

Chapter 1 -

Introduction

Targeting for Millennium Development Goal 1(a): extreme hunger

Where do the Millennium Development Goals come from?

The Millennium Development Goals were developed during the World Summit on Sustainable Development held in Johannesburg, South Africa in 2002, as the world's agreed response to poverty. 189 Heads of State committed their countries to the achievement of the MDGs by 2015. South Africa is not only a co-signatory, but also played a significant role in the development of the MDGs.

The MDGs are as follows:

- MDG1. Eradicate extreme poverty and hunger
- MDG2. Achieve universal primary education
- MDG3. Promote gender equality and empower women
- MDG4. Reduce child mortality
- MDG5. Improve maternal health
- MDG6. Combat HIV/AIDS, malaria, and other diseases
- MDG7. Ensure environmental sustainability
- MDG8. Develop a global partnership for development

MDG1 has the following further sub-goals:

- ❖ MDG1 (a): "To reduce by half the number of people living with hunger," and
- ❖ MDG1 (b): "To reduce by half the number of people living on less than \$1/day."

Water features most prominently in MDG1a (reducing hunger) and MDG7 (aimed at water supply and sanitation for all), but it is also an important ingredient to the achievement of many of the other MDGs. For instance, the achievement of universal primary education requires learners to be well-fed, which in turn depends on water. Improved health, as targeted by MDG4, 5 and 6, also requires access to water for its achievement.

By signing the Millennium Development Goal Declaration, our country's leaders have committed government and citizens – all of us – to work together to achieve the MDGs. The Department of Water Affairs and Forestry had to review critically how it could contribute to this process. The DWAF Rainwater Harvesting Programme is part of DWAF's response to MDG1 (a) specifically.

Do we really have a problem with achieving MDG1(a) in South Africa?

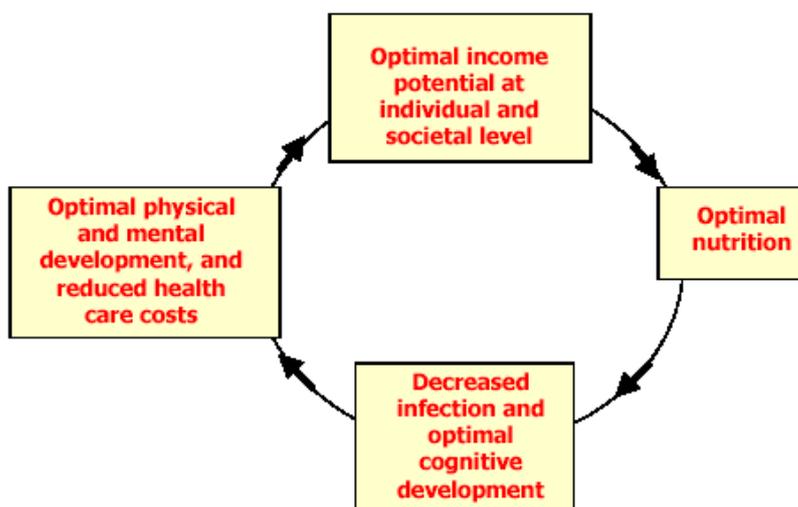
One quarter of South African children suffer from stunting (UN, 2006), i.e. permanent physical and mental damage/underdevelopment, before they reach the age of five. In our case the main problem is usually not so much lack of energy foods (carbohydrate staples like maize porridge), but lack of micro-nutrients (needed daily from fresh vegetables and fruit) and complex proteins (apart from meat, this is also available in high protein crops like peanuts, certain types of beans and peas, etc).

Does child nutrition really matter?

Why is child nutrition and child well-being so important to us as a nation? Three reasons stand out:

- ❖ Firstly, it is well accepted that “nutritional status is the best global indicator of well-being in children.” (De Onis, et al. 2000)
- ❖ Secondly, where children eat well, it is mostly a good indicator that the whole family has sufficient access to food. This is important, because half of South Africa’s people live on R20 a day and 1.3 million rural households are unable to meet their daily food needs (BusinessReport, 13 July 2006). South Africa has committed herself to the Millennium Development Goals, which among other things, call on countries to “halve the number of people living with hunger by 2015.”
- ❖ Thirdly, good nutrition can help to break a vicious inter-generational cycle in the poor household: **malnourished children have a low life-long earning capacity, and therefore are more likely, themselves, to have malnourished children, again with low life-long earning capacity...** and so on and on (after Zere and McIntyre, 2003). Instead, the DWAF RWH Programme targets MDG1a, by trying to help the poor household to break into the ‘virtuous nutrition cycle’ shown below:

Figure 1.1: The virtuous cycle of improved nutrition and economic well-being (from Chopra, 2004)



The problem in South Africa

Households can get access to food either by purchasing it or producing it themselves. The social support systems have already improved many households' access to cash, but with 1.3 million households still unable to meet their daily food needs, clearly more needs to be done.

It is accepted that own production at home is a very direct strategy to improve child nutrition. However, poor households in SA always offer 'lack of water' as the main reason why they don't grow food gardens at home.

How can water help to achieve MDG1(a)?

The National Water Act 1998 is intended to protect, use, develop conserve, manage and control water resources in an equitable and sustainable manner. In order to achieve some of these objectives, under Section 61 and 62 of the Act, the Minister of Water Affairs and Forestry may give financial assistance in the form of grants, loans and subsidies.

The Minister of Water Affairs and Forestry has approved a subsidy scheme to provide financial assistance in the form of a grant, which can be paid to a Water User Association (WUA) or other Approved Legal Entity (also called Registered Implementing Agents or RIAs), for the **capital cost towards the construction of storage tanks for rain-water and related rain-water harvesting works for poor households in rural areas and villages, for the purpose of family food production and other household economic activities.**

The objective of the DWAF RWH subsidy scheme is to **provides access to water** to the household to **enable poor households to grow fresh food at home, year-round, to create a constant supply of micro-nutrients at home to prevent stunting in infants and toddlers before they reach school-going age** (and thus in the years before they can start benefiting from school nutrition programmes).

What is the DWAF RWH Program?

The **DWAF RWH Program** targets

"Millennium Development Goal 1a: extreme hunger", by:

- **First introducing intensive home food production (or any other home-based productive water uses) through methods of channeling and using rainfall run-off.**
- **Then, once a household has shown commitment by successfully implementing their production system at home, they qualify for a 30 000 litre underground rainwater storage tank, and a manual water pump, which improves their water security and enables them to expand to about 100-200m² intensive production in the backyard (i.e. about 1-2% of a hectare).**

To develop the programme, pilot projects were carried out by five different RIAs, with the purpose of putting procedures in place based on the lessons learnt.

Does it work?

The "War on Hunger" paper (see [Appendix A](#)) reports on the excitement of and impact on rural households who participated in the DWAF RWH Demonstration phase in 2006. Households have reported that they had been able to produce much more intensively, i.e. they are getting higher yields. Further, they are now able to also produce food in the dry season, thereby providing them with fresh food throughout the year, which was impossible before. To quote from some of the participating households describing the value of the programme to them:

- ❖ "the confidence that from now on we can have food all the time";
- ❖ "being able to produce the whole year, instead of only in summer";
- ❖ "the pride and joy of eating from one's own handywork"; and "the amazement that we are gaining so much more from our efforts using these intensive production approaches";
- ❖ "the ability to produce without cash, because we use rubbish, natural remedies and make our own seedlings";
- ❖ "being able to gain, while we are caring for the environment by cleaning away rubbish and using it for production";
- ❖ "improved harmony and togetherness in our family."

Improved food security and reduced child stunting has economic and social value to households – and the nation.

The War on Hunger paper also offers an analysis of the costs of this once-off government investment in 'asset-building for the poor', and the measured value of production achieved by participating households. It shows that the government investment is offset within five years through the value of production achieved by the food insecure household. Over a twenty year period, a direct Internal Rate of Return (IRR) of 15% on this government investment can be achieved by a poor household.