Water Scarcity : Why are we here today?

Who am I ?

Professor Robert M. Kalin CEnv FICE FRSC FGS

Professor of Environmental Engineering for Sustainability

Water Scarcity

Range of Exciting Speakers

Various Different Viewpoints

Science and Technology, Policy, Economics

Opportunities and Challenges

Challenge Number 1

What can Scotland Realistically Do?

IMPACT

What can Scotland Realistically Do?

1 in 1,338

Population of World at 6:00 22nd May 2012

7,042,227,156

Population of Scotland at 6:00 22nd May 2012

5,264,770

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What can Scotland Realistically Do?

1 in 1,338

How can / Where does Scotland

‘Stand Out’ in a Crowd ?

What is the Scale of Global Water Issues ?

Water for Life, Sanitation for Health & Dignity

Water & Sanitation Facts

Kills more than 4,100 children every day

Half the developing world suffering from diseases due to poor water and sanitation

Half the hospital beds in the world filled with people suffering water related diseases

Source: DFID

Water & Sanitation Facts

Access to drinking water through household connection in rural areas is as low as 5% in sub-Saharan Africa

Does it need to be?

884 million people – about half of whom live in Asia – still use an unimproved drinking water source

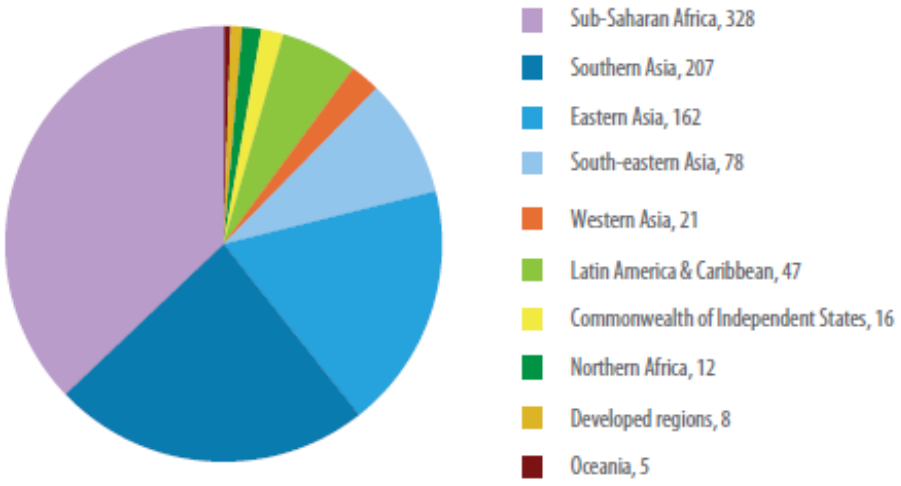


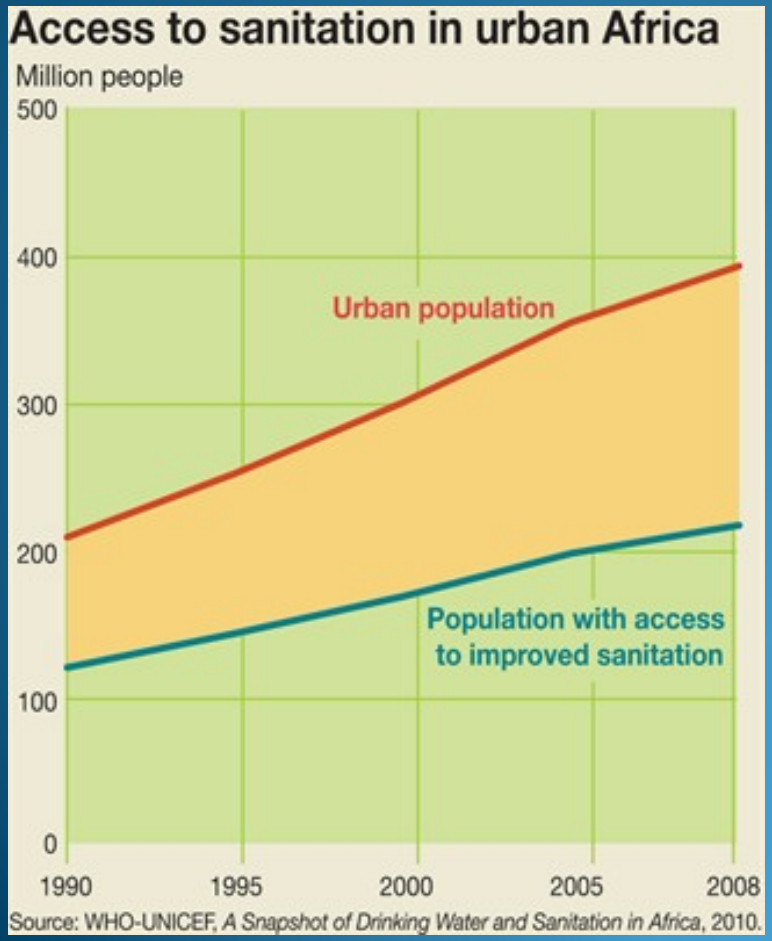
Figure 32 Population using an unimproved drinking water source, by region in 2006 (millions)

Source: DFID

Water & Sanitation Facts

over 2.5 billion remain without improved sanitation.

1.8 billion of them live in Asia



lowest coverage is sub-Saharan Africa

Only 31% use improved sanitation

Source: DFID

MDG 7

Target 10: By 2015, halve the proportion of people without sustainable access to safe drinking water and basic sanitation.

Progress

World on track to meet the drinking water target (locally major gaps exist)

But we will miss the MDG sanitation target by over 700 million people.

And Africa is off-track to meet both the drinking water and sanitation targets

Source: DFID

Access to Water

Source: DFID

More than 90% of the global population will use improved drinking water sources by 2015.

87% of the global population in 2006 used an improved source of drinking water, up from 77% in 1990 – 1.6 billion people gained access, 884 million still lack access

Over 50% of the world's population has access to piped water at their home

Accelerated progress needed in sub-Saharan Africa, home to more than a third of those using unimproved drinking water sources.

Access to Sanitation

Between 1990 and 2006, proportion with improved sanitation increased by 12% - 1.1 billion gained access

But: 2.4 billion lack access to a basic toilet - 1.2 billion practice open defecation

At least 173 million people per year need to begin using improved sanitation facilities to meet the MDG.

Most countries that are not on track are in sub-Saharan Africa and Southern Asia -1.8 billion in Asia alone!

Source: DFID

A Cost Effective Investment

- Returns of between £1.50 and £17 from 50 pence invested in water and sanitation
- Achieving MDG targets will cost £5 billion annually, but will deliver benefits of around £42 billion
- Hitting the targets will also save many lives

Source: DFID

Water Scarcity : Long-Term Economic Growth for all and Climate Justice

What can Scotland Realistically Do?

Water Rich Environmental Entrepreneurism

Opportunity for Win - Win