

# CTA Policy Brief

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## The water we eat – tackling scarcity in ACP countries

**T**he rate at which we consume water has grown twice as fast as the world population over the past century, with many countries now suffering from water scarcity. Approximately 90% of the water gathered through irrigation and rainfall is used to produce food. To keep pace with population growth and dietary changes, the amount of water used by agriculture will have to double by 2050 – unless we change our patterns of production and consumption.

**At the Brussels Development Briefing on *The Water We Eat*<sup>1</sup>, experts highlighted the measures required if future generations are to make sustainable use of the world's finite supply of water.** Policy-makers worldwide should pay greater attention to the agricultural use of water. ACP countries should introduce initiatives to help farmers improve their productivity per unit of water consumed. There should be a strong emphasis on small-scale, low-cost methods of improving rain-fed farming. Steps should be taken to improve access to water, especially for women and the rural poor in ACP countries. There is an urgent need for better water governance, both within and between countries.

### FACING UP TO THE WATER CRISIS

Approximately 1.2 billion people – 17% of the world's population – live in regions where water use has reached or exceeded sustainable limits. Even greater numbers, 1.6 billion people, suffer from economic scarcity: they lack access to adequate supplies of water. Economic water scarcity is the reality for a significant proportion of farming families

in ACP countries, and one of the factors responsible for low productivity and widespread poverty.

It is not just the increase in population that is fuelling the rising demand for water. Changing dietary patterns and growing affluence in the developing world are closely associated with an increase in meat consumption. A diet high in grain-fed meat requires approximately 5000 litres of water per day, compared to 2500 litres for a vegetarian diet.

### POLICY POINTERS

➔ Give priority to increasing productivity in areas used for rain-fed agriculture, where a little more water could go a long way

➔ Implement a cross-sectoral approach and promote the involvement of farmers' groups and other users to improve water governance

➔ Encourage investment in institutions and infrastructure that improve access to water in environmentally sensitive ways

➔ Raise public awareness about water use and scarcity



<sup>1</sup> Organised by CTA, the European Commission (DG DEVCO), the Secretariat of the African, Caribbean and Pacific (ACP) Group of States, the International Water Management Institute (IWMI) and Concord, the European NGO Confederation for Relief and Development. Brussels, April 2011. <http://brusselsbriefings.net>

# 4%

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Other factors affecting water availability and demand include climate change and urbanisation.

Four-fifths of nations are net importers of food. This means they are also net importers of 'virtual water'. This describes the water which is used to grow crops and rear livestock in the countries of origin. Trade has therefore enabled countries which lack sufficient water to become food-secure by importing food from elsewhere. This is the good news. However, there is a downside to this trade: subsidised crops grown and exported by European and US farmers depress world market prices, making life more difficult for ACP farmers.

Massive public investment in irrigation during the latter half of the 20th century, especially in Asia, did much to raise crop yields and tackle hunger. Globally, almost a

fifth of cultivated land is now under irrigation, producing 40% of our food. However, there was relatively little investment during this period in water-related schemes in sub-Saharan Africa, where just 4% of cultivated land is under irrigation, compared to 50% in India.

## POLICIES FOR A WATER-WISE WORLD

### Facing Reality

Water is grossly undervalued. In the developed world, a cubic metre of high-quality drinking water is often worth no more than the price of a cigarette, and in many countries farmers consider it a free resource. More could be done to publicise the true costs of food production by using the concepts of virtual water and water footprints to draw attention to its agricultural use. The facts are frequently startling. It requires 140 litres of water to make a cup of coffee; 1000 litres to produce a litre of milk; and 2700 litres to manufacture a cotton T-shirt.

In ACP countries, the agricultural use of water receives too little attention, considering its importance for rural communities. This has to change. Policymakers should recognise that better management of inputs, and especially improved water management, could significantly increase crop and livestock productivity.

### Targeting low-yield farmers

According to the report by IWMI on the Comprehensive Assessment of Water Management in Agriculture, 75% of the additional food we need over the next decades could be met by increasing the production of the world's low-yield farmers to 80% of the levels high-yield farmers currently achieve on similar land.

In sub-Saharan Africa, policymakers should focus their attention on improving





productivity in areas devoted to rain-fed agriculture. By introducing good agricultural practices, restoring degraded soils and encouraging a range of water and land management solutions, grain yields could be dramatically increased without using much additional water. Water harvesting or pumps can provide water during critical dry-spell periods, reducing risks of crop devastation. When risks are diminished, farmers willingly invest in better agricultural practices. This leads to more food being grown per unit of land and water.

Small-scale irrigation schemes, financed by farmers, go largely unrecorded by governments and donors, yet these spontaneous

and unregulated initiatives are playing an increasingly important role in sub-Saharan Africa, helping families to boost incomes by growing cash crops during the dry season.

Policymakers and donors should support these relatively inexpensive ventures, while allowing farmers to determine which systems – buckets, watering cans, electric pumps, small dams – they adopt. Water storage by small reservoirs, in groundwater, in soils or wetlands is essential to reduce the risks associated with short-term dry spells. Water scarcity may be a global issue, but the solutions must be determined locally, with farmers helping to shape policy.

### **Improving access for women and the rural poor**

In some water-scarce regions farmers consider access to water to be more critical than access to primary health care and education. Limited access to reliable, safe and affordable water is preventing millions of families from escaping poverty. It is essential that policymakers in ACP countries guarantee fair access to water, and acknowledge the historic rights of use of rural people.

Women frequently find themselves at a disadvantage when it comes to obtaining scarce water resources. Leaving aside issues of equity, there are compelling reasons why women should have equal access to water: in many countries, they perform the bulk of agricultural activities. National and local governments should make a concerted effort to ensure that women benefit from the same water rights as men, whether these are collective or individual rights.

### **It's about more than water**

Many ACP countries need to reform the way they oversee the use of water. This may involve more decentralised decision-making, with the participation of farming communities and other user groups; the assignment of secure user rights; and a greater reliance

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on market mechanisms to ensure the most cost-effective allocation and management of scarce water resources. Governments should recognise that this is a cross-sectoral issue, with many ministries having an interest in the way water is used.

Well-informed negotiations are essential if competing demands for water are to be met. Civil society can play a key role by ensuring that those groups without secure title, such as smallholder farmers, develop a strong collective voice.

There are a number of important transboundary issues which require the attention of policymakers. Most obviously, countries which share major watersheds must reconcile their own water demands, which are invariably increasing, with those of their neighbours. Regional protocols already exist for many transboundary rivers, and these will play an increasingly important role in minimising the adverse impacts of major developments and the potential for conflict.

## BETTER WATER STEWARDSHIP

The policies described above could pave the way for more efficient and productive use of scarce water resources. Creating greater awareness about the ways we use and abuse water will help to inform the choices made by governments, the private sector, farmers and consumers.

In ACP countries, support for small-scale, low-cost water storage and irrigation schemes will significantly increase crop yields and deliver more food per unit of water. Policies which guarantee fair access to water for rural dwellers, especially for women, will enable farming families to grow more food, and improve their diets and incomes. To avoid the environmental damage frequently associated with irrigated farming in Asia and the developed world, good water stewardship should be at the heart of new irrigation initiatives in ACP countries. ■

## Further reading

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