systems to the VFM metrics would be easier for some agencies than others. For certain multilateral agencies output-focussed budgeting would entail wide ranging changes in accounting practices which would need to be agreed at international board level, whereas many NGOs would find these changes more feasible.

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[31] The Community-Based Management of Acute Malnutrition Costing Tool developed by the Food and Nutrition Technical Assistance program of USAID.

4 INTRODUCTION TO THE LIBRARY OF RESULTS

4.1 Scope of the Library

The main sector categories of humanitarian aid in which DFID is currently active are nutrition, WASH, health, shelter and Non-Food Items (NFIs,), food assistance (including the use of cash and vouchers) and refugees (a cross-cutting category including care and maintenance support to any or all of the above).

Within these categories, certain types of intervention are selected on the grounds that they are more amenable to use of the VFM metrics – e.g. because they are standardised products, are easier to measure, have been more extensively documented, etc. These selected interventions are listed in Table 4.1 together with their relevant cost metrics.

Table 4.1. Sub-sectors, Interventions & Metrics

Sub- sector	Typical intervention	Metrics
Nutrition	Severe acute child malnutrition (SAM) Moderate acute child malnutrition (MAM)	Cost per child treated Ditto
WASH	Provision of public water points, boreholes or *berkads;* Rehabilitation of same; Distribution of water to population centres Public latrines	Cost per borehole, latrine or other facility; Cost per cubic meter of water Cost per potential user/beneficiary
Health	Mother and child primary health care Child Health Days (CHDs)	Cost of primary health care per beneficiary per year Cost per CHD
Food assistance	Distribution of food items Use of cash or vouchers for food Food For Work programme	Cost per tonne of food delivered Cost per kcal/person/day Value of cash/vouchers per person/day
Refugees	Care and maintenance of refugees in existing encampments; Protection services	Annual cost per refugee Annual cost of protection per refugee
Shelter and Non-Food Items (NFIs)	Provision of tents & survival kits	Cost per family

Section 4.2 below provides brief contextual information for each of these sub-sectors, illustrated by some VFM benchmark values. A more detailed account of the available evidence and how it can be interpreted can be found in the Library of Results in Annex 1.

4.2 The Sub-Sectors

4.2.1 Nutrition

Humanitarian crises are often characterised by increasing rates of severe and moderate acute malnutrition, particularly among children under-five. This results from a variety of factors,   including loss of access to adequate food and the deterioration in local public health and health services. These conditions need to be tackled at the core of the intervention, but the project may also include micronutrient supplementation, nutrition education, support for appropriate feeding of infants and young children, and surveys and surveillance.

The recent innovation of *ready to use therapeutic food* (RUTF) which can be consumed as a take home ration has allowed the development of the *community based approach to the management of acute malnutrition* (CMAM). This approach is now internationally accepted as an effective alternative to in-patient treatment of severe acute malnutrition. The model consists of:

- Community mobilisation for early diagnosis and case detection,

- Outpatient treatment of uncomplicated cases (OTP),

- Referral to a stabilisation centre (SC) for initial in patient treatment of complicated cases and

- Management of moderate acute malnutrition offering basic health package and *supplementary food ration* (SFP).

As the CMAM approach has been adopted in both Kenya and Somalia, most agencies submit proposals for running CMAM programmes, including all four components. In Kenya, the approach is integrated into Ministry of Health structures. In Somalia, where the health system is weak and there is a scarcity of functioning health facilities, the adoption of the CMAM approach has allowed the considerable scale up of services for acutely malnourished children, increasing coverage to 94% SAM cases in 2010.

DFID 'norms' based on extensive experience of humanitarian operations in the Horn of Africa are quoted as **USD 230 per SAM case**, as the average cost including community mobilisation, stabilisation centre and treatment costs, **USD 153 per case for CMAM** (SAM and MAM), **USD 100 per MAM case**[32]. Evidence from Somalia and Kenya tends to converge with these values, although the **upper limit of the range may be higher** in both countries due to specific contextual factors

4.2.2 Water Supply, Sanitation & Hygiene (WASH)

Water supply, household sanitation, and domestic hygiene are complementary services, often provided as a package (WASH) and with direct impacts on other humanitarian issues such as health, nutrition, livelihoods and education. That said, there are wide choices available over the sources of water and the standard of services for water supply and sanitation, which produce large unit cost variations. All three WASH components, especially sanitation and hygiene, are heavily influenced by cultural norms, and each has major gender implications. In regions of Kenya and Somalia typical of humanitarian aid operations, water tends to be chronically or periodically scarce, and suppliers (well owners, tanker operators, etc), are prone to exploit their monopoly position.

Unlike projects in some of the other sub-sectors considered here, water supply and sanitation projects typically[33] involve the creation of installations intended to last for a number of years – hence for the purposes of comparison the construction cost may need to be annualised. Wells and boreholes requiring pumping are notoriously liable to fall into disuse due to the neglect of maintenance, and a shortage of cash for repairs, spare parts or fuel, hence the importance of setting up a properly funded

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[32] Personal communication with Simon Mansfield, DFID Humanitarian Advisor
[33] Except where water is provided from tankers or sold from existing facilities.

local system for their operation and maintenance. Hygiene programmes entail the cost of trainers and mentors, plus soap, which is often available from local producers.

The cost of buying water from traders is in Somalia is estimated to be c. **$20 per head annually.** This is close to the average figure built up from actual experience of DFID and members of the Somalia WASH Cluster from a number of projects, of c. **$15 per head annually,** which would be higher if treatment were required[34]. In three refugee camps in Tanzania, ECHO estimates the average **annual** cost per head of providing drinking water and sanitation to be, respectively, $3.96 and $2.13[35].

An evaluation of a DFID funded ACF WASH project in Waajid in 2008 calculated the **up-front** cost per direct beneficiary as $26, including water and sanitation facilities and hygiene promotion. A study of EU funded WASH projects in Northeast and Southern Somalia between 1998 and 2003[36] found the range for all projects was $11 to USD 269 per person, with a mean cost per beneficiary of $67 and median cost $52. The above figures would need to be annualized for comparison with other solutions.

UNICEF Kenya has developed unit costs for a large number of items as part of its Marginal Budgeting for Bottlenecks tool, including basic water supply and sanitation installations. The cost per beneficiary for water is in the range $1-4, while for sanitation it is from $1-10, in both cases depending on the option chosen.

In a development context, data produced by WHO for the global costs of attaining the water and sanitation –related Millennium Development Goals show average annualised per capita estimates for Africa of (water supply) $2-4.5 and (sanitation) $7-15.

4.2.3   Health

Access to health care is a critical determinant for survival in any humanitarian crisis. Crisis situations affect the health and well-being of the affected population, whether through injury, psychological trauma, increased rates of infectious diseases or malnutrition. Indirect impacts on public health may result from breakdown in normal services eg inadequate, unsafe water supply, loss of access to food, disruption to health services, or population displacement. In the first phase of a humanitarian crisis the response will focus primarily on basic medical care to meet survival needs. It will then progress to a more comprehensive range of health services prioritised to meet the specific needs of the affected population and to address the main causes of excess mortality and morbidity. Women and children are the main users of health care in most humanitarian situations.

Compared to other sectors, health has more comprehensive data on costs of inputs, outputs and even outcomes. For many public health interventions, as with the treatment of SAM, there are clearly defined and internationally accepted protocols and guidelines, and their effectiveness has been proven at least by reference to non-humanitarian experience.

Key areas of intervention include: prevention and response to outbreaks/epidemics; preventative and curative care; HIV/AIDS prevention and treatment; health infrastructure rehabilitation; mental and psycho-social support; emergency health assistance; reproductive health; and response to Gender Based Violence.

Based on previous DFID experience with NGO-run emergency operations in the Horn of Africa, health care interventions typically cost around **USD 15 per contact per year**, based on one contact per person per year[37]. However, reviewing all the evidence suggests a large range of unit costs per beneficiary depending on the country, context, and specific health intervention provided.

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[34] Estimates from Simon Mansfield

[35] Data from ECHO, based on projects implemented by UNHCR, WFP and UNICEF, 2006.

[36] Project Development: Rural Water and Sanitation Interventions in Northeast and Southern Somalia. Volume II. Preliminary Assessment and Strategic Approaches report Final Version. 24 February 2004

[37] Personal communication Simon Mansfield DFID Humanitarian Advisor

4.2.4 Food assistance

The right to adequate food is recognised in international law. Access to adequate food and maintenance of adequate nutritional status are key determinants of survival in a humanitarian crisis. Depending on the context, these very broad objectives can be addressed through the following key responses either alone or in combination:

- Unconditional food aid – General Food Distribution GFD Targeted GFD

- Conditional food aid – Food For Work, Food For Assets, Food for Training

- Emergency food security and livelihood support

- Unconditional and conditional cash and vouchers

According to US Title II food aid commodity cost list, as provided by the Food for Peace commodity calculator for the fiscal year 2009, a typical daily adult ration of approximately 2,100 kcal costs between USD0.14 per person per day and 0.34 per person per day depending on the commodity used. These costs are for commodities only.

The Somalia IASC Agriculture and Livelihoods cluster have calculated that on average it costs an agency USD 240 per household to deliver asset preservation assistance to that household, i.e. to prevent an at-risk household sliding from one Integrated Phase Classification IPC phase to the next. This figure is based on a review of all CAP proposals within this sector from recent years from which an average amount appealed for per household was calculated. For the recent second round of CHF allocations, new cost criteria have been established. It was decided that USD 150 to 240 per household is sufficient to contribute to minimum purchasing power to prevent deterioration in nutrition status.

4.2.5 Refugees

Providing for refugees, either from neighbouring countries or as internally-displaced persons (IDPs) is an issue that cuts across the different sector categories adopted in this chapter. Settlements need health, nutrition, WASH and other services, often combined. Refugee settlements and projects have generated humanitarian aid cost data relevant for their component sectors. Because of the large numbers of people provided for, and the density of settlement typical of these situations, economies of scale and agglomeration should occur, and the relevant unit cost data would be expected to be lower than in other humanitarian situations.

Several studies by ECHO of the cost of its care and maintenance refugee operations in Western Tanzania at various times between 2001 and 2006 show annual costs per refugee of $127-148 (2001), $140 (2003) and $225 (2006), the levels being very sensitive to economies of scale from the size of camp populations.

UNHCR's actual annual costs per refugee since 2003 have varied from US$73 to 151, with the higher figures largely accounted for by the extra costs of dealing with new arrivals.

4.2.6 Shelter and Non Food Items

In humanitarian crises, access to adequate housing and basic possessions may be lost due to destruction following natural disasters or if the affected population are forced to flee due to civil unrest or insecurity. Key areas of intervention include emergency temporary shelter, post emergency rehabilitation, provision of non food items, and unconditional or conditional cash/vouchers.

In the Consolidated Appeals Process for the Shelter and Non Food Items Cluster in Somalia in 2011, the 6 proposals fell in the range of cost per beneficiary is USD 12 to 67, of which 5 out of the 6 were in the range USD 12 to 30. These were to provide a range of activities including emergency non- food and shelter items. The proposals vary in their content, hence the diversity of unit costs.

5 CONCLUSIONS AND RECOMMENDATIONS

Value for Money metrics

The three VFM metrics reviewed in this report are the unit cost of inputs, the cost per output, and the cost per outcome, which correspond to the economy, efficiency and effectiveness criteria.

The first two of these – the economy and efficiency measures - are the most robust and widely available, and it would be sensible for DFID and its partners to concentrate their resources on developing these, in the first instance. The effectiveness criteria, entailing study of the wider outcomes and impacts of a project, is more problematic in the humanitarian aid context.

The report considers VFM benchmarks available for 6 sub-sectors of humanitarian aid, namely nutrition, health, water supply, sanitation & hygiene (WASH), food assistance, refugees, and shelter & non-food items. There is a substantial body of data for most of these and a good awareness of why unit costs vary between different cases, and in relation to benchmarks or norms. It is recommended that donors and agencies use presentation formats that enable key explanatory factors to be clearly identified. It is also preferable to present evidence on cost metrics for VFM in the form of ranges or scatters, rather than as averages or single number norms.

"hitting the target but missing the point"

VFM is not just about cost metrics. It also consists of assessing the IP's procurement and budgeting procedures, its track record, specific (and possibly unique) value-added, and the timeliness, appropriateness and likely effectiveness of its actions, amongst other factors. As the HERR notes,

"Quality and speed – two key parameters of humanitarian effectiveness – cannot be assessed by output measurement. There is a danger by focusing on one area of the results chain of hitting the target but missing the point". (HERR, p. 53)

VFM metrics are useful tools in planning, approving, monitoring and evaluating humanitarian aid projects for both donors and Implementing Partners. However, they complement, rather than substitute for, professional judgement and are only meaningful where the specific context of the project is properly understood. The comprehensive database being created by ECHO is an ambitious attempt to provide universal metrics that lessen (though will not eliminate) the need for local professional judgement. Although the ECHO data is a valuable resource for humanitarian aid practitioners, it is more likely to complement, rather than substitute for, the "light touch" and more informal approach used by DFID and some other donors.

The e-Library

Rather than developing a comprehensive database such as ECHO's, this report favours the use of an e- Library that can assist the exercise of professional judgement by Humanitarian Aid advisers and practitioners. Annex 1 of the report provides material to start such a Library, and it is recommended that it should be regularly updated and replenished. Much of the value of such a Library is in the *qualitative* evidence it contains, as much as the *quantitative* benchmarks it provides.

This recommendation is in line with that of the HERR, to:

"Build up a library of results, costs of inputs, outputs and outcomes from different countries and regions and different types of disasters in order to be able to carry out effective unit cost analysis and enable fast evidence- based decision-making. Share this where appropriate with other donors"[38]

A precedent for the e-Library is a report produced by ECHO ten years ago[39] which is a compilation of cost data from projects across various humanitarian aid sectors. This initiative was not, however, continued. To obtain value from such an exercise it would need to be a "living" collection,

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[38] HERR, p. 55.
[39] *The unit cost approach of humanitarian activities.* March 2001.

supplemented, updated and used routinely, ideally by a dedicated researcher working closely with humanitarian aid practitioners. In order to sustain the momentum created by the current report and to enable DFID to "hit the ground running" in this respect, in the short term the e-Library would need to be taken over and maintained by DFID humanitarian staff and their advisers. Looking beyond the short term, there are two broad choices.

Firstly, DFID could continue to maintain the e-Library, either as a Kenya and Somalia only initiative, or as a worldwide database, in which case it would become an effort led by London HQ. Either option would require suitable dedicated personnel and support. The alternative for Kenya and Somalia only would be for the Nairobi based offices of OCHA to take over the exercise using data from the sectoral "clusters". This would be a natural extension of OCHA's current functions in analysing and storing data from hundreds of humanitarian projects submitted and under implementation by all its partners. Rudimentary data on VFM is already collected in this database, though at present it is not routinely disseminated.

It is recommended that DFID explores with OCHA, in consultation with ECHO and other major donors, the development of an e-Library which has as one of its functions the collection, analysis and dissemination of VFM data on humanitarian projects. The e-Library should be maintained in a form that would make it accessible to donors and implementing agencies, for their mutual benefit. The data would relate to both the *ex ante* proposals, and the *ex post* results from Project Completion and/or audit reports.

A level playing field for costs

One basic reason why the cost of proposals varies, and makes them difficult to compare, is the use of different costing and budgetary conventions. It is recommended that the parties involved work towards common approaches to the attribution and presentation of costs, following the example of the Somalia CHF in setting standard margins allowable for administrative overheads. Similar agreement is desirable on the treatment of total project costs, value-added, valuation of goods and services in kind, annualising costs, etc. DFID already has agreements with NGOs about allowable margins for overheads, and there is a degree of standardisation on this in the approaches of UN agencies.

The majority of IPs have good budgetary and costing systems that would permit the development of VFM metrics if required. Several innovative costing and budgeting tools are being used, developed or trialled in donors and IPs, including the Helios model, , the UNICEF Marginal Budgeting for Bottlenecks tool, the FANTA CMAM costing tool, etc. Some of these are specific to a sub-sector, other capable of general use. Some may require refining to the humanitarian context. The diversity of costing models is a healthy sign in the present state of the art, provided they can each generate the required VFM metrics, alongside their other agency-specific purposes.

Dealing with uncertainty

Humanitarian aid projects often turn out very differently from what was expected and planned for. This is not surprising, given the volatile environment in which they commonly arise, but it means that the budgets, business plans and cost metrics on which projects are considered and approved may turn out to be wide of the mark. For instance, the number of beneficiaries, which is the denominator of the cost per head ratio, is often widely different from that expected, meaning that the *ex post* VFM ratio would not be that presented *ex ante.*

This uncertainty can be dealt with in several ways.

- Proposals can be presented in the context of several possible scenarios, each with different cost implications.

- Components can be identified that are particularly crucial to the success of the project (*sensitivity analysis*) and the costing effort should focus on these, at key milestones

- Alternatively, agencies' costing systems could be geared up around the interim milestones used in project logframes, so that the costs of different elements (inputs, or interim outputs) of

the project could be monitored during implementation, and due changes made in mid-course. This is the approach being piloted by DFID Pakistan, which is potentially very beneficial, but which does require a high level of donor monitoring, as well as an appropriate type of cost accounting by the IP.

Seeking VFM in Common Humanitarian Funds and enabling facilities

A substantial proportion of DFID's humanitarian aid goes through common pools (e.g. CHFs or CERFs) or into facilities (e.g. OCHA, FSNAU) providing common services or enabling facilities. Demonstrating VFM in these cases requires a different approach, compared with aid provided direct to IPs.

For common funds and services VFM can be tackled at three levels: firstly, considering the overall justification of these services and facilities – whether overall benefits warrant the cost; secondly, judging whether DFID, or any other individual donor, has alternative ways of achieving the desired results at less cost; thirdly, where it makes demonstrable sense to rely on common agencies, ensuring that they operate in a cost-efficient way.

The use of common humanitarian pools such as the CHF is of growing concern in this context. While DFID and other donors obtain important benefits from the CHF, they should press for greater justification of the Managing Agency and other fees charged in relation to the specific services being provided. This applies particularly to monitoring and evaluation.

In pooled funds DFID's quest for VFM is transferred to the sector clusters. While some variation should be expected between the different clusters to reflect their different subject matter, it would be desirable that certain common criteria should be present in all, and that the VFM metric (cost per beneficiary) be used consistently.

Annex 1. Library of Results:

Supporting material on 6 sub-sectors

A note on exchange rates and price levels.

The empirical evidence on unit costs contained in this Annex is drawn from studies and reviews conducted in various recent years and in several currencies (principally the US$, Euro, £ sterling, Kenya Shilling and Somali Shilling and Somaliland Shilling). In order to provide some comparability between the different estimates, allowance should be made for rates of exchange between the currencies concerned and the intervening rates of price inflation in the relevant currency areas. However, both these issues are fraught with both methodological and practical problems: simple rules of thumb are likely to be at least as good as more sophisticated exercises.

Exchange rates

A number of easy-to-use conversion tools are available on the internet. One such is **x-rates.com** (use the feature "historic lookup"). This should be used to express the costs in the year in which they arose into the currency being used in the comparator.

Rates of price inflation

The currency of the comparator should then be adjusted to reflect price inflation in intervening years. This will be a very rough process and does not need to be exact. Where goods and services are supplied from the Eurozone, USA, or UK the price indices of the Euro, US Dollar and Sterling could be used to adjust values. As a rule of thumb, annual inflation rates of 2-3% for the major currencies would be appropriate, and in this context there is little to be gained by attempting greater accuracy.[40]

Kenyan and Somali price levels in local currencies are more volatile, and comparisons of prices in local currencies over time are more difficult. However, in practice international transactions, even when they concern local costs, tend to be expressed in one of the major currencies, so the problem is unlikely to be critical.

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[40] Problems could arise In the choice of price index, where there are several, and there could be reasonable doubts about the validity of using consumer prices in, say, the USA to reflect changes in the international value of the dollar, since it is widely used as a global standard of value even where the goods and services concerned are not sourced from the US. Also, the basket of goods and services used to construct a general price index may not reflect the particular composition of goods and services going into humanitarian aid. A more fundamental problem is that movements over time in exchange rates increasingly reflect capital movements and speculative flows, rather than relative price movements *per se* , hence the problems of intertemporal comparisons, affecting each of the major currencies.

A.1.1.Nutrition

DFID 'norms' based on extensive experience of humanitarian operations in the Horn of Africa are quoted as **USD 230 per SAM case**, as the average cost including community mobilisation, stabilisation centre and treatment costs, **USD 153 per case for CMAM** (SAM and MAM), **USD 100 per MAM case**[41]. Evidence from Somalia and Kenya tends to agree with these values, although the **upper limit of the range may be higher** in both countries due to specific contextual factors.

A.1.1.1 Treatment of Severe Acute Malnutrition

A.1.1.1a Economy – cost of inputs

In Somalia and Kenya, there is one supply chain for RUTF with UNICEF receiving separate funding to maintain this. IP proposals for delivering nutrition interventions will not include this component except in the case of Save the Children and ACF who maintain buffer stocks against breaks in the regular supply chain. This needs to be taken into account when looking at IP budget proposals and calculating cost per beneficiary and comparing to benchmarks.

UNICEF purchases RUTF at USD 60 per carton. UNICEF obtain a more favourable rate due to the volume purchased. Two INGOs who purchase buffer stock of RUTF against breaks in the supply chain pay more. According to SC UK ECHO proposal 2010, RUTF cost USD 98 per carton. In 2011, ACF Kenya purchase RUTF locally at KSH 8,750 (c. USD 103) per carton.

Additional costs over and above procuring the actual product will include cost of freight, inland transport and warehousing. According to UNICEF Kenya analysis using MBB tool, cost of therapeutic food per case of SAM is USD 120. This presumably includes transport and logistic costs. Analysis of data from DFID and ECHO funded UNICEF proposals and final reports for operations in Kenya between 2008 and 2010, reveals a figure of Euro 60 (c. USD 84) per SAM case. This figure includes cost of purchase of RUTF plus associated in country transport and logistic costs.

A similar estimate from Uganda is around USD 92 per case[42]. For Somalia, 1 truck carries around 2000 cartons of 150 sachets RUTF each and charges $15,000 for transport to Somalia. Therefore transport cost per carton is $ 7.50, bringing cost of RUTF per carton to $67.50. On average 1 child requires 1 carton of 150 sachets for full treatment. According to ACF Kenya 2011, rental of one truck for 3 days for the trip to NE Province, and back to Nairobi costs KSH 125,000 to 175,000.

A significant factor influencing cost of purchase is local purchase vs international procurement. In Malawi, purchasing RUTF locally reduced cost per kg by 20% compared to purchase from France[43].

Therapeutic milks used in the treatment of complicated cases typically cost for F75: USD 4.45 per kg and for F100: USD 5.39 per kg.

On average, drugs cost $USD4 for full treatment for a SAM child.

A.1.1.1b Cost Efficiency - cost of outputs

According to IASC Somalia Nutrition Cluster guidelines, treatment of SAM may cost up to US 200 per child, including supplies, transport and implementation costs. However, preliminary analysis by UNICEF Somalia of current partnership agreements suggests the upper limit of the range may be higher than this. The same is true for Kenya.

Data from the World Bank (2010) summary[44] support a range of cost estimates per SAM case in Africa ranging from USD 100 to 330 (see table A.1.1.1). The recently released CMAM Costing tool[45]

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[41] Personal communication with Simon Mansfield, DFID Humanitarian Advisor
[42] MOH Uganda Supply Chain Management, Monitoring and Reporting of Outpatient Therapeutic Care Programs. A trainer's manual
[43] Wilford R, Golden K and Walker DG (2011) Cost-effectiveness of community based management of acute malnutrition in Malawi. Health Policy and Planning doi:10.1093/heapol/czr017

provides an example from Ghana where cost per SAM case is around USD 450, considerably higher than other published data. One primary reason for this could be the very low numbers of beneficiaries. Sensitivity analysis has demonstrated that cost per beneficiary decreases as number of beneficiaries increases (ENN 2004). Another reason for higher costs in this example is the level of detailed information on inputs required which goes beyond that of standard humanitarian project proposals. The development of this CMAM costing tool has potential to facilitate the calculation of cost of CMAM programmes to treat SAM and lead to an enhanced database on cost norms. However it should be noted that the tool has been developed primarily for planners of CMAM within Ministries of Health in development contexts. Experience applying this tool to Somalia and Kenya suggests the way inputs are broken down is not always compatible with typical NGO budget planning methodology in humanitarian contexts.

A.1.1.1c Cost effectiveness – cost of outcomes

Effectiveness of the intervention is well established[46]. In terms of cost per outcome or cost effectiveness, there are two recent published papers concerning the cost effectiveness of CMAM (excluding SFP) in treating SAM. In Lusaka, Zambia, cost effectiveness has been estimated at **USD 1,351 per life saved and USD 41 per DALY averted** compared to the alternative of no treatment (Bachmann 2009 cited in Horton et al 2010) which compares well to other priority child health interventions in Africa such as immunisation. A second paper from Malawi[47] estimated best and worse case scenarios for a dense rural population in a non humanitarian situation. Cost effectiveness in the best case scenario was USD 42 per DALY averted; in the worst case scenario USD 493 per DALY averted.

A.1.1.2. Management of moderate acute malnutrition (MAM)

A.1.1.2a Economy – cost of inputs

Based on data from final reports of WFP ECHO funded programmes in Kenya, the cost of supply and transport of nutritional products (CSB) for management of MAM is around USD 15 per case of MAM (based on an average length of stay in the programme of three months). The UNICEF MBB tool for Kenya estimates USD 16 per case.

For the Hiran region of South Central Somalia, to supply one moderately malnourished child with CSB+ for 3 months has been calculated to cost USD 35 (transport USD15 + product USD 20). To supply RUSF, cost is estimated at USD 40.5 per child (transport USD 4.5 + product USD 36)[48].

Differences in cost between Kenya and Somalia can be explained partly by differences in transport costs and also by use of different products. The Somalia estimate is based on the recently developed product CSB+ whereas Kenya estimates are based on the older, cheaper product CSB.

The unit cost of drugs to treat MAM is estimated at USD1 per case.

A.1.1.2b Cost efficiency – cost per output

According to the World Bank report (Horton et al 2010), cost of providing complementary food for the management of moderate malnutrition in children 6 to 23 months in the context of Kenya and Somalia where GAM rates are >10%, is around USD 80 per child per year. For Somalia, the Nutrition Cluster

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[44] Horton et al 2010 Scaling Up Nutrition: What will it cost? World Bank

[45] USAID/FANTA 2011

[46] Collins S, Dent N, Binns P 2006

[47] Wilford R, Golden K and Walker DG (2011) Cost-effectiveness of community based management of acute malnutrition in Malawi. Health Policy and Planning doi:10.1093/heapol/czr017

[48] Data from analysis provided by UNICEF Somalia Senior Nutrition manager

guidelines give a figure of **USD100 per MAM case, including supplies**. For Kenya, from one project, cost per beneficiary to treat MAM is estimated at USD 60. Comparison data from other African countries is summarised in Table A.1.1.2 and highlights a wide variation in cost of per case of MAM from USD 19 to 114 without supplies and USD 47 to 127 with supplies.

A.1.1.2c Cost effectiveness – cost per outcome

The cost effectiveness of treatment of MAM is not well established. Caulfield et al 1999 (citied in Horton et al 2010) estimate 2 -13% of child undernutrition deaths can be averted by programmes that increase intake of complementary foods among children 6 – 12months. The World Bank estimates that this would give costs of **USD 500 – USD 1000 per DALY averted**.

When looked at in terms of the total numbers affected, the relative benefits of addressing MAM become apparent. SAM has a higher relative risk of mortality but the much large numbers of children affected by MAM mean that that population-attributable risk of mortality is much higher in this group. Treating malnutrition earlier is less risky and less costly and in theory more effective. The problem is that to date, interventions for MAM using fortified blended foods (FBF) have shown limited effectiveness. Reasons for low effectiveness include poor programme coverage, high defaulter rate, and poor efficacy of the product used[49].

The introduction of newer ready -to-use supplementary foods (RUSF) has shown promise in improving effectiveness[50]. The cost of RUSF product is more expensive than FBFs but several aspects of RUSF may reduce overall treatment costs and mean RUSF are more cost efficient overall. These include shorter treatment duration, limited transfer rate into OTP for failure to respond, easier transport, storage and distribution. They have no need for pre mixing, no need of cooking and have a longer shelf life, offering major savings in human, logistical resources. From the beneficiary's perspective there are large cost savings in transport, cooking fuel and the opportunity costs of attending SFPs [51]

A.1.1.3. Community-based Management of Acute Malnutrition (CMAM)

International standards require that treatment of SAM is not implemented in isolation of supplementary feeding for moderate acute malnutrition and the CMAM approach adopted in both Kenya and Somalia embraces this. Therefore, most IP proposals will combine costs for implementing OTP and SFP alongside each other within the CMAM approach with or without costs for SC.

A.1.1.3a Economy – cost of inputs

As described above, cost of delivered RUTF ranges from USD 67.50 to 120 per beneficiary, cost of CSB is USD15-16 and CSB+ USD 20. Medical supplies cost USD1 to 4 per case.

A.1.1.3b Cost efficiency – cost per output

In Kenya, based on analysis of data from DFID and ECHO Kenya proposals and final reports 2008-10, the cost to implement CMAM according to national protocols and guidelines and excluding cost of supplies, ranges from **USD 59 to 122 per beneficiary** (see Table A.1.1.3).

In Somalia, under the CHF allocation procedure, the Nutrition Cluster Review Committee agrees that the **cost of running IMAM programmes is between USD 20 and 100 per beneficiary** excluding supplies of nutritional products - for which UNICEF and WFP receive separate funding. A review of all nutrition cluster proposals under the CAP 2011 reveals a huge range of cost per beneficiary when the crude estimate of the amount requested divided by the number of expected beneficiaries is calculated. The range is from USD 13 to USD 133. For 85% of the proposals, cost per beneficiary is

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[49] Navarro-Colorado C, Mason F and Shoham J (2008)
[50] Nackers et al 2010
[51] Nackers et al 2010

between USD 20 and USD 65. One problem cited in looking at cost efficiency in this way is that for some projects the expected number of beneficiaries differed greatly from expected caseloads according to figures estimated by FSNAU. The total amount requested under Nutrition is USD 36,066,437 for 377,000 people in need which equates to USD 95.6 per beneficiary.

The following breakdown of implementation costs of CMAM approach is based on analysis of 11 UNICEF Somalia PCAs[52].

- Transport costs for OTP/SFP teams on average contributed to 40% of costs again with a huge range of 2 to 84%. A significant factor explaining the big range is the extent of outreach requiring mobile health teams.

- Training costs for IMAM training were on average around 3% of total project cost.

- Staff incentives on average contribute to 50% of total project costs but with a huge range from 4% to 93%.

Data from other African countries supports the range of cost per beneficiary noted in Kenya and Somalia. Analysis by Emergency Nutrition Network (ENN) of 3 programmes implemented during 2003, demonstrated cost of CMAM per beneficiary ranged from USD 60 to USD 148 (see table A.1.1.3).

A 1.1.3c Cost-effectiveness – cost per outcome

Cost effectiveness studies to date have focused on the treatment of SAM within the CMAM approach. These 2 studies are described in section A.1.1.2c.

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[52] Data analysis provided by UNICEF Somalia senior nutrition manager

Table A.1.1.1 Estimated Cost per case of severe acute malnutrition treated

Context	Year	Cost per beneficiary	Source	Comments
Kenya (NE Province)	2009	Euro 82 (USD115)	ACF ECHO final report	Excludes RUTF. [With RUTF 60 + 82 = Euro 142 (USD 198)] Includes capacity building and 2 coverage surveys
Kenya (NE Province)	2011	£89 (USD 142)	ACF DFID proposal	Excludes RUTF. [With RUTF USD 142 + 84 = USD 226]
Somalia	2011	$200	IASC Nutrition Cluster Review Committee	NB Preliminary analysis of UNICEF PCAs suggest upper limit of range is >USD200
Ghana	2010	USD 450	FANTA 2011	Low number of beneficiaries one factor that could explain high costs
Zambia	2009	USD 201	Bachmann (2009)	- delivered in primary health centres - used cost of locally produced ready to use food - Cost split: food- USD72 (36%); technical support from INGO – USD 69 (34%); hospitalisation costs averaged over all children – USD34 (17%)
Malawi (Nsanje)	2007	USD 228	Concern (2007)	Food not locally produced (food cost USD92); includes stabilisation centre and CMAM. If locally produced RUTF cost <USD 200 per beneficiary
Niger	2004	USD 100-115	Gaboulaud (2004) cited in Ashworth (2006)	Upper end of range includes children treated in facility for 2 weeks
South Sudan (Anweil West)	2003	USD 281	Emergency Nutrition Network (2004)	Likely does not include hospitalisation component. Costs high as new operation and supplies flown from Kenya
Malawi (Dowa)	2002- 03	USD 283	Emergency Nutrition Network (2004)	Likely does not include hospitalisation component. Costs high as NGO new to country

| Ethiopia | 2003 | USD 331 | Emergency Nutrition Network (2004) | Likely does not include hospitalisation component. Well established programme |
| Niger | | USD 110 | Gadot MSF cited in WB 2010 | Includes hospitalisation for 15% of children, 12% support, coordination & investment |

Table A.1.1.2 Estimated cost per beneficiary of management of moderate acute malnutrition

Context	Year	Cost per beneficiary	Source	Comments
South Central Somalia	2011	USD 22	CAP Proposal	Excludes food supplies. Based on USD 35 per case, total cost per MAM is USD 57
Somalia	2011	USD 100	IASC Nutrition Cluster Review Committee	Includes implementation and supplies
Kenya NE Province	2009	USD 45	Islamic Relief – ECHO Final Report	Excludes cost of food. Based on USD 15 per case for SFP, total cost per MAM case is USD 60
South Sudan (Anweil West	2003	USD 106	Emergency Nutrition Network (2004)	Cost of supplies included
Malawi (Dowa)	2003	USD 127	Emergency Nutrition Network (2004)	Cost of supplies included
Ethiopia	2003	USD 47	Emergency Nutrition Network (2004)	Cost of supplies included
Kenya	2001	Euro 123/USD 114	ECHO 2003	Security and logistics, access and transport noted as significant factors putting up cost
ECHO funded programmes in	2000-01	Euro 59 (Range Euro 20 to 123)	ECHO 2003	Cost of Nutritional products not included as supplied by UNICEF or WFP

Africa		USD 55 (range USD 19 to USD 114)		

Table A.1.1.3 Cost per beneficiary of CMAM (OTP + SFP)

Context	Year	Cost per beneficiary	Source	Comments
Somalia	2011	USD 13 to USD 133	Review of all CAP Nutrition Cluster proposals from FTS	Excludes nutrition product supplies. Covers the three zones of Somalia ie wide range of contexts
Somalia	2011	USD 20 to 100	Nutrition Cluster review Committee	Cost of implementation only excluding supplies
Somalia IDPs in Hiran region	2010 - 11	USD 97	SC – UK ECHO proposal	Excludes supplies
Somalia – Mogadishu	2010-11	USD 146	ACF DFID proposal	Complete package including supplies of RUTF although not clear if supplies sufficient for all cases
Somalia Hiran	2009-10	USD 102	SC UK – ECHO final report	Includes buffer stock of 5MT RUTF
Kenya NE Province	2010 -11	USD 88 to 98* without supplies	SCUK Joint DFID ECHO proposal	Excludes supplies. *Upper limit based on 70% coverage of programme.
Kenya NE Province	2010	USD52 without supplies USD 79 with supplies	Islamic relief ECHO proposal	Cost with supplies based on USD 120 per SAM and USD 15 per MAM. Cost seems low but at proposal stage and likely beneficiaries are exaggerated. If you take coverage at 70%, cost per beneficiary without supplies is USD 73 & with supplies is USD 96
Kenya Refugees	2010	USD 39 without supplies	IRC ECHO proposal	

		USD 68 with		
Kenya NE Province, Moyale	2009	USD 122 without supplies	Concern Worldwide ECHO final report	Relative small number of beneficiaries (2410) could be pushing costs up
Kenya NE Province	2009	USD 99 without supplies USD 127- 131 with supplies	Islamic Relief – ECHO final report	Calculation with supplies is based on lower estimate RUTF USD 85 and upper estimate USD 120 per SAM case and USD 15 per MAM case.
Kenya NE Province	2009	USD 59 without supplies USD 85 with supplies	SCUK ECHO Final Report	IMAM approach, includes screening and referral and capacity building CHW Cost of supplies based on USD 85 per SAM case and USD 15 per MAM case
Ethiopia	2003	USD 60	Emergency Nutrition Network (2004)	Includes cost of supplies
South Sudan (Anweil West	2003	USD 114	Emergency Nutrition Network (2004)	Includes cost of supplies
Malawi (Dowa)	2003	USD 148	Emergency Nutrition Network (2004)	Includes cost of supplies

Summary for nutrition: factors explaining cost differences

- Number of actual beneficiaries - sensitivity analysis has demonstrated that cost of CMAM per beneficiary decreases as number of beneficiaries increases (ENN 2004).

- According to analysis by ENN 2004, the use of existing physical and logistic health infrastructure and staff reduces costs, especially for out reach activities, which are expensive to set up and run independently. However, in Kenya the integration of CMAM into MOH structures can lead to increased costs. Projects may need to include the cost of capacity building of MOH staff and per diems (even for routine activities). The IP will still incur costs for outreach in the form of logistics, transport and per diems for MOH staff travelling away from their post even for routine activities, which in remote locations in NE Province may be sizeable.

- Rate of recovery- slower recovery increases costs, requiring additional RUTF, surveillance and follow up.

- Phase of the programme. Initial phase of a new programme will involve additional costs compared to the continuation or scale up of an established programme

- Inclusion/exclusion of inpatient care for complicated cases of severe acute malnutrition Complicated cases may be referred to inpatient facility run by different agency under different budget.

- Locally produced RUTF vs internationally procured RUTF. Locally procured RUTF may be 20% cheaper than that imported from Europe.

- Use of different nutritional products eg CSB, CSB+ or RUSF for Moderate Acute Malnutrition

- Whether the cost of nutrition supplies is included or not.

- Local context. In Kenya, the majority of UNICEF-supported CMAM programmes are in NE province where the cost per beneficiary increases due to security, access, and logistics. The remote population causes high outreach costs; high staff turnover increases the need for repeated training; poor staff motivation can lead to a high rate of absenteeism. (It could be more appropriate to develop 3 benchmarks; 1) for expensive operating environment, 2) for mid range environment and 3) cheaper operating environment. These benchmarks would correspond to i) remote rural setting (where costs of transport security and logistics are high), ii) rural setting (where costs of logistics are mid-range iii) urban setting (easy access, high coverage).

- Individual agency approaches. For example, UNICEF focuses on equitable distribution. In Somalia and NE Kenya, 'reaching the difficult to reach' requires greater investment in mobile outreach teams which inevitably increases transport and staff costs.

A.1.2. Water supply, sanitation and hygiene (WASH)

Several factors complicate cost comparisons of WASH in an East African context:

- The *permanence* of the arrangements – unit costs appropriate for "quick fixes" in a humanitarian context are unlikely to compare with permanent solutions in a development context. Some solutions are somewhere in between these extremes, and certain agencies are moving more towards the provision of more durable solutions on VFM grounds (e.g. away from tankering, towards permanent water sources).

- *Composition* of the project. The most basic distinction is between water supply and household sanitation – the latter is normally more costly, but offers scope for self-help efforts. Hygiene - the third element in WASH – is normally very cheap in monetary terms, having few direct inputs beyond soap, but incurs other costs (education, training, outreach etc) in changing personal and social behaviour

- The *facilities and standard of service* offered. There is a big range in the cost per beneficiary of both water and sanitation solutions depending on the service option chosen

- Finally, in East Africa there is great variation in the cost of WASH activities due to many *local factors* (topographical, geological, hydrological, social, economic, political, etc). Another possible benchmark is that of Water Aid (2003) which quotes a typical target for development-based rural water programmes as around $50 per head annually.

Most of the evidence reviewed below relates to the *efficiency* criterion (*cost per output).* Standardised unit cost data for inputs (*economy)* can be viewed in MS Excel format from UNICEF's Marginal Budgeting for Bottlenecks Tool.

Evidence from Somalia

The cost of buying water from traders is in Somalia is estimated to be c**. $20 per head annually.** This is close to the average figure built up from actual experience of DFID and the Somalia WASH Cluster costs in a number of projects, c **$15 per head annually,** which would be higher if treatment were required[53].

An evaluation of DFID funded ACF WASH project in Waajid 2008 calculated the cost per direct beneficiary as $26, including water and sanitation facilities and hygiene promotion. A study of EU funded WASH projects in Northeast and Southern Somalia between 1998 and 2003[54] found the range for all projects was $11 to USD 269 per person. The mean cost per beneficiary was $67 and median cost $52.

In allocating funds from the CHF, the WASH Cluster Review Committee uses a set of criteria including region of priority, number of components (water, sanitation and/or hygiene), sustainability, nutritional status, etc. in arriving at an overall priority[55]. The criteria are applied in conjunction with a commonly agreed set of service standards and technologies, each with an indicative cost (Table A.1.2.1). Cost per beneficiary is not a primary criterion, and only comes into consideration for the choice between

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[53] Estimates from Simon Mansfield
[54] Project Development: Rural Water and Sanitation Interventions in Northeast and Southern Somalia. Volume II. Preliminary Assessment and Strategic Approaches report Final Version. 24 February 2004
[55] WASH Cluster Review Committee, *Project Prioritisation Scoring Sheet,* and *Minimum WASH Guidelines for Somalia.*(seen in draft).

projects of equal merit on the primary criteria. This represents a change in policy by the Cluster Review Committee, in the light of its greater emphasis on the sustainability of WASH solutions, which has cost implications.

Table A.1.2.1 WASH Cluster guidelines for Somalia

Item	Cost per item US$	Specification
Shallow well rehabilitation	2,000 for 10m depth	concrete or masonry lining; head wall & fencing, etc.
Shallow well construction	4,000 for 10m depth	As above
Borehole rehabilitation	35,000 for 100m	Sealed to 3.5m, meters & valves, concrete apron, fencing, submersible pump (for yield of >5m3/hr) etc.
Borehole construction	80,000 for 100m	As above, plus detailed drilling report, etc.
Berkad rehabilitation	4,000 for 200m3	Lining with stone masonry, ferro-cement or brick, grouting, fencing, spillway, concrete base, etc
Berkad construction	7,000 for 200m3	As above, with storage for 10 l/h/d for 90 days
Water pan rehabilitation	8,000 for 500m	Silt trap, fencing, infiltration wells, lining with plastic sheet, spillway
Water pan construction	15,000 for 500m	Storage volume for 10 l/h/d for 90 days
Water trucking	$0.27 for 5 l/h/d	Minimum volume 5 l/h/d, chlorinated
Hygiene	PHAST training per person 200; PHAST per beneficiary 10	Inc 200g soap h/mth
Public latrine rehabilitation	300 per latrine	A latrine shared by any no. of people; emptying of old pit; lockable door, washable slab; handwashing facilities; separate facilities for men and women where necessary
Emergency/urban latrine construction	200 per latrine	As above, plus durable materials; regular cleaner
Rural latrine construction	70 per latrine	For one family only; agencies to provide slab only; rest to be done by beneficiaries
O&M for local Water & Environmental Sanitation	300 for training WESCs; 120 for 1 sanitation kit	Training of WESC members in respective roles; development of by-laws & rules; wheelbarrows,

				shovels, rakes, etc/
Committees				shovels, rakes, etc/

WASH Cluster Review Committee, "Minimum WASH Guidelines for Somalia"(seen in draft).

Table A.1.2.2 summarises WASH cost data available for Somalia based on the evaluation of ACF 2008, Oxfam proposal to DFID (2010) and WASH cluster draft guidance on unit costs.

Table A.1.2.2 Summary table of WASH cost data available for Somalia

Type of facility, work done	ACF average unit costs (Waajid 2008)	Oxfam average unit costs (2010)[56]	EU (2004) or ADRA[57] (2005) average unit costs	WASH cluster guidelines -draft (2009)
Shallow well rehabilitation	$ 1,700 - $1,900	$2,667	ADRA $1,000 to $2200 depending on depth EU median cost $3300 Mean cost $5400	$2,000 for 10m depth
Shallow well construction	n/a	$6720	n/a	$4000 for 10m depth
Borehole construction				$80,000 for 100m
Borehole rehabilitation	n/a	$12,000	n/a	$35,000 for 100m
Berkad construction	$6957 for 50m^3 Or $140/m^3	n/a	EU Average cost $12,000 For 50m^3 cost is $200/m^3 Most cost efficient are 200m^3	$7,000 for 200m^3 ($35/m^3)
Berkad rehabilitation	n/a	n/a	n/a	$4,000 for 200m^3 ($20/m^3)
Water trucking	$25/m^3	n/a	$20/m^3	$0.27 for 5 l/h/d
Latrines	$150 (cement slab $50)	$80 - $427 depending on type	EU cement slab mean cost $97	$70 - $300 depending on type
Filters	Bio sand filter $20	Ceramic filter $54	n/a	n/a

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[56] Source: Oxfam proposal to DFID 2010
[57] Adventist Development and Relief Agency

Evidence from Kenya

UNICEF Kenya has developed unit costs for a large number of items as part of its Marginal Budgeting for Bottlenecks tool, including basic watsan installations. These are summarised in Table A.1.2.3. The cost per beneficiary for water is in the range $1-4, while for sanitation it is from $1-10, in both cases depending on the option chosen.

Table A.1.2.3 Standard unit costs of watsan items, Kenya as used by UNICEF budgeting model

Item	Cost per person covered (US$)
Basic latrine (CATS)	0.80
Simple pit latrine	4.88
Ventilated Improved Pit (VIP) Latrine	6.21
Septic tank	9.75
Protected dug well	1.55
Borehole	1.70
Standpipe	2.40
Rainwater collection	3.62

UNICEF Kenya: Marginal Budgeting for Bottlenecks Tool.

Evidence on WASH costs from the MDGs & other "development" sources

Data produced by WHO for global costs of attaining the water and sanitation –related Millennium Development Goals show average annualised per capita estimates for Africa of (water supply) $2-4.5 and (sanitation) $7-15.

In three refugee camps in Tanzania, ECHO estimates the average annual cost per head of providing drinking water and sanitation to be, respectively, $3.96 and $2.13[58].

A study of rural water supply in Eastern Cape Province, South Africa estimated annual costs of water supply at $7-15 per head.

The figures in Table A.1.2.3 are within the same range as WHO-sponsored estimates of average costs for providing access to "improved" water supply and sanitation in the context of the Millennium Development Goal targets. These costs are broken down by major regions of the world, and for different types of improvements. Table A.1.2.4 extracts items produced for the Africa region relevant for this paper. The assumption is that these facilities have a design life of 20 years, hence annual investment costs are assumed to be one-twentieth of those in the Table. The figures exclude "programme costs" arising at district, provincial or central administrative levels.

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[58] Data from ECHO, based on projects implemented by UNHCR, WFP and UNICEF, 2006.

Table A.1.2.4 Estimated per capita costs for Africa of water supply and sanitation in the MDG context (US$)

	Initial investment cost	Annual recurrent cost	Total annual costs[59]
Water			
Standpost	50	0.5	3.0
Borehole	37	0.2	2.05
Dug well	34	0.2	2.05
Rainwater	79	0.5	4.45
Sanitation			
Septic tank	185	6.2	15.45
Pour-flush	147	6.1	13.45
VIP latrine	92	3.8	8.4
Simple pit latrine	63	3.6	6.75

Hutton & Bartram, WHO, 2008

It should be stressed that the cost estimates in this Table are Africa regional averages, relating to interventions in line with standards laid down for the MDGs, in non-emergency situations.

In three refugee camps in Tanzania, ECHO estimates the average annual cost per head of providing drinking water and sanitation to be, respectively, $3.96 and $2.13[60]. These figures, which appear low, reflect the economies of scale from supplying large numbers of concentrated, sedentary, people in a stable situation.

Further data is emerging from the WashCost project at the IRC Netherlands which researches the life-cycle costs of water, sanitation and hygiene services in rural and peri-urban areas in Burkina Faso, Ghana, Mozambique, and Andhra Pradesh (India). Early reports of the project[61] mention a number of problems with the development of benchmarks for use in international comparisons:

- Costs are typically estimated from Bills of Quantities, rather than actual, realised, spending;

- Whereas in networked systems cost per cubic meter is a reasonable indicator of efficiency, in non-networked situations (more typical of Humanitarian Aid operations) the absence of metering forces reliance on per household or per beneficiary metrics. These estimates are shaky where average household numbers are not well known, and where the target population is fluid.

- Lifespans assumed for the installations tend to be too optimistic, especially where they are not properly maintained or where they are used more intensively than expected, e.g. due to unforeseen growth in the number of beneficiaries.

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[59] 1/20 of initial investment cost plus recurrent cost
[60] Data from ECHO, based on projects implemented by UNHCR, WFP and UNICEF, 2006.
[61] WashCost, 2010, especially Chapter 5, "Comparing international costs: a step by step approach".

- Comparisons of unit costs in different countries at different points of time run into problems due to movements in the exchange rate between local currencies and common international currencies (usually $$, euros or ££).

A study[62] of the O&M costs of rural water supply schemes in Eastern Cape Province, South Africa concludes that these costs vary widely, due mainly to the choice of technology, the scale of different schemes, and their geographical location relative to centres of technical support. A significant finding was that technical support and related travel accounted for 50-65% of O&M costs for these projects. That said, the actual annual costs per household of water supplies in the two districts concerned were US$77 and $33 (for a household of 5 these would correspond to per capita costs of roughly $15 and $7). These costs exclude disinfection, which is generally not required (Table A.1.2.5).

Table A.1.2.5 : unit cost of water supply to permanent settlements in South Africa

South Africa: Eastern Cape Province: water only, excluding disinfection (unnecessary)	Range US$ 7-15 p.a. (assuming households of 5 persons – proportionately less for larger)

Gibson, J. "Operation and maintenance costs of rural water supply schemes in South Africa". Paper for IRC Symposium 2010, "Pumps, pipes and promises"

Summary for WASH: Factors explaining cost differences

The general conclusion from the evidence above is the wide range of unit costs due to the many variables involved, some of them due to different design and service standards, others due to features of the local environment.

- may not include all components: water, sanitation & hygiene
- sensitive to scale, dependent on settlement size, population density, whether networked or not, whether population sedentary or nomadic/shifting;
- is water purchased from vendors, or from permanent sources?
- does water need treatment (disinfection)?
- great variety of local conditions for borehole drilling;
- level of pumping costs for extraction & distribution (or just storage?)
- Service standards (e.g. design standards per head) for both water (any allowance for livestock?) and sanitation (e..g individual or communal facilities);
- Lifespan assumed for installations & equipment
- Proximity to sources of technical support

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[62] Gibson, 2010

A.1.3. Health

Based on previous DFID experience with NGO-run emergency operations in the Horn of Africa, health care interventions typically cost around **USD 15 per contact per year**, based on one contact per person per year[63]. However, reviewing all the evidence suggests a large range of unit costs per beneficiary depending on the country, context, and specific health intervention package provided.

A.1.3.1 Unit Cost of Inputs

i) Kenya

In terms of benchmarks of economy, UNICEF Kenya MBB tool provides useful estimates of the unit costs of wide variety of inputs into health care programmes in Kenya from annual salaries to cost per training day to individual vaccines to the construction of health posts.

ii) Somalia

A recent Economic Evaluation of Child Health Days in Somalia by CDC provides reference information on the *unit costs* of the provision of the following interventions (2 rounds) to the under-5s: aquatabs, oral rehydration salts (ORS), deworming tablets, measurement of Mid - Upper Arm Circumference (MUAC), vaccinations (measles, oral polio, Diptheria-Typhoid-Pertussis, Tetanus Toxoid) and Vitamin A supplementation. Costs are summarised in Table A.1.3.1 (figures include syringes, safety boxes, scissors, tapes, etc).

Table A.1.3.1 CHDs in Somalia: unit cost of interventions (US$)

Oral polio vaccine	0.16
Measles vaccine	0.30
DPT vaccine	0.25
Tetanus toxoid vaccine	0.15
Deworming tables	0.02
Vitamin A supplementation	0.03
Oral rehydration salts	0.07
Aquatabs	0.03
Measurement of mid - upper arm circumference	0.06

CDC: *Economic evaluation of Child Health Days in Somalia, Nov 2010*

A.1.3.2 Cost efficiency – unit cost of outputs/cost per beneficiary

i) Kenya

For Kenya, a review of 2011 Kenya CAP proposals within the health cluster shows a range of interventions appealed for with a range of cost per beneficiary of USD 0.8 to 8.

According to UNICEF- ECHO final report for 2008, providing basic health kits, LLITN, measles and polio vaccine to IDP women and children Kenya in 2008, cost around 4.4 Euro (USD 6) per beneficiary. For refugees in Kenya, the provision of primary health care costs from USD 1.5 to 5 per

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[63] Personal communication Simon Mansfield DFID Humanitarian Advisor

beneficiary per year depending on the agency, while a package including primary and secondary care cost USD 19 per refugee per year (see Table A.1.3.3)

By way of a comparison, in- patient treatment costs of malaria and pneumonia per child in a public regional or district hospital in Kenya has been calculated as USD 47 to 81 for malaria and USD 54 to 99 for pneumonia[64].

ii) Somalia

From the CDC economic evaluation, of CHDs in Somalia u*nit costs of outputs* were assessed as follows:

- Average cost per beneficiary targeted by each intervention: $0.69 in Round 1, $0.67 in Round 2;

- Average cost per beneficiary accessible by each intervention: $0.90 in Round 1, $0.76 in Round 2.

A review of 2011 CAP proposals within the ISAC Somalia health cluster highlights the huge range of interventions appealed for and therefore widely ranging cost per beneficiary (USD 0.74 to USD 146). One specific example from DFID partners is ACF Somalia proposal 2010 to provide preventive and curative health care to women and children in Mogadishu which it is estimated to cost around £14.50 (USD 23) per person covered per year.

The IASC Health cluster for Somalia is currently revising cost criterion against which to review and assess CAP proposals for CHF standard allocation. For the next round of standard allocations, partners will be asked to follow guidelines provided by the Costing the Essential Package of Health Services (EPHS) for Somalia developed in 2008 to cost personnel, supplies and interventions. Using these guidelines, partners need to set only three factors for costing: (a) health facility or intervention they want to support (b) population of the catchment area (c) duration of the proposed interventions. The rest of the items will be calculated automatically by the costing tool.

In conjunction with this, the health cluster will also publish the standard unit costs of commodities eg an inter agency emergency health kit, a reproductive health kit, a diarrhoeal treatment kit, a PEP kit etc. per population size alongside information on the number of cases and prevalence of health problems in that particular geographical location based on current epidemiological trends.

For background information, the World Bank review of Health Sector Aid Financing to Somalia 2000 – 2006 reports aid financing to the health sector grew from USD 3 per capita in 2000 to USD 7-10 in 2006. Over this time there was a shift towards stronger financing of vertical programmes. More detailed breakdown reveals that supplies and agencies' operating costs in 2006 represented more than half the overall health sector expenditure. Supplies constituted 28% and operating costs of agencies including staff costs, travel into Somalia and transport accounted for 23% of the total expenditure. This highlights the high costs of operating in Somalia. Further analysis suggests that if non- OEDC donors, remittances and out of pocket expenditures not captured in the review, are included, total per capita spending might be in the range of USD 12 to 20. These fairly high funding levels contrast with the poor levels of performance and highlight the scope for efficiency gains in the health sector[65].

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[64] Ayieko et al. The economic burden of inpatient paediatric care in Kenya: household and provider costs for treatment of pneumonia, malaria and meningitis. *Cost Effectiveness and Resource Allocation 2009, 7: 3*
[65] Pavignani E, Correggia R, Pearson N Steps Towards Harmonising External Support. Health Care provision for the Somali People. UNICEF report 7

A 1.3.3 Cost Effectiveness - Cost of outcomes

i) Kenya

No data is currently available for cost per outcome of health interventions in Kenya.

ii) Somalia

The main evidence on cost effectiveness of health interventions in Somalia is provided by the economic evaluation of CHDs by CDC 2010.

Unit cost of outcomes were as follows:

- Average cost per life-year saved (DALY) by the two rounds of CHDs: $36 (range $30-47). For comparison, Somalia's 2008 GNP per head is reckoned to be $140.

To express the benefits of the programme as a return on investment:

- $1 million invested in the two CHD rounds returns an estimated 442 childrens' lives in Round 1, and 705 lives in Round 2 (respectively, 21,200 and 33,900 life-years saved)

The cost of these outcomes means that CHDs compare very favourably with certain other health interventions in sub-Saharan Africa, specifically HIV and AIDS programmes, the treatment of childhood illnesses, maternal and neonatal care, and oral rehydration therapy & rotavirus vaccines for diarrhoea. The data are also used to demonstrate the superior economic returns from the use of pentavalent rather than DPT vaccines for both rounds of the CHDs.

A.1.3.4 Comparative evidence – humanitarian context

The wide variation in *costs of outputs* in health sector is backed up by evidence provided by an evaluation of DG ECHO-financed activities in the Health Sector during 2006[66]. This highlights huge differences in cost per beneficiary for health interventions (see table A. 1.3.2). Furthermore, examples of substantial differences in cost per beneficiary for similar programmes with similar impacts in the same country were noted.

Table A.1.3.2. Range in cost per beneficiary per type of intervention DG ECHO financed activities in the health sector during 2006

Intervention	Lowest (Euro)	Highest (Euro)
Primary Health Care	1	29
Hospital care	4	356
Outbreak response	0.16	138
Rehabilitation physically handicapped	4	200
Psycho-social care/SGBV	30	359

The cost of delivering health care to refugees (Table A 1.3.3) can provide a useful reference as these programmes are delivered in a relatively stable and controlled environment with good population access and utilisation and therefore good coverage. It is important to note however that the quality of

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[66]ECHO: An evaluation of DG ECHO financed activities in the health sector, Final Report, November 2007

services provided to refugees, generally run through INGOS, may be better than that provided by the host country health system. This may have implications on cost estimates.

Table A.1.3.3 Health cost norms for refugee operations (good access, quality & coverage)

Context	Cost per refugee	Source	Comments
Tanzania (2003)	USD16.29	ECHO 2003	Based on 4 OPD a year per refugee. Indicators good. Includes surgery & referral, malaria 1st line treatment SP, Nutrition – TFC and SFP excluding food
Uganda (2003-2004)	USD 13.12	Orach, Dubourg & De Brouwere 2007[67]	Health care for host population USD 4.85 per capita. Higher costs refugees explained by higher quality of care provided. Excludes nutrition
Tanzania (2006)	Average USD 16.08 (Range USD 14 – USD 19)	ECHO 2006	Also includes nutrition as above. Indicators all good
Kenya (2009)	USD 19	MSF – ECHO refugee health care final report 2009	Includes primary and secondary care. Primary health care alone cost USD 5 per beneficiary
Kenya (2010)	USD 1.5	IRC-ECHO proposal	Primary health care only. Based on <1.5 consultations per refugee per year
Kenya (2010)	USD 4	IRC-ECHO proposal	Safe Motherhood programme including 24/7 hospital maternity care
Kenya (2010)	USD 18	UNHCR Appeal Budget 2010	Primary Health care excluding nutrition and HIV/AIDS
Kenya (2011)	USD 25	UNHCR Appeal Budget 2011	Primary health care excludes nutrition and HIV/AIDS

A.1.3.5 Comparative evidence – non- humanitarian

With the provision of preventive and curative health care a key focus of health interventions in humanitarian situations, relevant cost benchmarks can be sought from primary health care interventions at a global/Africa level, where several key references exist, albeit from a development perspective.

In terms of *cost efficiency or cost per output*, WHO's Commission on MacroEconomics and Health estimated the cost of attaining the MDG on health to reduce infant mortality by two-thirds by 2015[68].

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[67] Orach et al. Costs and Coverage of reproductive health interventions in three rural refugee-affected districts, Uganda. Trop Med Int Health 2007;12 (3): 459-69

The approach taken was to calculate the unit costs of the specific interventions required to reduce avoidable deaths, estimated to be between **USD 30 to 40 per person per year**. The Commission considered a broader set of health problems than those in the MDG and the estimate is the minimum amount needed to deliver basic treatment and care for the major communicable diseases (HIV and AIDS, TB and malaria), and early childhood and maternal illnesses. This estimate can be considered as the upper range of cost per beneficiary for a humanitarian intervention as it is possibly based on a more comprehensive package of services than that provided within a humanitarian response.

Another source of cost estimates for delivery of basic primary health care is the Disease Control Prevention Project (DCP2). The DCP2 finds that modest expenditures can have a significant effect on neonatal survival. For example, in Sub-Saharan Africa, providing basic maternal and child health services that would reduce neonatal mortality by 6 percent to as much as 41 percent, depending on the pre- existing coverage of primary services and the baseline neonatal mortality rate, would cost between US$2 and US$10 per capita.

Looking at *cost effectiveness or cost per outcome*, DCP2 provides further evidence in terms of DALYS averted, of health interventions in the sub Saharan Africa context (Table A.1.3.4)

Table A.1.3.4 Best buys for health in Sub-Saharan Africa[69]

Health Intervention	Cost (in USD) per DALY averted
Childhood immunisation	$1-5
Malaria prevention	$2-24
Surgical services and emergency care	$7-215
Management of childhood illnesses	$9-218
Cardiovascular diseases (prevention & management)	$9-273
HIV/AIDS prevention	$6-377
Maternal and neonatal care	$82-409

Summary for health: factors explaining cost differences

- Quality of care provided – Published work from Uganda[70] found the cost of primary health care provided to refugees was more than double that for the local population with the primary reason given that refugee health care provided by the international NGO was of a higher quality.

- What is actually included in the package Eg primary or secondary care, includes HIV/AIDS prevention or not

- Use of existing health facility structures or not

- Degree of outreach

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[68] Macroeconomics and Health: Investing in health for economic development. Report of the Commission on Macroeconomics and Health. WHO 2001
[69] Laxminarayan R, J Chow, SA Shahid-Salles 2006 Intervention Cost-effectiveness: Overview of main messages in Disease Control Priorities in Developing Countries, 2nd edition ed DT Jamison et al: 54-55
[70] Orach et al. Costs and Coverage of reproductive health interventions in three rural refugee-affected districts, Uganda. Trop Med Int Health 2007;12 (3): 459-69

A.1.4. **Food assistance and emergency livelihood support**

A.1.4.1. Unconditional Food Aid

Unit cost of inputs

According to US Title II food aid commodity cost list, as provided by the Food for Peace commodity calculator for the fiscal year 2009, a typical daily adult ration of approximately 2,100 kcal costs between USD0.14 per person per day and 0.34 per person per day depending on the commodity used. These costs are for commodities only.

Land transport, storage and handling (LTSH) are significant cost drivers, particularly in Somalia, where for recent WFP EMOP, LTSH accounts for 26% of total cost of the operation. This compares to 15-18% of total costs for WFP Emergency Operation EMOP in Kenya. For Kenya operations, food costs are on average 50% of the total cost. For Somalia, the figure is around 40%.

Efficiency – unit cost of outputs – cost per beneficiary per year

Kenya

Preliminary results shared from ECHO's new database on Costs Observed for Results, show that 2 consecutive WFP food assistance operations in Kenya cost Euro 0.18 per person per day to provide a daily food ration of 2100 kcals per person. The cost of delivering 1 metric tonne of food was Euro 343 per MT. From the WFP ECHO final report for the refugee programme in Kenya, in 2009 cost per beneficiary per year for general food distribution was Euro 102 (0.28 per day) for a daily ration of 2,061 kcals.

According to WFP Standard Project Report (SPR) 2009 for Protecting and Rebuilding Livelihoods in ASAL areas of Kenya, the cost of providing food assistance was USD 131 per person per year (USD 0.36 per person per day). The assistance provided included a general food distribution GFD of 1,749kcal per person per day (75% energy requirements), supplementary food ration for under fives and pregnant and lactating women, school feeding and a food for assets programme. Cost per MT food delivered was USD 889. Both cost per beneficiary and cost per MT are higher than those estimated in ECHO COR database for a similar programme. It is difficult to determine factors explaining the differences but they may be related to the methodology used for the ECHO database compared to calculation of costs in the WFP SPR.

Somalia

Through the 2011 Somalia CAP, WFP are requesting USD 180,335,412 to meet the needs of 1,030,000 persons for one year. This proposal covers not only general food distribution but also supplementary feeding for malnourished women and children, food for assets and school feeding. Cost per beneficiary is USD 175 per person per year (USD0.47 per day). Cost per MT is USD 913.

Comparative evidence

Table A.1.4.1 below compares the cost of WFP EMOPs in Somalia and Kenya with other African countries, according to data from DFID sources[71]. The table shows the average cost of unconditional food aid per MT is USD 1037 (range USD 845 – 1326) while average cost per beneficiary is USD 90 per year (range USD 41 to 136).

Values for cost per beneficiary per year are lower here than the figures for Kenya and Somalia quoted above, whilst cost to deliver 1 MT food in Kenya are similar (although higher than the ECHO COR estimation). Possible explanations for these differences are difficult due the fact that the DFID data in the summary table are undated and without contextual background information on ration size and composition or types of programme being implemented.

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[71] Source DFID Business case model for Chad

Table A.1.4.1Comparison of cost of WFP EMOPS in Africa countries

Country	$ cost per MT	Kg per ben.	$ cost per beneficiary per year
DR Congo	1326	61	81
Ethiopia	845	91	77
Kenya	880	55	49
Somalia	946	126	119
Sudan	1310	104	136
Uganda	1320	51	68
Zambia	1106	37	41
Zimbabwe	962	78	75
Chad	1282	100	129
Average	1037	87	90

There is further comparative evidence from preliminary results of ECHO's COR database. Results shared identified unit costs of food assistance in 12 cases in 5 African countries during 2009 and 2010. The cost of providing food in 2100 kcals per person per day was on average EURO 0.26, (max 0.47 min 0.13). This corresponds to US$ 0.36 per head/day.

For a sample of 6 of the same projects (from Congo, Kenya, Tanzania, Burundi and Sudan (2)), the cost of delivering 1 metric tonne of food was on average EURO 534 (max 811 min. 343), or US$ 731. These costs include the commodity itself, transport, personnel and direct support costs. This average cost is lower than the DFID sourced figure of USD 1037 presented in Table A.1.4.1., due to the different composition of the samples, and the relative weights of land-locked countries in each.

According to ECHO data specific to Tanzania, WFP food assistance to refugees in Tanzania in 2006 cost of food per refugee per year was USD 112. Food assistance accounted for 49% of the total assistance to refugee operations. Earlier data from Tanzania for 2003, the cost of food per refugee per year was USD 66 but this was for an incomplete ration. It was estimated that the cost for full ration would be USD 75 per refugee per year (USD 0.2 per day).

By way of a global background, according to WFP analysis 2008[72], the average cost per beneficiary of protracted relief and recovery operations (PRRO) was US$63.14 per year and for EMOPs was US$66.14 per year. WFP assistance delivered through development projects were the most cost-efficient at only US$23.5 per year.

Cost effectiveness – cost per outcome

Measuring the impact of food aid is difficult (Shoham 2004) although food aid undoubtedly saves lives in emergencies. Assessing the cost-effectiveness of providing food aid is technically difficult and in emergencies may be ethically inappropriate.

Summary for food assistance: factors explaining cost differences

For Food Aid

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[72] WFP's Operational requirements, shortfalls and priorities for 2008. October 2008

- whether all food committed is actually distributed within project cycle
- composition of the food basket provided
- quality of food basket provided compared to minimum standard of 2,100kcals per person per day
- logistics is the highest cost driver. In context of Somalia, the high cost of transport, access and security drive the overall cost of the programme up. Similarly, although to a lesser extent, in NE Province of Kenya.

For emergency food security and livelihood support

- the objective of the programme and its precise components
- livelihood zone affected

For cash/vouchers

- the objective of the programme
- availability of funds. There may be a trade off between reaching more beneficiaries with a small sum vs providing fewer beneficiaries with a larger sum.
- Delivery mode – cash transfers may reduce IP administrative costs compared to voucher redemption
- Staff capacity – existing staff capacity will reduce overall delivery costs
- Value of the transfer – higher value increases cost efficiency of delivery per beneficiary
- Rural vs urban context – cash grants in rural situation may entail high cost of security and transport

A.1.4.2. Emergency support to Livelihoods

Economy - Unit cost of inputs

Somalia

Indicative price guides for the unit cost of inputs into sector interventions eg seeds, tools, fertilisers can be found in the Somalia IASC Agriculture and Livelihoods Cluster's Minimum Guidelines for Agricultural and Livelihood Interventions in Humanitarian Settings 2010.

Kenya

The ECHO funded Post Election violence recovery project 2008[73] calculated that the average cost of inputs required to produce one acre of maize with fertilizers was Euro 150 (Ksh 15,000).

Efficiency – cost per beneficiary

The Somalia IASC Agriculture and Livelihoods cluster have calculated that on average it costs an agency USD 240 per household to deliver asset preservation assistance to that household ie to prevent an at risk household sliding from one IPC phase to the next. This figure is based on a review of all CAP proposals within this sector from recent years from which an average amount appealed for per household was calculated.

For the recent second round of CHF allocations, new cost criteria have been established. It was decided that USD 150 to 240 per household is sufficient to contribute to minimum

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[73] Nicholson N (2009) Lessons Learned from the Post Election Violence Early Recovery Programme in Kenya 2008-09. European Commission – Humanitarian Aid

purchasing power to prevent deterioration in nutrition status. This range is based on a review of the 2010 CAP proposals – an average cost per beneficiary of received proposals, rather than any technical calculation of needs. To balance funding constraints with number of beneficiaries in need, projects meeting a cost per beneficiary of USD 150 were given priority. For projects to be approved, direct costs are required to be 60% or above of total project costs.

A.1.4.3 Cash based transfers

There is a growing recognition in the humanitarian sector that in an emergency, cash transfers and vouchers can be appropriate and effective tools to support populations affected by disasters in a way that maintains dignity and choice for beneficiaries while stimulating local economies and markets. Cash based transfers may be conditional or unconditional.

Cash based approaches have been used successfully in both Kenya and Somalia. In Somalia, this is despite the volatile and politically complex environment. Horn Relief Guidelines for Cash Interventions in Somalia 2010 provide extensive background information on use of cash/vouchers in Somalia setting minimum standards for such interventions, and information on appropriate timing according to Somali seasonal calendar to understand the likely impact of interventions.

A.1.4.3.1 Value of cash based transfers

Kenya

Experience on setting the value of unconditional cash based transfers in Kenya is provided by the evaluation by Nicholson (2009) of six ECHO funded Post Election Violence Early Recovery Projects. The original intention of these projects was to provide each direct beneficiary with the equivalent of Euro 150 (Ksh 15,000) to recover livelihoods. This figure was based on the average cost of inputs required to produce one acre of maize with fertilizers. Following needs assessments, one project maintained this value, the others revised the figure down, the lowest being to Ksh 5,750 based on the fact that many beneficiaries were able to provide some of the inputs (eg seed) and a significant proportion only had access to half an acre of land. However, the evaluation concluded this value almost certainly underestimated requirements and in fact there should have been greater consistency between agencies which were all operating in the same livelihood zones.

Other examples of unconditional cash vouchers in Kenya include Concern Worldwide in Moyale, where a cash voucher was provided worth Euro 20 (USD 26) per month per household for 6 months to meet minimum needs and protect livelihoods. Care International provided food vouchers aimed at meeting immediate basic needs of those affected by post election violence in 2008. The value of the voucher was USD 14 to be redeemed at Nakumatt against food and non food items. Evaluation was positive overall in meeting immediate needs but the intervention was considered unsustainable as it was expensive and high food prices limited purchases.

A more recent example specific to the arid lands of Kenya is provided by the ECHO- funded Oxfam-led NGO consortium Drought Mitigation project 2011. The consortium calculate that an average minimum food basket providing 2,125kcal per person per day for a household of 2 adults and 4 children costs on average Euro 75 (USD 90). This value is based on market surveys and assuming all commodities need to be purchased. The composition of the food basket is decided according to the dietary preferences of pastoralists. Table A.1.4.3.1a describes the food basket and unit costs of each of the inputs.

Table A.1.4.3.1a Composition and cost of an average minimum food basket for Arid Lands, Kenya based on household of 2 adults and 4 children

Food	g/person/day	Kg/person/day	Kg/Month	KSH/kg	Total KSH
Maize grain, white	400	0.4	12	50	600

Beans, dried	50	0.05	1.5	80	120
Oil, Vegetable (WFO Specs)	25	0.025	0.75	100	75
Sugar	20	0.02	0.6	100	60
Salt, iodised (WFP specs)	5	0.005	0.15	50	7.5
Leaves, dark green eg spinach			0		0
Beef, moderately fat	50	0.05	1.5	200	300
Milk, goat, whole	200	0.2	6	125	750
HH demand (2 adult, 4 children)					7650

Based on this and considering other sources of support, remittances and income, the consortium calculate **for an average support per household a safety net support of Euro 67 to 112 as adequate to meet minimum livelihood needs**.

Somalia

The ISAC Agriculture and Livelihoods cluster guidelines recommend that the value of cash interventions aimed at meeting basic household needs should be at least the amount required to purchase the minimum expenditure basket of food and non-food items as defined by the Food Security and Nutrition Analysis Unit for Somalia (FSNAU) (Table A 1.4.3.1b).

Table A.1.4.3.1b Current FSNAU Minimum expenditure basket (food and non-food items)

MINIMUM BASKET	SOUTH		CENTRAL/NORTH	
	Minimum Food (per household per month)			
	Urban Town	Rural Town	Urban Town	Rural Town
SORGHUM	95kg	95kg	95kg	95kg
W. FLOUR	3.75kg	3.75kg	3.75kg	3.75kg
SUGAR	5kg	5kg	5kg	5kg
V. OIL	4Lt	3Lt	4Lt	3Lt
MILK	15Lt	X	20Lt	x
MEAT	4kg	2kg	10kg	5kg
TEA LEAVES	0.5kg	0.5kg	0.5kg	0.5kg
SALT	1.5kg	1.5kg	1.5kg	1.5kg

COWPEAS	6kg	x	4.0kg	x
	Minimum Non-Food			
Kerosene	1.5Lt	1.5Lt	1.5Lt	1.5Lt
Soap (Laundry Bar)	4pcs	4pcs	4pcs	4pcs
Firewood (bundle)	30	X	10	x
Water (Jerican 20Lt)	5	5	5	5
Human Drugs (SoSh)	20,000	10,000	20,000	10,000
Grinding Cost	30kg	30kg	9kg	13kg
Clothes (SoSh)	30,000	30,000	30,000	30,000
School Fees (SoSh)	90,000	52,000	90,000	52,000
Social Tax (SoSh)	12,500	12,500	12,500	12,500
Other (SoSh)	30,000	30,000	30,000	30,000

From market survey data, the FSNAU compiles the Consumer Price Index (CPI) which indicates the value of the minimum expenditure basket in different regions of Somalia. Table A.1.4.3.1c shows the variation in CPI between the different regions and compares the values of CPI by region for 2010 and 2011. This data suggests the value of cash based transfers would be lower in USD in the NW regions compared to the rest of Somalia as in the North West the amount required to purchase a minimum expenditure basket is less than half that in other regions.

Table A.1.4.3.1c Variation in Consumer Price Index in Somalia by region and year

Region	Consumer Price Index	
	February 2010	**February 2011**
NE Regions	$220	$251
Central Regions	$236	$273
South	$194	$256
NW regions	£113	$114

In an ACF 2006 cash for work intervention in Bay and Bakool regions rates of cash transfer were based on the cost of restocking[74]. In the first phase ACF distributed USD 30 for 10 to 12 days work, sufficient to purchase 2 goats; in the second phase, USD 48 per household was distributed for 20 days work which was calculated as sufficient to purchase 3 goats and basic items. For a Horn Relief

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[74] Mattinen and Ogden. Cash-based interventions: lessons learned from Southern Somalia. Disasters 2006, 30(3): 297-315

and Norwegian People's Aid cash intervention in Sool Plateau, in North Somalia 2003-04[75], an interagency assessment recommended USD 100 per household based on a minimum expenditure basket of USD 100 for a poor household. However, due to lack of funding, actual distribution was USD 50 to last one and a half to two months.

These examples highlight how the value of the cash based transfer depends on the specific objective of the project, whether the transfer is conditional or unconditional, the livelihood zone targeted and may yet be limited by the amount of funding available.

When considering value for money of cash-based approach, there are three issues: i) the relative cost efficiency of different delivery mechanisms eg cash vs vouchers, ii) the relative cost efficiency and iii) cost effectiveness of cash based approach compared to in kind distribution of inputs.

A.1.4.3.2 Cost efficiency of different delivery mechanisms of cash based transfers

Evidence for the relative cost efficiency of different cash transfer delivery mechanisms in Kenya is provided by an evaluation of six ECHO funded post election violence projects by Nicholson[76]. The methodology used was to compare two denominators for each of the six projects. These denominators were the costs each project incurred to 1) transfer each unit of Ksh 1,000 to recipients and 2) cost of delivery per beneficiary. Results are summarised in Table A.1.4.3.2a.

Table A.1.4.3.2a Comparison of the cost efficiency of different cash transfer mechanisms in Kenya 2008

Organisation	Type of transfer	Unit Value KSH	No. of beneficiaries	Value of Transfer KSH	Cost of delivery EUROS	Delivery cost per KSH 1,000 (EUROS)	Delivery cost per beneficiary (EUROS)
World Vision	Agriculture voucher	13,200	3,480	45,936,000			
s/total			**3,480**	**45,936,000**	**290,640**	**6.33**	**83.50**
CARE	Agriculture voucher	7,000	3,500	24,500,000			
CARE	Agriculture voucher	2,000	90	180,000			
CARE	In-kind tree seedlings	200	3,500	700,000			
s/total			**3,500**	**25,380,000**	**544,313**	**21.45**	**155.50**

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[75] Ali et al. Cash relief in a contested area: Lessons from Somalia ODI/HPN Network Paper No. 50 March 2005
[76] Nicholson N (2009) Lessons Learned from the Post Election Violence Early Recovery Programme in Kenya 2008-09. European Commission – Humanitarian Aid

GAA	Crop farming voucher	5,750	1,268	7,291,000			
GAA	Plough voucher	5,750	78	448,500			
GAA	Farm set voucher	5,750	1,369	7,871,750			
GAA	Poultry voucher	5,750	268	1,541,000			
GAA	Tailoring voucher	10,300	392	4,037,600			
GAA	Materials voucher	10,300	10	103,000			
GAA	Cereals voucher	10,300	224	2,307,200			
GAA	Paraffin voucher	10,500	82	861,000			
GAA	Boda boda voucher	10,300	19	195,700			
GAA	Carpentry voucher	10,300	28	288,400			
GAA	Retail voucher	10,500	354	3,717,000			
s/total			**4,092**	**28,662,150**	**252,455**	**8.81**	**61.70**
CRS	Agriculture voucher	15,000	5,270	79,050,000			
s/total			**5,270**	**79,050,000**	**249,705**	**3.16**	**47.40**
SC UK	Agriculture voucher	10,000	2,100	21,000,000			
SC UK	Cash for work	8,000	500	4,000,000			
SC UK	Cash grant	8,000	50	400,000			
SC UK	In-kind livestock health		2,226	1,454,700			

s/total			4,430	26,854, 700	350,053	13.03	79.00
ACF	Cash grant	10,000	1,000	10,000, 000			
s/total			1,000	10,000, 000	102,805	10.28	102.80
TOTAL				215,882 ,850			

The most cost- efficient project was found to be voucher redemption through registered suppliers (CRS), mainly because this project applied the highest value of cash transfer to each beneficiary, but also because staff costs were low and redemption was through existing retail outlets rather than agriculture fairs. In theory, the one project delivering cash grants should be expected to be more cost efficient as administrative costs to the project (largely borne by the bank involved) should be less than voucher redemption. In this particular case, cost efficiency of the project was reduced due to high project costs resulting from the size of the team required to rollout and monitor the project.

Overall, the evaluation found that cash based transfers tend to be more efficient when the value of the voucher is higher and existing staff capacity at field level is higher.

The cost efficiency and choice of method of delivery will also depend on the urban/rural context of the programme. In rural Kenya, Oxfam and German Agro Action for example deliver cash payments directly themselves as it is the cheapest option. In contrast for the new Oxfam urban programme is has been noted that the cost of delivering cash via M-Pesa/Safaricom will be much less than it costs to deliver the same amount in rural areas where the major costs to Oxfam are insurance payments, security escorts and vehicles[77].

A.1.4.3.3 Cost efficiency of cash transfers vs in kind distribution of inputs

In principle, the cost- efficiency of cash based approach compared to in-kind distribution of inputs will depend on the prices of goods or services in the local market compared to how much it would cost an agency to deliver them. Cash-based programmes are likely to have lower transport and logistic costs but higher administrative costs. However, as the two case studies from WFP described below highlight, delivering in-kind food may actually prove more cost- efficient due to the ability of WFP to obtain low procurement prices compared to prices in local markets. These two case studies do not, however, measure the extent to which in kind inputs were monetized to buy other commodities. When assessing cost efficiency it is also necessary to consider this and other factors such as the secondary economic effects of cash based transfers[78]. Another obvious problem with comparing cost-efficiency is that the comparison depends on a reliable estimation of the projected price of local cereals. This may be difficult in the early stages emergency response planning. If the price is an over estimation, it will reduce the cost-efficiency of cash transfers compared to the real value[79].

An evaluation of the Cash Consortium in Southern Somalia: Oxfam, Horn Relief with AFREC, Development Concern and WASDA (Majid et al 2006 citied in Lor-Meddiabadi & Adams 2009) found that the costs of the cash programme were 17% lower than the costs if the same assistance had been provided as food as in a food for work programme. However, the evaluators noted two important

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[77] Harvey et al Delivering Money. Cash Transfer Mechanisms in Emergencies CaLP 2010
[78] ECHO 2009. The use of cash and vouchers in humanitarian crises. DG ECHO Funding Guidelines
[79] Lor-Mehdiabadi & Adams. Evaluation and review of cash and vouchers in Humanitarian Crises. Part 2: Review Report ECHO 2009

limitations to the analysis: i) the two approaches have different targeting policies, ii) the two approaches each had positive indirect effects on the local economy which were difficult to measure and iii) the scale of the response was different.

The WFP Cash and Food for Livelihoods Pilot (CFLP) project was implemented in southern Malawi over eight months from October 2008 to May 2009 for 11,100 households[80]. The CFLP project was designed to prevent acute hunger and invest in disaster prevention and preparedness measures by providing cash, food and mixed cash/food transfers in exchange for the participation in the construction of community assets. Target beneficiaries were randomly selected for the different transfer types to allow analysis of the relative cost efficiency and effectiveness of the different interventions.

The value of the cash transfers was based on the value of the WFP food basket, monitored daily at local markets and government grain reserve depots. Food beneficiaries received 50kg cereal and 5kg beans a month and mixed beneficiaries received the local market value of the cereal ration in cash and the pulse ration in-kind.

Cost efficiency was measured by calculating an Alpha value. This measures the total direct operational cost to deliver every USD1 equivalent of cash or food to the beneficiary. In effect this compares the overall cost to deliver food to the beneficiaries with the local market value of the same commodities. The alpha value is calculated by comparing: i) the local market prices of the same or similar food items of the food basket with ii) the total direct operational costs to deliver this food in kind.

Surprisingly, in all scenarios, in kind food distribution had a higher alpha value ie was more cost efficient than cash or mixed transfers. This unexpected result can be explained by the following: food can be purchased and delivered at lower than it s local market value if WFP procures when prices are low or if the prices at the local market do not follow international prices as was the case in Malawi. USD1 cash will always cost USD1 plus the delivery costs, whereas if food is procured at a cheaper price than the value of the same commodities on the local market, the total direct operational costs to deliver this food can be less than the local market prices. If the difference between WFP purchase value and the recipient transfer value is large enough, operational cost savings of cash are negated. One limitation of this analysis is that the extent to which in kind food commodities were monetised to meet other needs was not measured.

Another similar example comes from Boliva[81] which also found that when comparing only the costs of operating/handling food with cash transfers, the calculated costs of delivering food in kind are 9.7 to 12.9 times higher than the direct costs of providing cash, making the cash transfer project more efficient. However, when overall project costs are taken into consideration, in kind food becomes more cost-efficient. As in the Malawian example, this was due to the relatively higher local market prices of food commodities compared to the wholesale prices of WFP procurement. The transfer value of the daily food basket at market prices per household was USD 1.45 whereas the total direct operating costs to WFP were USD 1.3 to provide the same food basket. The alpha value was therefore 111%.

A.1.4.3.4 Cost effectiveness of cash transfers vs in kind distribution of inputs

Cost effectiveness or cost per outcome indicators of cash transfers or in-kind inputs may include sustainability, broader social or economic effects and impacts eg increased incomes, increased yields, improved food security indicators, reduced malnutrition.

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[80] Audsley et al Comparing cash and food transfers: a cost-benefit analysis from rural Malawi. Chapter 7 of Revolution: From Food Aid to Food Assistance WFP
[81] Herrmann 2009: Conditional Cash transfers. Their feasibility as a food security tool for WFP in Bolivia

The evaluation of ECHO funded post election violence recovery programme 2008 by Nicolson did not attempt to analyse whether it would have been more cost effective to implement in-kind rather than cash interventions because from the outset all projects had assumed that generating business to local traders was as much a benefit to the local economy as the cash transfers to beneficiaries.

However, an interim monitoring report for one of the projects (SC UK) [82] found that farmers generated about Ksh 72,000 from the initial assistance of Ksh 10,000 provided as a voucher. The resulting increased purchasing capacity enabled beneficiaries to purchase agricultural inputs, mechanical land preparation and agricultural labor which in turn would enable farmers to plant staple and vegetable crops during the forthcoming long rains cropping season.

In the WFP CFLP project in Malawi, cash was found to be significantly more effective in improving food security indicators than in kind food or mixed transfers. It was also found to be the cost effective transfer. Cost effectiveness of the three different transfer types was calculated according to the cost of raising three food security indicators by 1% of their baseline value. The programme costs required to raise the three food security indicators by 1% of their baseline value was found to be significantly lower for cash than for food or mixed transfers (see Table A 1.4.3.4).

Table A.1.4.3.4 Costs of increasing food security indicators by 1% (WFP Malawi)

Transfer type	Food security Indicators		
	Food consumption	Food diversity	Consumption group
Food	$46,230	$622,726	$84,099
Cash	$19,451	$40,284	$37,698
Mixed	$31,844	$86,753	$50,952

An important conclusion from the WFP Malawi study therefore is that although cash was the least cost- efficient intervention, it was undoubtedly the most cost- effective in terms on its impact on household food security.

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[82] SC UK Livelihoods Recovery Programme Interim Monitoring Report February 2009

A.1.5. Refugees

Several studies by ECHO of the cost of its care and maintenance refugee operations in Western Tanzania at various times between 2001 and 2006 show costs per refugee of $127-148 (2001), $140 (2003) and $225 (2006), the levels being very sensitive to economies of scale from the size of camp populations.

Appeals by UNHCR for Kenya for 2010 and 2011 were based, respectively, on costs per refugee of $187 and $242.

UNHCR's actual annual costs per refugee since 2003 have varied from US$73 to 151, with the higher figures largely accounted for by the extra costs of dealing with new arrivals.

Information on direct cost per beneficiary at proposal stage for protection, basic needs and essential items calculated from UNHCR Kenya 2001 and 2011 appeals are presented in Table A.1.5.1. These figures are direct costs only and do not include programme support costs.

Table A.1.5.1 Costs per refugee of UNHCR Appeals for Kenya, 2010 and 2011

Services	2010 Appeal	Amount per refugee 2011 Appeal (USD) per year
Protection	59.0	46.9
Food security	1.73	0.38
Nutrition	8.00	11.37
Water	15.11	22.27
Shelter and other infrastructure	25.30	39.0
Basic domestic and hygiene items	13.66	33.7
Primary health care	18.42	24.7
HIV and AIDS	5.1	6.2
Education	23.38	40
Sanitation services	17.66	18
Total per refugee	**$187.5**	**$242.5**

The amount appealed for per refugee in 2011 is 30% higher than 2010. The cost per refugee of most services, with the exception of protection has gone up. Possible factors explaining higher costs include higher global fuel prices and camp expansion requiring increased investment in shelter and infrastructure.

The actual costs of UNHCR refugee programmes in Kenya over the last 9 years are shown in

Table A.1.5.2. The figures for 2011 are incomplete and not strictly comparable to others in this table.

UNHCR
United Nations High Commissioner for Refugees
Haut Commissariat des Nations Unies pour les réfugiés

Table A.1.5.2. FUNDING TRENDS FOR THE KENYA REFUGEE PROGRAMME 2003 – 2011 (US$)

	2003	2004	2005	2006	2007	2008	2009[1]	2010	2011
Refugee population figures[2]	242,468	249,108	242,359	274,360	271,494[3]	320,605	380,317[4]	581,195	564,864
Overall funding requirements[5]	49,463,472	50,818,032	49,357,218	55,969,440	40,000,000	57,120,000	50,506,663	111,639,081.00	182,756,503
Actual funds allocated[6]	17,800,000	18,547,212	22,681,602	22,342,987	35,472,375	48,746,077	47,556,825	72,572,023.00	44,682,897
Per capita cost per refugee per month[7].	6.1	6.2	7.7	6.7	10.8	12.6	10.4	10.4	6.6
Per capita cost per refugee per day.	0.2	0.2	0.25	0.2	0.3	0.4	0.3	0.3	0.2

[1] As at 09/09/2009

[2] Annual Statistics Report.

[3] Figure does not include 100,000
stateless

[4] Population as at 31 August
2009.

[5] Represents the total funding requirement to meet the minimum standards of emergency
humanitarian assistance.

[6] Actual funding allocated for the whole country programme including emergency interventions and
repatriation.

[7] Based on actual funds received.

Several cost studies have been done by ECHO of care and maintenance programmes for refugee settlements in Western Tanzania. The first of these was carried out in 2001, when the settlement population was 450,000[83]. The second analysis was performed by ECHO Tanzania using 2003 data, when the refugee population was c. 500,000, and the third by ECHO's Implementing Partners (UNHCR, WFP and UNICEF) for 2006 for settlements totalling c. 350,000.

The IP study was the most detailed, concerning three camps with populations of c. 49,000, 231,000 and 68,000 in 2006. The IPs provided Care and Maintenance for these established settlements, which were in the process of being run down. Hence data exclude set-up costs such as shelter, reception, etc., though for water services existing facilities were being upgraded. In comparing the two results in Table A.1.5.3 the larger population size in the ECHO analysis should be kept in mind.

The annual costs of the various components per refugee are shown in Table A.1.5.2.

Table A.1.5.3 Annual cost per refugee of Care and Maintenance Programme in Western Tanzania (US$)

Sector	IP 2006: Average cost per refugee	IP 2006: Cost range in 3 camps, maximum/minimum	ECHO 2003 : average cost per refugee	ECHO 2001: av. Cost per refugee[84]
Food	112.12	113.31/111.10	66.0	70-90
Protection, monitoring, coordination	37.58	51.81/26.97	23.02[85]	42-47 (inc. logistics)
Transport/logistics	17.23	19.72/14.74	11.67	
Domestic needs	7.01	7.09/6.91	2.9	
Drinking water	3.96	4.95/2.26	6.75 (inc. sanitation)	5 (inc. sanitation)
Sanitation	2.13	3.96/0.67		
Health/nutrition	16.08	18.94/14.14	16.29	12
Shelter/infrastructure	1.13	1.63/0.45	2.44	
Community services	6.05	11.31/2.88	3.23	
Education	5.65	9.59/2.94	5.51	
Crop production	0.42	1.26/0.00	-	
Forestry	1.04	1.62/0.48	2.00	
Legal assistance	5.49	6.09/5.12		
Agency operational support	9.42	15.36/5.03		

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[83] ECHO *the unit cost approach of humanitarian activities.* First draft, March 2001.
[84] Original costs in Euros, converted to US$ @ 1.06
[85] Protection only

| Total | 225.31 | 246.51/205.72 | 139.81 | 127-148 |

It was recognized at the time of analysis that the estimates of cost per beneficiary for Tanzania were quite low. The data was therefore cross checked and found to be valid. Reasons for lower costs include the fact that the programme was long term care and maintenance in a stable environment with a cooperative host government. The results in this table are not directly comparable with those in table A.1.5.1 due to the different way costs are calculated. In Kenya, costs are likely to higher for three main reasons: increase in global fuel and food prices since 2006, high numbers of new refugee arrivals, age of the camps meaning structures and facilities are in need of rehabilitation/upgrade, less cooperative host government.

Summary for refugees: factors explaining cost differences

- Scale. The size of population in each settlement is the crucial determinant of unit costs, since there are strong economies of scale in providing the major services entailed.

- Likewise, stable settlements with a sedentary population would normally show lower cost per beneficiary than fluctuating settlements requiring "outreach" and/or underutilisation of capacity provided.

- Linked to the previous factor, care and maintenance programmes for a stable or declining refugee population can avoid the costs incurred in the creation of new shelter and other one-off costs of setting up services for new arrivals.

- in practice, the category "protection, monitoring, coordination, logistics, etc" tends to form a high proportion of total costs. If certain items (protection, or logistics, for instance) are unduly high in particular situations, this would bias unit costs upwards; in any case, this category of costs needs to be disaggregated as much as possible since it could include administrative overheads.

A.1.6. Shelter and Non-Food Items

Somalia

Shelter and Non Food Items Cluster CAP 2011 appeal proposals

From 6 proposals in this sector the range of cost per beneficiary is USD 12 to 67. Five out of 6 proposals appeal for USD 12 to 30 per beneficiary to provide a range of activities including emergency non food and shelter items.

Kenya

The following data has been received from UNHCR for the cost of shelter and non-food items in their current refugee programmes. The cost if shelter is expressed per household: Dadaab data includes labour and building materials, and for Kakuma only building materials. In the non-food item table, 15 % should be added to the costs to include transport.

Cost of Shelter			
Dadaab	37,330.00	465.40	
Kakuma	11,862.00	147.89	
Non Food Items			
Sequence Number	**Item**	**Unit**	**Cost per Unit**
1	Fleece Blankets (item ID: 2028)	EA	$2.85
2	Kitchen/Cooking Set (B) (item ID: 2040)	SET	$13.50
3	Mosquito nets (item ID: 1998)	EA	$4.16
4	Reinforced Plastic tarpaulins in sheet (4 x 5 m) (item ID: 2617)	EA	$13.650
5	Reinforced Plastic tarpaulins in roll (5 x 50 m) (item ID: 3153)	EA	$136.500
6	Tent, Ridge double fly double fold (4m x 4m) canvas (item ID: 1993)	EA	$148.900
7	Heavy Duty Plastic Bucket 15 L (item ID: 4165)	EA	$1.790
8	Semi-Collapsible Jerry cans 10 liter (item ID: 96)	EA	$1.380
9	Synthetic Sleeping Mats (item ID: 2020)	EA	$1.170

10	Cloth for Sanitary Material (item ID: 2098)	SQM	$0.700

Factors for shelter and non-food items explaining cost differences

- coverage of the programmes differ widely

- variation in market prices of materials and non food items, eg tents, plastic sheeting

- geographical location of the crisis, affecting logistical and transport costs

Annex 2. List of persons consulted

(based in Nairobi, unless otherwise stated)

Francesco Baldo, ISAC Somalia Agriculture & Livelihoods Cluster Chair

Nancy Balfour, Chief, WASH, UNICEF Somalia Support Centre

Herve Belliot, Country Director, Kenya, Action Against Hunger (ACF)

Mark Bowden, UN Resident Humanitarian Coordinator for Somalia

Pippa Bradford, Deputy Country Director Kenya, World Food Programme

Antonio Canhandula, Deputy UNHCR Kenya

Regis Chapman, Head of Programme, Somalia Country Office, World Food Programme

Nicholas Cox, Regional Adviser, USAID OFDA

Catherine Fitzgibbon, Programme Quality and Design Director, Kenya Programme Save the Children UK

Juliane Friedrich, Nutrition Sector Support Team, ECHO

Megan Gilgan, Chief, Field Operations and Emergency, UNICEF Kenya

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Abdillahi Yusuf, Country Director Somalia, OXFAM

Sonia Zambakides, Regional Programme Manager, Central South Somalia, Save the Children

Annex 3. Bibliography

Ali et al. Cash relief in a contested area: Lessons from Somalia ODI/HPN Network Paper No. 50 March 2005

Apthorpe, Raymond: "Some relief from development: humanitarian emergency aid in the Horn of Africa (including Sudan), Rwanda and Liberia." *The European Journal of Development Research.* Vol 9, no. 2. Dec 1997

Ashdown, Lord Paddy: *Humanitarian Emergency Response Review* (HERR). DFID, 28 March 2011

Audsley et al Comparing cash and food transfers: a cost-benefit analysis from rural Malawi. Chapter 7 of Revolution: From Food Aid to Food Assistance WFP

Ayieko et al. The economic burden of inpatient paediatric care in Kenya: household and provider costs for treatment of pneumonia, malaria and meningitis. *Cost Effectiveness and Resource Allocation 2009, 7: 3*

Bradly, Andrew Penn: "Cost-effectiveness analysis: an assessment of its application in evaluating humanitarian assistance". Working Paper 99-5 of the Asia Pacific School of Economics and Management, Australian National University, Canberra, 1999

Caldwell, R and Hallam, A 2004 *The Cost of Selective Feeding* in ENN Special Supplement on Community Based Therapeutic Care (available at: http://fex.ennonline.net/102/4-5.aspx).

Capobianco E and Naidu V. A review of health sector aid financing to Somalia 2000- 2006. World Bank Working paper no 142.

Center for Disease Control**:** *Economic evaluation of Child Health Days in Somalia.* November 2010 (seen as PowerPoint presentation)

Channel Research (CR): *Evaluation of the Common Humanitarian Fund (Synthesis Report)* 21 March 2011 (on behalf of OCHA).

Collier, Paul, "Conflicts", a chapter in Bjorn Lomborg, *Solutions for the world's biggest problems: costs and benefits".* Cambridge UP, 2007.

Collier, Paul: *The Bottom Billion*: *why the poorest countries are failing and what can be done about it.* Oxford UP, 2008

Collins S, Dent N, Binns P. Management of severe acute malnutrition in children. *Lancet* 2006; 368: 1992-2000

Development Initiatives: *Input into DFID's HERR.* Briefing Paper, Dec 2010

Devisme S. Le « coût-efficacité » des projets de nutrition financés par ECHO dans les pays ACP. ECHO 2003

DFID: *Humanitarian funding guidelines for NGOs.* October 2007

DFID: *Writing a business case.* How To Note, December 2010

ECHO: *The unit cost approach of humanitarian activities.* (unpublished report) March 2001.

ECHO: An evaluation of DG ECHO financed activities in the health sector, Final Report, November 2007

ECHO 2009: The use of cash and vouchers in humanitarian crises. DG ECHO Funding Guidelines.

EU Project Development: Rural Water and Sanitation Interventions in Northeast and Southern Somalia. Volume II. Preliminary Assessment and Strategic Approaches report Final Version. 24 February 2004

GHA 2010: *Global Humanitarian Aid Report 2010.*

Gibson, J. "Operation and maintenance costs of rural water supply schemes in South Africa". Paper for IRC Symposium 2010, *Pumps, pipes and promises.*

Griekspoor, Andre, Egbert Sondorp & Theo Vos: "Cost effectiveness analysis of humanitarian relief interventions: visceral leishmaniasis treatment in the Sudan". *Health policy and planning.* 14(1) 70-76, 1999

Hallam, Alistair: *Cost-effectiveness Analysis: a useful tool for the assessment and evaluation of relief operations?* Network Paper 15, Relief and Rehabilitation Network, Overseas Development Institute, London. April 1996

Harvey, Paul, Abby Stoddart, Adele Harmer, Glyn Taylor, Victoria DiDomenico & Lauren Brander, *The state of the humanitarian system: assessing performance and progress: a pilot study.* ODI, 2010.

Harvey et al Delivering Money. Cash Transfer Mechanisms in Emergencies. CaLP 2010

Herrmann 2009: Conditional Cash transfers. Their feasibility as a food security tool for WFP in Bolivia

Horton S, Shekar M, McDonald C, Mahal A, & Brooks JA, Scaling Up Nutrition: what will it cost? World Bank, Washington DC 2010

Hutton, Guy & Jamie Bartram: *Regional and global costs of attaining the Water Supply and Sanitation Target (Target 10) of the Millennium Development Goals.* WHO, Geneva. 2008

Hutton, Guy & Laurence Haller, *Evaluation of the costs and benefits of water and sanitation improvements at the global level.* WHO, 2004

IRC: *WASHCost: Life-cycle cost approach. Briefiing Notes 1&2. a*nd   *Research Report V1.0.* Nov 2010 www.washcost.info/pubs.

Laxminarayan R, J Chow, SA Shahid-Salles 2006 Intervention Cost-effectiveness: Overview of main messages in Disease Control Priorities in Developing Countries, 2nd edition ed DT Jamison et al: 54-55

Lor-Mehdiabadi & Adams. Evaluation and review of cash and vouchers in Humanitarian Crises. Part 2: Review Report ECHO 2009

Mattinen and Ogden. Cash-based interventions: lessons learned from Southern Somalia. Disasters 2006, 30(3): 297-315

MOH Uganda Supply Chain Management, Monitoring and Reporting of Outpatient Therapeutic Care Programs. A trainer's manual

Muschell J. Costing the Essential Package of Health Services for Somalia. UNICEF Report 9

Nackers F, Broillet F, Oumarou D, Djibo A, Gaboulaud V, Guerrin PJ, Rusch B et al Effectiveness of ready-to-use therapeutic food compared to a corn/soy-blend-based pre-mix for the treatment of childhood moderate acute malnutrition in Niger. *J Trop Paed 2010*

National Audit Office: *NAO Efficiency Toolkit: Toolkit introduction: understanding the efficiency toolkit.* June 2006

Navarro-Colorado C, Mason F and Shoham J (2008) Measuring the effectiveness of Supplementary Feeding Programmes in emergencies HPN ODI network paper number 63 September 2008

Nicholson N (2009) Lessons Learned from the Post Election Violence Early Recovery Programme in Kenya 2008-09. European Commission – Humanitarian Aid

Orach CG, Dubourg D, DeBrouwe V. Costs and Coverage of reproductive health interventions in three rural refugee-affected districts, Uganda. Trop Med Int Health 2007;12 (3): 459-69

Pavignani E, Correggia R, Pearson N Steps Towards Harmonising External Support. Health Care provision for the Somali People. UNICEF report 7

Ramalingam, Ben, John Mitchell, John Borton & Kristin Smart, *Counting what counts: performance and effectiveness in the humanitarian sector.* ODI, 2009

Salomons, Dirk, Monette Van Lith & Taleen Vartan, *Study of transaction costs associated with humanitarian pooled funds.* The Praxis Group, Ltd. 15 June 2009

UNICEF: *Narrowing the gaps to meet the Goals.* 2010

Wilford R, Golden K and Walker DG (2011) Cost-effectiveness of community based management of acute malnutrition in Malawi. Health Policy and Planning doi:10.1093/heapol/czr017

WHO: Macroeconomics and Health: Investing in health for economic development. Report of the Commission on Macroeconomics and Health. WHO 2001