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## CREATION TIME 2013

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### ADDITIONAL INFORMATION RELATED TO WATER USE AND SHARING

To support the 'Starters for Sunday' support material for worship leaders during Creation Time 2013 Eco Congregation Scotland offer additional information resources in the following areas

1. 'Did you know' fact sheet on global water resources
2. Links to water scarcity maps
3. Information on water conflict from four areas of the world
4. Information on some church responses to water issues, both in Scotland and the wider world
5. Information on the United Nations Year of Water Co-operation 2013
6. Links to relevant organisations and resources
7. List of some relevant reading

**Did you know...?**

***According to Water Aid UK:***

1. 2.5 billion people in the world do not have access to adequate sanitation, almost two fifths of the world's population.  
(*WHO/UNICEF Joint Monitoring Programme (JMP) Report 2012 update*)
2. 783 million people in the world do not have access to safe water. This is roughly one in ten of the world's population.  
(*WHO/UNICEF Joint Monitoring Programme (JMP) Report 2012 update*)
3. Around 700,000 children die every year from diarrhoea caused by unsafe water and poor sanitation - that's almost 2,000 children a day.  
(*Child Health Epidemiology Reference Group, 2012 and Unicef Child Mortality Report, 2012*)
4. At any given time, nearly half the people in the developing world are suffering from one or more of the main diseases associated with dirty water and inadequate sanitation such as diarrhoea, guinea worm, trachoma and schistosomiasis.  
(*UNDP: Human Development Report, 2006*  
<http://hdr.undp.org/en/media/HDR06-complete.pdf> page 45)
5. Developing countries need to spend up to US\$58 billion more each year to meet the Millennium Development Goal targets on water and sanitation.  
(*WHO 2008, Gleick P H et al, 2009*)
6. Diarrhoea is the third biggest killer of children under five years old in Sub-Saharan Africa.  
(*Child Health Epidemiology Reference Group (CHERG) 2012*)
7. Diarrhoea kills more children every year than AIDS, malaria and measles combined.  
(*Child Health Epidemiology Reference Group (CHERG) 2012*)
8. Every year, around 60 million children are born into homes without access to sanitation.  
(*UNICEF, 2006*  
[http://www.unicef.org/publications/files/Progress\\_for\\_Children\\_No.\\_5\\_-\\_English.pdf](http://www.unicef.org/publications/files/Progress_for_Children_No._5_-_English.pdf) page 3)
9. For every \$1 invested in water and sanitation, an average of \$4 is returned in increased productivity.  
(*Hutton, Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage, WHO, Geneva, 2012: page 4*)
10. Funding for water and sanitation infrastructure is lacking by US\$115 million a year in Sub-Saharan countries.  
(*Africa Infrastructure Country Diagnostic (AICD) Study*)
11. Source: Water Aid UK: [www.wateraid.org/uk/what-we-do/the-crisis/statistics?qclid=CPflmPmQibcCFVMbtAodlz4AJA](http://www.wateraid.org/uk/what-we-do/the-crisis/statistics?qclid=CPflmPmQibcCFVMbtAodlz4AJA)

## 2. WATER SCARCITY MAPS

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Some examples of maps showing areas of water scarcity

<http://newswatch.nationalgeographic.com/2012/03/14/are-we-running-out-of-water/water-scarcity-ng/>

<http://blogs.worldwatch.org/the-looming-threat-of-water-scarcity/>

<http://news.bbc.co.uk/1/hi/sci/tech/5269296.stm>

## 3. WATER CONFLICTS: SNAPSHOTS AROUND THE WORLD

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### IN AMERICA...

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In 2012 Mexico and the US agreed new rules on sharing and managing water from the Colorado River, which serves some 30 million people in the two nations. Under the deal, the US will send less water to Mexico during a drought, while Mexico will be able to store water north of the border during wet years. The Colorado River flows 1,450 miles (2,230km) from the Rockies into the Gulf of California. Recent droughts and increased water usage have put pressure on the river.

<http://www.bbc.co.uk/news/world-latin-america-20422899>

### IN AFRICA...

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In South Africa there has been conflict over increasing demands made upon limited water resources. South Africa needs to generate more electricity to meet growing demand but its reliance on coal fired power stations is adding to other water demands. According to the environment group WWF South Africa:

‘The Olifants river catchment is known to be one of South Africa’s most degraded rivers because of impacts primarily from coal mines, compounded with impacts from agriculture, industry and sewage pollution. Our water resources are under threat and stressed. Acid Mine Drainage is one of the most hazardous threats facing our water resources. Acid Mine Drainage from both coal and gold mining has already brought devastating consequences to impacted areas, such as the Witwatersrand and the Witbank.’

[http://awsassets.wwf.org.za/downloads/coal\\_and\\_water\\_report\\_mediabackgrounder\\_final.pdf](http://awsassets.wwf.org.za/downloads/coal_and_water_report_mediabackgrounder_final.pdf)

## IN SOUTH ASIA...

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Time Magazine reported in 2012:

“The waters of the Indus River and tributaries like the Jhelum — and the dams built on them by India — have long been one of the main points of contention between the rival neighbors, along with the disputed region of Kashmir itself and cross-border terrorism. Pakistan, whose agriculture-dominated economy is heavily reliant on the Indus and its tributaries, fears upstream dams allow India to manipulate the flows of water as it sees fit. Many in Pakistan accuse New Delhi of wantonly exacerbating the country's dire water shortages, choking its agricultural production and ruining livelihoods. India dismisses these accusations as paranoid and without scientific backing. Its dams are run-of-the-river, it says, aimed at generating hydroelectricity, or in the case of the Tulbul navigation project on the Jhelum, meeting other development needs like facilitating year-round trade.”

Read more:

<http://www.time.com/time/world/article/0,8599,2111601,00.html#ixzz2SnuCcSTn>

## IN THE MIDDLE EAST...

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The United Nations Development Programme reported in 2006:

“Nowhere are the problems of water governance as starkly demonstrated as in the Occupied Palestinian Territories. Palestinians experience one of the highest levels of water scarcity in the world. Physical availability and political governance of shared water both contribute to scarcity.

The unequal distribution of water from aquifers shared with Israel, a reflection of asymmetric power relations in water management, is part of the problem. With rapid population growth declining water availability is a tightening constraint on agriculture and human use.

In the West Bank Israeli settlers use far more water per capita than Palestinians and more than Israelis in Israel: nearly nine times as much water per person as Palestinians.

Israeli representatives on the Joint Water Committee stringently regulate the quantity and depth of wells operated by Palestinians. Less stringent rules are applied to Israeli settlers, enabling them to sink deeper wells.

Perhaps more than in any other setting, water security in relations between Israel and the Occupied Palestinian Territories is bound up in wider problems of conflict and perceptions of national security.”

From: Human Development Report 2006, United Nations Development Programme (UNDP) Beyond scarcity: Power, poverty and the global water crisis, pp. 216-217.

<http://hdr.undp.org/en/media/HDR06-complete.pdf>

A more recent update in *The Guardian* in 2013 confirmed that this picture remains accurate. See: <http://www.guardian.co.uk/world/on-the-middle-east/2013/feb/04/israel-palestinians-water-arafat-abbas>

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#### 4. WATER AND THE CHURCHES

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### **Flooding in Bangladesh and some church responses**

Most of Bangladesh is flat and low-lying river delta country. The Ganges and the Brahmaputra, two of Asia's greatest rivers, join north of the capital Dhaka and flow out to sea in the world's largest estuarine delta. Two other great rivers – the Jamuna and the Meghna – also flow through the country meaning that Bangladesh receives enormous amounts of water from four major rivers. From spring, these fill up with melting snows from the Himalayas.

Flooding is part of the annual cycle, in some years it is worse than others. Coupled with this the country is also battered by cyclones – the most devastating of these in recent times was cyclone *Sidr* in 2007 which destroyed thousands of homes, claimed the lives of up to 10,000 people and brought an increase in water related diseases.

A Church of Scotland Mission Partner reported, “in Barisal and Gopalganj areas there is extensive damage to many houses and other buildings due to fallen trees, as well as crop damage. There is an urgent need for shelter for the many families who have lost either the roof on their house or have had their house destroyed by falling trees. Four Church schools in the area have also been damaged.”

### **Problems associated with flooding:**

The great problem Dhaka faces comes from the failure of the sewage system. In many areas of the city, sewage is pumped directly in to the floodwaters. The waters which fill people's homes, and in which children are swimming, are black and putrid. These same floodwaters are seeping into water supplies and the greatest danger is of all is an epidemic that kills vast numbers of people suffering from dysentery.

### **Church response**

The Church of Bangladesh Social Development Programme has staff with training and experience and a good network to implement relief and rehabilitation activities, supplying food, clean water, emergency sheeting and medicines.

It is also helping churches meet the challenge of climate change. Twenty-five congregations are providing 'animators' to set up disaster management committees at village level. Planned activities include canal re-excavation, raising of house plinths, trialling of solar panels and promotion of saline-resistant crops and hanging gardens.

*Using information from the Church of Scotland and Tearfund*

### **Water, food and play in Malawi**

Mbame Church in Blantyre, Malawi is home to a water project which is not only helping children learn about growing food while they have fun, it's also benefitting the local community.

A roundabout linked to a pump draws water from an underground borehole. The water is then pumped into a tank and from there into a village tap.

A vegetable garden in the church's grounds is watered, helping young people learn about growing food, providing food, and allowing a source of income for the community to sell what they do not eat.

This play-pump powered by a children's roundabout provides a clean, safe drinking source (thus reducing the number of water-borne diseases) as well as helping provide a healthy and nutritious diet. In a country where there is not always enough food for people to eat, this is making a huge difference.

*This project is currently supported by the Boys' Brigade World Mission fund*

<http://www.playpumps.co.za/>

### **And closer to hand** – examples of recent practical activities and projects in Scottish churches

The Brownies carried out the following tasks: For a week try three different ways to use less water and energy at home. Keep a record of what you've done and how much less water and energy you have used.

Sustainable development has been explored in the context of work in supporting water collection activities for people who live in a severely deprived area of Ngong, Kenya.

An Eco service on the theme of 'Living Water', led by the Minister and members of the church's Eco Group

Supporting the annual *Water Aid* appeal.

Sharing a link with a school in Zambia to raise the amount of water available to them up to the levels recommended by the WHO

***United Nations Year of Water Co-operation***



In December 2010, the United Nations General Assembly declared 2013 as the United Nations International Year of Water Cooperation

The objective of this International Year is to raise awareness both about water co-operation, and about the challenges facing water management in light of increasing global demand.

The Year highlights the history of water cooperation. This includes a wide range of issues including:

- water education
- water diplomacy
- transboundary water management
- financing cooperation
- national/international legal frameworks
- Millennium Development Goals

Celebrations throughout the Year will include featured events at UNESCO Headquarters in Paris, as well as many other events organized by various stakeholders around the world. Such events will seek to promote actions at all levels in relevant areas including education, culture, gender, the sciences, conflict prevention and resolution, as well as ethics, among others.

To know more about the 2013 UN International Year of Water Cooperation go to:  
[www.unwater.org/watercooperation2013.html](http://www.unwater.org/watercooperation2013.html)

## 6. LINKS TO RELEVANT ORGANISATIONS AND OTHER RESOURCES

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CTBI worship resources for Creation Time 2013 <http://www.ctbi.org.uk/653>

Eco Congregation Scotland <http://www.ecocongregationscotland.org/>

Eco Congregation Ireland <http://ecocongregationireland.com/>

A Rocha <http://www.arochoa.org/gb-en/index.html>

Adaptation Scotland - including video on 'Scotland's Climate Story' with several examples of dealing with water issues from a Scottish perspective

<http://www.adaptationscotland.org.uk/2/126/0/Scotlands-climate-story.aspx>

ARC (Association of Religions and Conservation) – including information on education and water and a resource, 'Faith in Water'

<http://www.arcworld.org/projects.asp?projectID=524>

Christian Aid - examples of work relating to water issues

<http://www.christianaid.org.uk/search.aspx?q=water>

Ecumenical Water Network [water.oikoumene.org/en/](http://water.oikoumene.org/en/)

Playpumps <http://www.playpumps.co.za/>

United Nations <http://www.unwater.org>

WaterAid <http://www.wateraid.org/uk>

WaterFootprint Network [www.waterfootprint.org](http://www.waterfootprint.org)



## 7. SOME SUGGESTED READING

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Maggie Black and Janet King

**Atlas of Water: Mapping the World's Most Critical Resource.** 2<sup>nd</sup> edition.  
Routledge, 2009.

Maggi Black

**The No-nonsense Guide to Water.** Verso Books, 2004.

Alexander Bell

**Peak Water: Civilisation and the world's water crisis.** Luath Press, 2009.

Fred Pearce

**When The Rivers Run Dry: What Happens When Our Water Runs Out?**

Eden Project Books, 2007.

Susan George

**Whose Crisis, whose Future?** Polity Press, 2010.

David L Feldman

**Water.** Polity Press, 2012.

Paul Younger

**Water: all that matters.** Hodder Education, 2012.

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REGISTERED IN SCOTLAND: SC372366.

ADDRESS: 121 GEORGE STREET, EDINBURGH, EH2 4YN.

[WWW.ECOCONGREGATIONSCOTLAND.ORG](http://WWW.ECOCONGREGATIONSCOTLAND.ORG)

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