

**RUTF (Ready-to-Use  
Therapeutic Foods):  
Addressing the  
situation of children in  
Africa with severe acute  
malnutrition**

**PIH/Tufts Conference  
12 October 2007**

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UNICEF**



**Product Selection**

**Focus: Build an affordable and sustainable national/regional and global production capacity of RUTF pastes**

**Immediate focus is for RUTF to treat children with severe acute malnutrition (SAM)<sup>1</sup>**



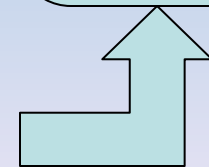
**Emphasis is on community-based care and treatment, with identification of SAM with the MUAC arm-band**



**Diagnosis is confirmed and monitored by a trained health worker with height and weight measuring equipment**



**Reminder  
c.15% of children with SAM and medical complications will need hospital care**



<sup>1</sup> Joint guideline on community treatment and care of children with severe acute malnutrition; WHO, WFP, UNICEF, SCN

**Product Selection**

Average product cost per diagnosis/treatment is around \$60, but overall programme costs variable

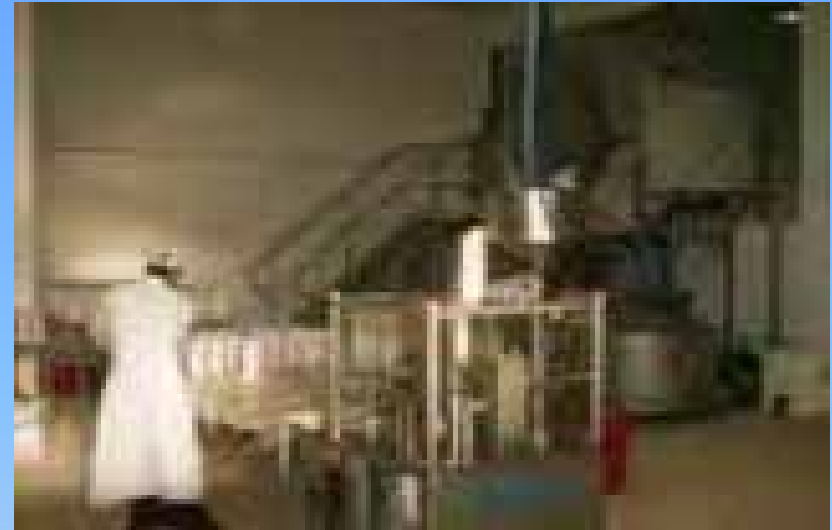


**National  
Production**

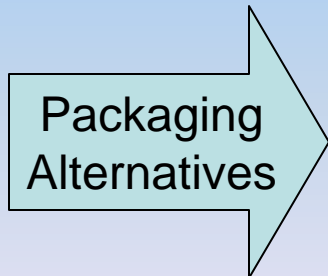
# National (local) production is feasible with appropriate transfer of technology and expertise



Project Peanut Butter (PPB); Blantyre, Malawi



Hilina Enriched Foods, Addis Ababa, Ethiopia



Small-scale capacity /  
pots



Medium-scale capacity /  
pots



Large-scale capacity /  
sachets

## **Benefits of national production; between food security and food assistance**

- Enhances national capacities – local food processors – which can also facilitate local distribution
- Uses local foods where available – peanut, oil, sugar – but needs imported foods – milk powder, vitamin/mineral mix
- Improves product recognition, with local languages on packaging and inserts - production being (relatively) close to consumers
- Facilitates the adoption of alternative products of RUTF and progression to ready-to-use supplementary foods (RUSF) and other ready-to-use foods (RUF)
- Politically attractive – which can boost attention to (mal)nutrition

**National  
Production**

Explicit production strategy is necessary – build capacity on RUTF, expand on RUSF, sustain on RUF

**Treatment**

**Prevention**

**RUTF**

**Build**

**FREE**

**Children with SAM**

**RUSF**

**Expand**

**FREE/  
SALE**

**Children with MAM  
Pregnant/lactating  
women**

**HIV+ population**

**RUF**

**Sustain**

**SALE**

**Well children  
Population at  
large**

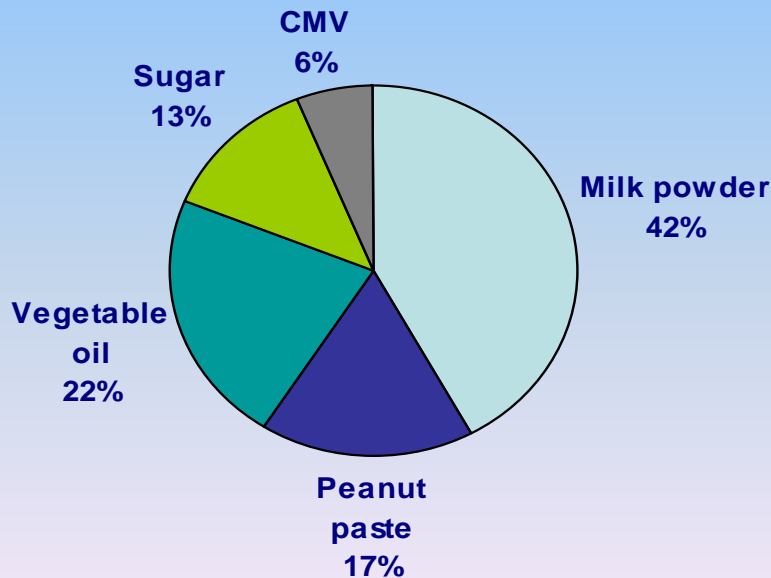
**Commercially Viable**

**National  
Production**

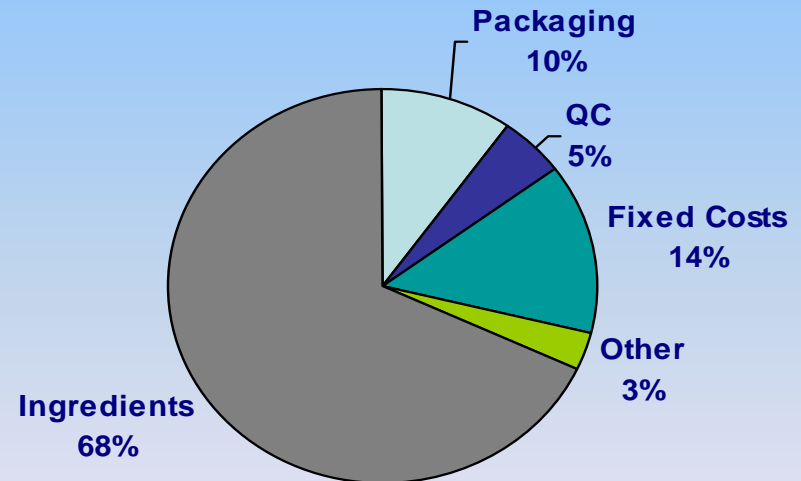
Ingredients make up two thirds of the national production cost of RUTF pastes, almost half of which is (imported) milk powder

**Need to remove import duties, sales taxes**

**Cost structure of RUTF ingredients**

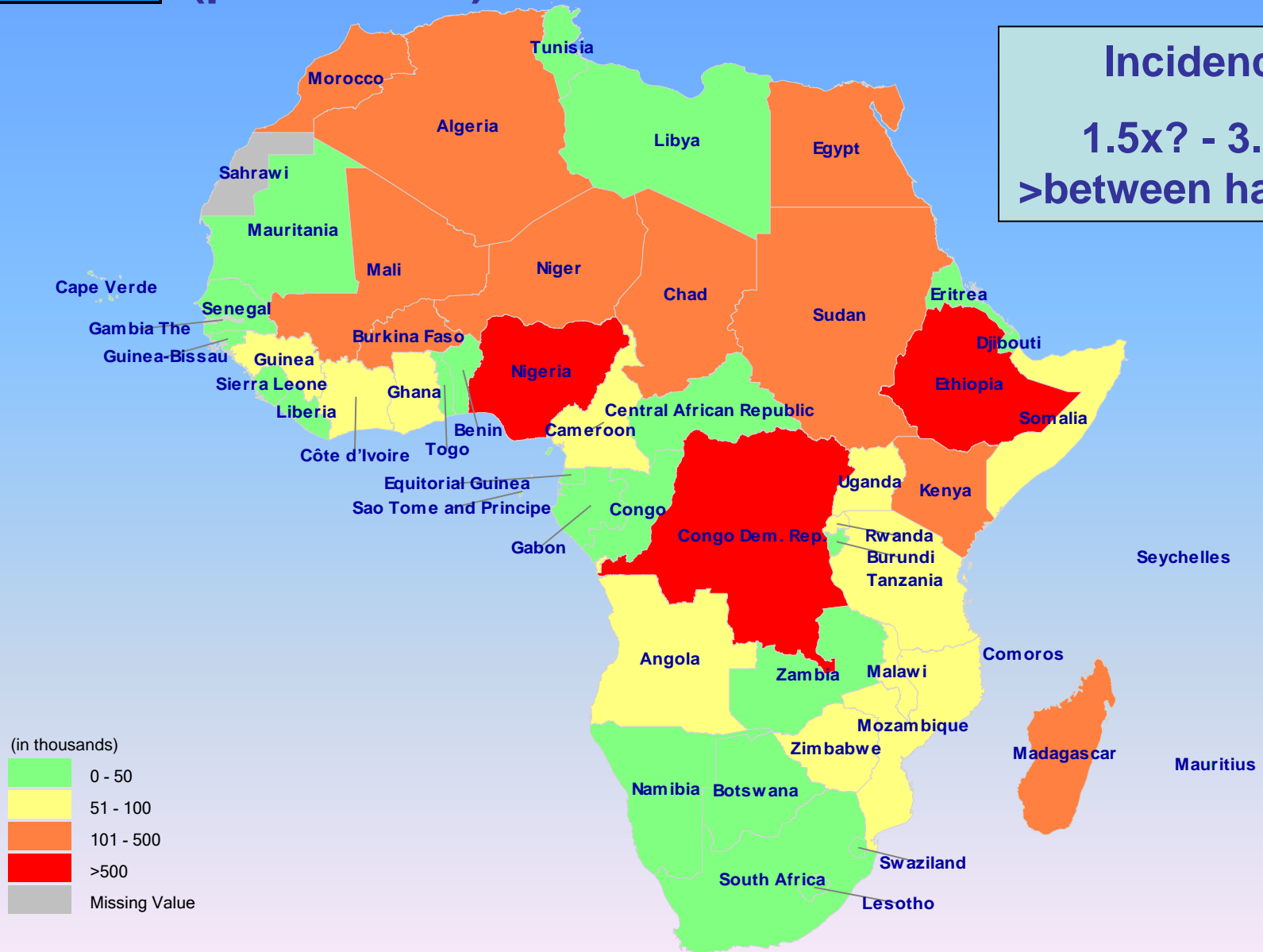


**Cost structure of RUTF production**



# Children in Africa with severe acute malnutrition (prevalence) = 6.2 million

Incidence:  
1.5x? - 3.0x?  
>between harvests



Source: WHO database based on new international reference population



**Production Capacity**

**Main RUTF paste producers – current model emerging is a mix of global and national production**

Company	Production in developed countries	Production in developing countries (Franchises, Partners)
Nutriset France	France	Niger, DR Congo, Malawi, Ethiopia
Compact Norway		India (Q4-2007)
Valid Nutrition UK		Bangladesh, Ethiopia, Malawi, Zambia
Cipla India		India (2008)

**Current production capacity c. 16,000-18,000 MT**

# Production Capacity

Focus on national/regional production in up to 20 countries in Africa (plus Yemen); 10 by end-2008



Global Production



Source: WHO database based on new international reference population

**Production  
Investment**

Plan would need up to estimated **\$75 million** in start-up funding for 70 new production lines in Africa (and Yemen), based on an initial 350 MT capacity per line (c. \$3,000 per MT)

	1 line \$	70 new lines Million \$
Machinery and installation	250,000	17.6
One year operating	125,000	8.8
Ingredients	700,000	49.0
Total	1,075,000	75.4

**Note: 65% of funding relates to ensuring ingredients availability for the first 350 MT**

## A word on franchising:

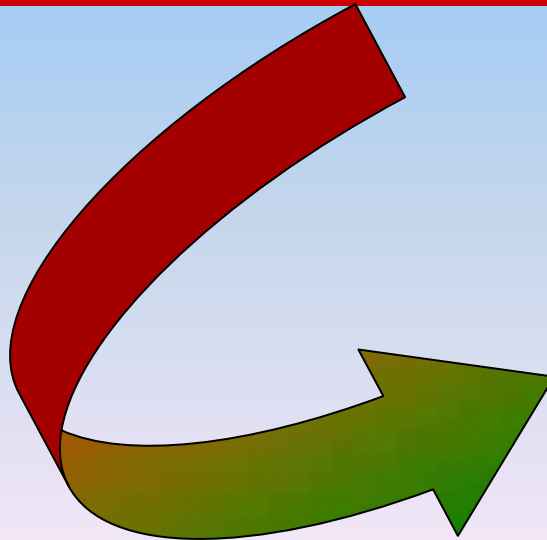
From the  
New York  
Times

### Why franchisees fail!

- Under-capitalization
- Poor management skills
- Diverging from the rules
- An unsuitable fit
- The wrong franchiser

### Remedies

- Start-up buffer funding
- Train, mentor, guide
- SOPs
- Wide search for suitable franchisees
- Involve all global producers



## Standards

- **Codex Alimentarius basic texts**
- **Recommended International Code of Hygiene practice for foods for infants and children**
- **Code of Practice for prevention and reduction of aflatoxin contamination**
- **ISO 22000: Food safety management systems**

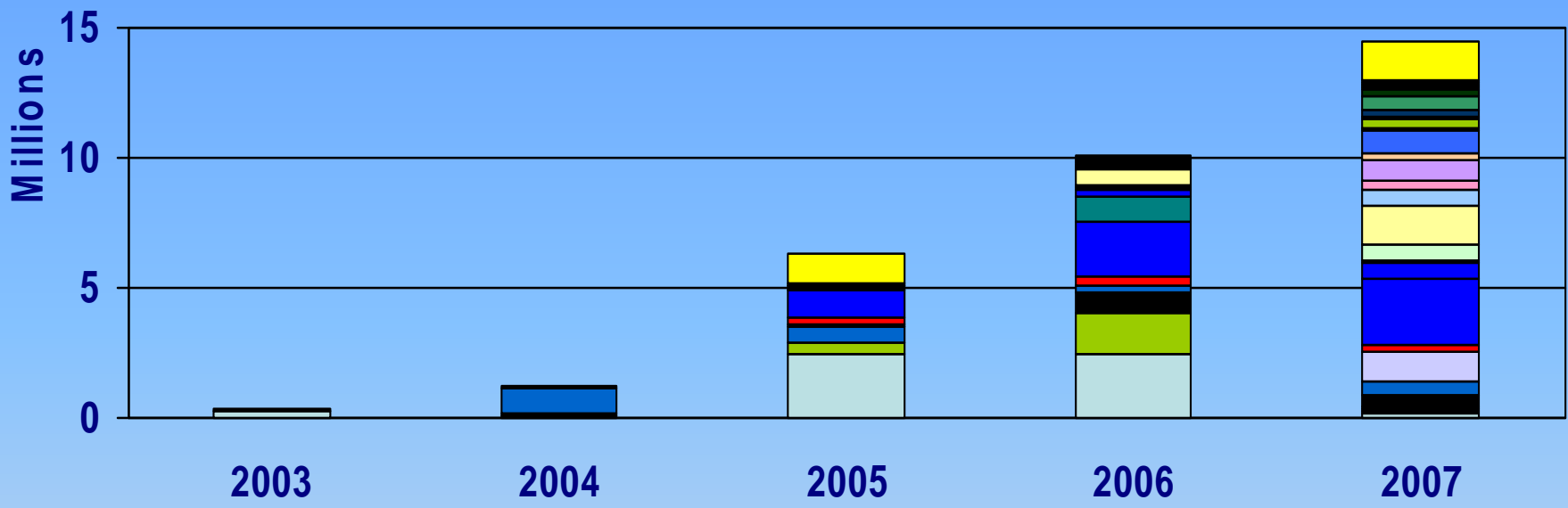
## Process

- **Manufacturing license**
- **Quality Management System**
- **Personnel**
- **Premises**
- **Equipment**
- **Documentation**
- **Production**
- **QC**

- UNICEF QC Inspector is already engaged in approving RUTF production facilities for UNICEF procurement
- MSF and UNICEF are preparing a guide of standards and an inspection protocol
- QC Evaluation Team – UNICEF, WHO, MSF, WFP, Clinton Foundation

**Product Procurement**

**UNICEF has purchased \$33 million of plumpy'nut® since 2003 for 45 countries (34 in Africa)**



- |                 |              |                        |              |                |
|-----------------|--------------|------------------------|--------------|----------------|
| ■ Ethiopia      | ■ Iraq       | ■ Afghanistan          | ■ Kenya      | ■ Liberia      |
| ■ Somalia       | ■ Sudan      | ■ Madagascar           | ■ Mozambique | ■ Haiti        |
| ■ Malawi        | ■ Senegal    | ■ Niger                | ■ Indonesia  | ■ DR Congo     |
| ■ Uganda        | ■ Zimbabwe   | ■ Pakistan             | ■ Mauritania | ■ Burkina Faso |
| ■ Eritrea       | ■ Burundi    | ■ Mali                 | ■ Benin      | ■ Chad         |
| ■ Tanzania      | ■ Djibouti   | ■ Central African Rep. | ■ Sri Lanka  | ■ Congo        |
| ■ Guinea Bissau | ■ Syria      | ■ Sierra Leone         | ■ Togo       | ■ Zambia       |
| ■ Angola        | ■ Lesotho    | ■ Cameroon             | ■ Yemen      | ■ Algeria      |
| ■ Botswana      | ■ East Timor | ■ Ghana                | ■ Jordan     | ■ Nepal        |
| ■ Non-specific  |              |                        |              |                |

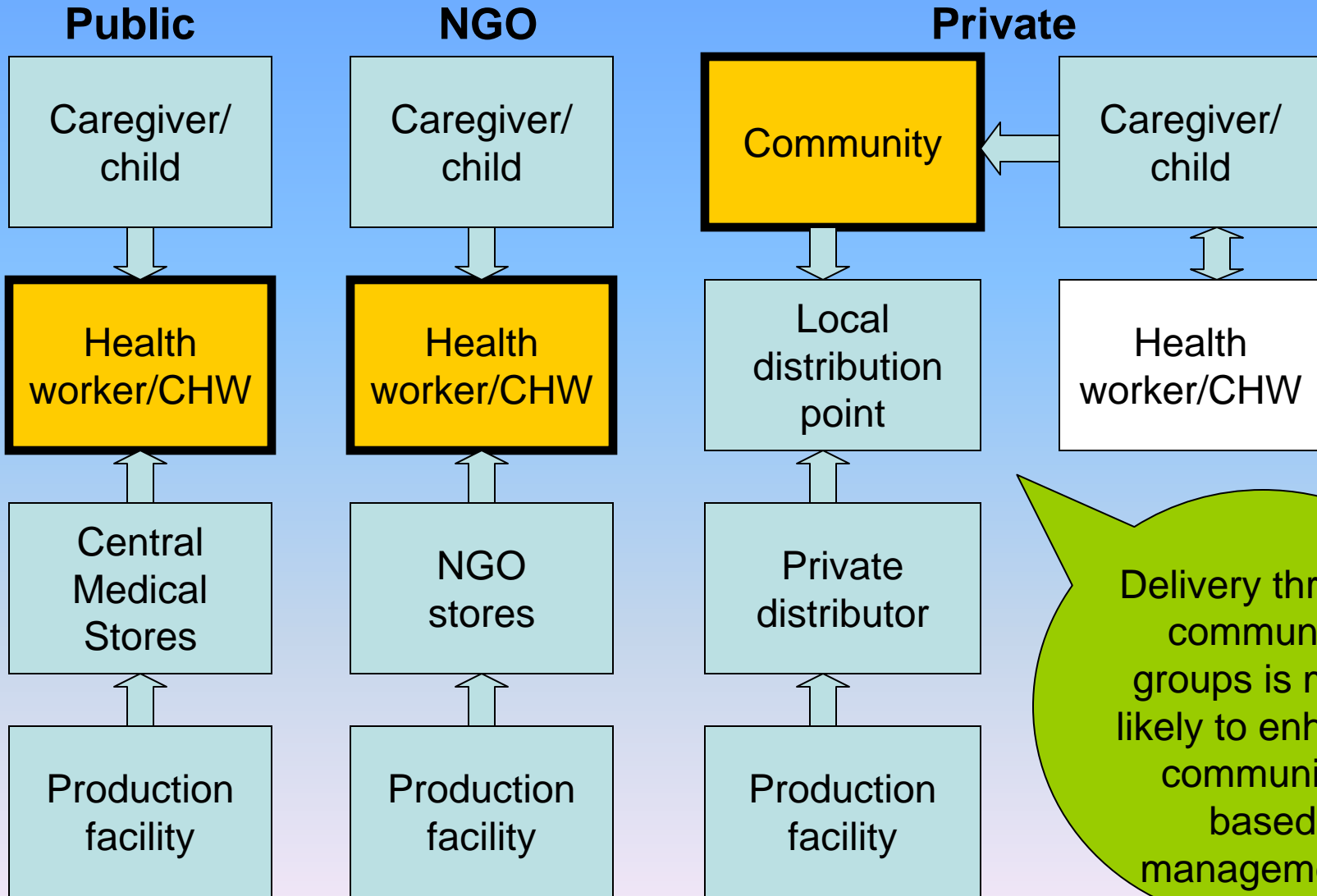
Countries in red >\$1 million (including 2007 set-aside funds)

## **Basic procurement principles**

- No donations to commercial companies
- Any capital investment considered as 'loan'
- Negotiate advance purchase commitments with 'loan' recuperation through specific agreements:
  - Specific volume
  - Discounted price
  - Grace period (if required)
  - Time framework
- Start with trial production and purchases
- Rigorous quality control including batch testing
- Ensure commercial viability of producers
- Procure from multiple sources at different prices

**Receipt,  
Storage,  
Distribution**

**A mix of alternative distribution and storage systems will be necessary in most situations, but with a possible bias towards the private sector**



 = Storage point

## Action Summary

- Scale-up of community management of severe acute malnutrition, leading to increased RUTF demand in Africa
- Promote RUTF production scale-up with a balance between global, regional and local production
- Set initial target of achieving production of between 50,000 and 80,000 MT/year by end-2011
- Scale-up production to at least 10 African countries by end-2008
- Ensure production is set up in each country in a financially-viable sustainable manner
  - Establish a sustainable business model (with private sector expertise, north and south)
  - Use existing food production companies
- Work among all partners to identify ways to bring down ingredient costs and remove import duties and sales taxes
- Investigate the role of the private sector and community groups for storing and distributing RUTF in collaboration with the health system, to enhance supply chain reach
- Expand consortium of funding organizations for RUTF

## Partners

# A broad and expanding set of partners is emerging as a RUTF Alliance

- UNICEF
- WFP
- WHO
- SCN
- USAID/PEPFAR
- Government of Japan
- National MOH, MOF
- National AIDS Commissions

- Nutriset France
- Valid Nutrition UK
- Compact Norway
- Cipla India
- Challenge Dairy Inc USA
- National food processors

- MSF
- Clinton Foundation
- Concern
- Action Against Hunger
- ICH London
- UC Davis
- Duke University
- Academy for Educational Development/FANTA

- UNITAID
- Mercury Foundation
- UNICEF National Committees
- Private investors
- Band Aid Trust
- Acumen Fund
- Private sector business-support coalition

Outcome

