

The Water Crisis in Gaza

Step into the life of a Palestinian

Colwyn Bay, 12th November 2016

By Magdi Akeel (Interpal Manchester)

**In the name of God, the most gracious,
the most merciful**

**“And we have made from water every
living thing. Will they not then believe?”
(The Holy Quran: Surah 21: Verse 20)**

- **The prophet Muhammad peace be upon him said:
“People must share these three things: Water, Grasses (for animals) and Fire (energy).”**

**The United Nations has
declared:**

**“Safe and clean drinking
water and sanitation is a
human right essential to the
full enjoyment of life.”
(Resolution 64/292)**



GAZA STRIP

-  Built-up area
-  Refugee Camp
-  Crossing Point

Kilometers
0 1 2 3 4

MEDITERRANEAN
SEA

ISRAEL

Beit Lathia
Jabalia
Gaza
Beit Hanoun
Nahal Oz
Gaza
Deir al-Balah
Khan Yunis
Abasan al-Kabira
Rafah
Yasser Arafat International Airport
Gaza
UNRWA
Rafah
Kerem Shalom



Facts

- **Area of Palestine is 27000 km².**
- **Area of Gaza Strip is 360 km².**
- **Population of Gaza Strip is 2 million.**
- **The Israeli blockade of Gaza has been going on since June 2006.**
- **There is no surface running of water in Gaza.**
- **The only source of water is rain and groundwater.**
- **About 95% of the groundwater is extremely polluted and deemed unfit for human consumption**

Mechanism of Water Usage

- The majority of soil in Gaza is **sand**, which allows rain water to penetrate below and accumulate on **rock surface**.
- Palestinians dig wells and pump water for human consumption and agriculture.
- There are no sewage plant treatments (except in Gaza City) in the majority of the Gaza Strip.
- All the residents have their own hole for collection of sewage which filters into the groundwater.

Water crisis in Gaza

- **Quantitative Problem**
- **The Palestinian consumption of water is 30-50 litres per person per day.**
- **The Israeli consumption of water is 200-250 litres of water per person per day.**
- **Israel is over pumping groundwater from the lands around Gaza which leads to the deficiency of groundwater levels in Gaza.**
- **Salty water from the Mediterranean Sea replaces the pumped water underground.**

- **1 cubic** metre of sea water can pollute **70 cubic** metres of groundwater.
- Gaza now consumes **170,000,000** cubic metres per year.
- In 2020, Gaza will need up to **300,000,000** cubic metres.
- **Where will this water come from?**

Qualitative

- About 95% of the water in Gaza is polluted.
- Water can be polluted chemically or biologically.

Chemical Pollution

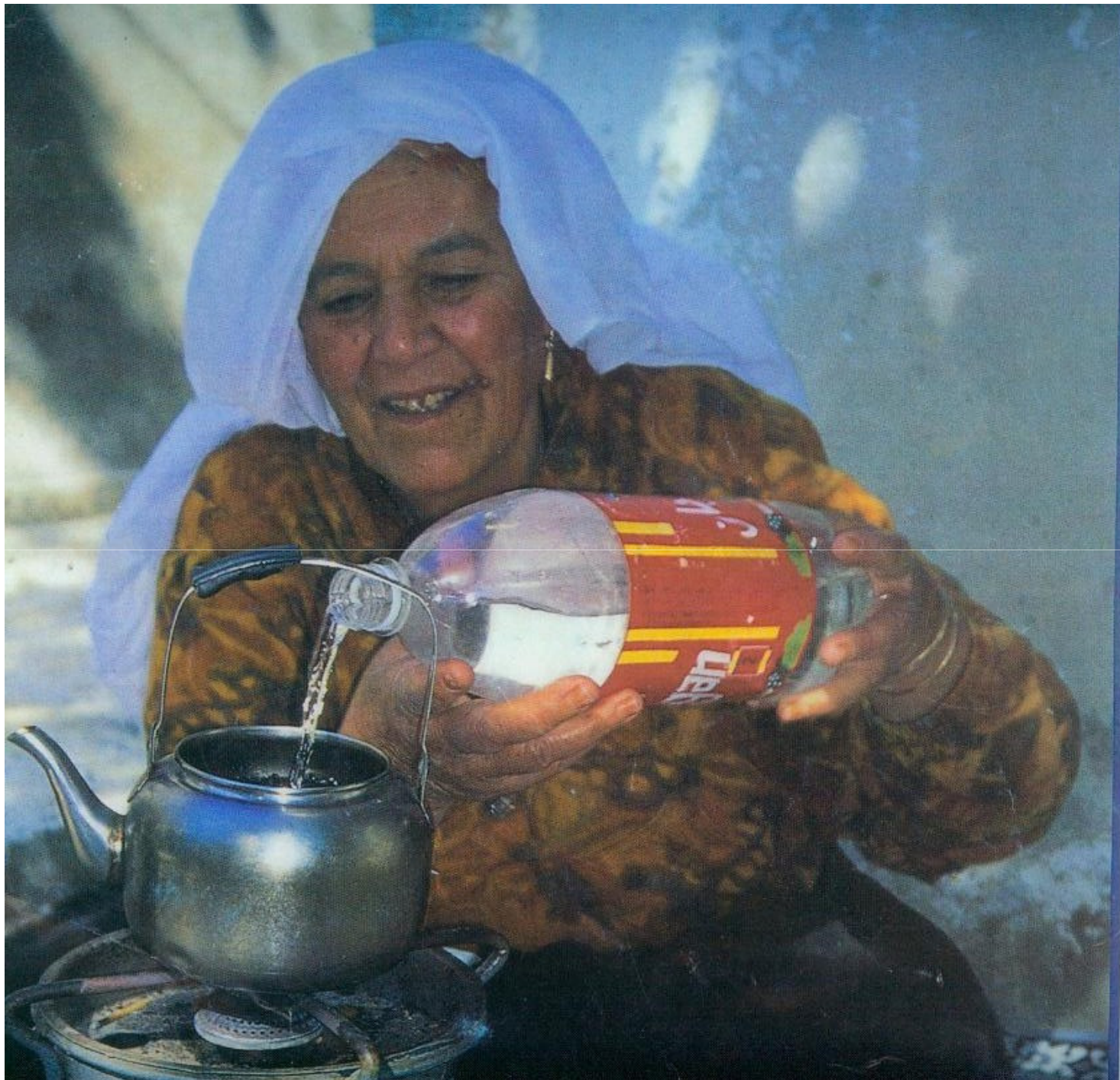
- Groundwater in Gaza contains high levels of many toxic chemicals like:
- **Chlorides** (500mg/litre). The recommended is less than 250mg/l.
- **Nitrates**. (240-400mg/l) The recommended is less than 50mg/l.
- **Fluoride**.
- **Chloroform**.
- **Phosphates**.
- **Toxic trace elements**.

Sources of Chemical Pollution

- **The consumption of groundwater is higher than the quantity of rain in Gaza.**
- **There is an over-usage of chemical fertilisers in agriculture.**
- **There is a lack of efficient treatment for the sewage in Gaza.**

Biological Pollution

- The main pollution of groundwater in Gaza is from the bacteria which comes from untreated sewage water.
- The operational capacity of waste water treatment facilities are able to treat **32000 cubic** metres of waste water per day. It receives at least **65000 cubic** metres per day.
- The most common bacterium in water in Gaza is **Escherichia Coli** which causes diarrhoea.



- **Palestinians in Gaza buy from the Israeli water company Mekrot 3.8 million cubic meters of water at 3.00 NIS (New Israeli Shekel) which is about 50p per cubic meter.**
- **Why should the Palestinians have to pay for a natural resource that should already be available for them?**

- **20% of Gaza families have at least 1 child under the age of 5 who suffers from diarrhoea.**

What does Interpal do?

- Provide **needy families,**
schools and **hospitals**
with clean and fresh
water.

The Water Well in Gaza



Where water is filtered and purified



Clean water is stored in these tanks





Inside one of the any poor houses in Gaza









**What does Gaza's
siege mean?**



GAZA STRIP

-  Built-up area
-  Refugee Camp
-  Crossing Point

Kilometers
0 1 2 3 4

MEDITERRANEAN
SEA

ISRAEL

EGYPT



- Gaza has two human crossings: one with Israel to the north known as the Erez crossing, the other with Egypt to the south known as the Rafah crossing.

- After the 2006 Palestinian elections, Israel imposed a naval, aerial and ground blockade on the Gaza Strip.

What does a siege look like on the ground?

- The (almost) complete closure of borders, resulting in limitations on people's movement.
- A shortage of raw materials such as concrete and flour.
- The highest unemployment rate in the world.
- Widespread post-traumatic stress disorder (PTSD) amongst the young and old.



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THE PALESTINIAN AUTHORITY

MINISTER OF THE INTERIOR
OR
DIRECTOR GENERAL OF
CIVIL REGISTRATION AND
PASSPORT DEPARTMENT

وزير الداخلية
أو
مدير عام الاحوال
والجوازات

1967528

WAFAA MAQIL

وفاء مجدي محمد عقيل

15

FULL NAME

YOUSRA

412398083

5 years

MOTHER NAME

CONCERN

412398083

1000

24-06-1997

1997-06-24

DATE OF BIRTH

U.K.

المملكة المتحدة

2741 0150

Female

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STUDENT

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PROFESSION

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جمهورية مصر العربية
République Arabe d'Egypte



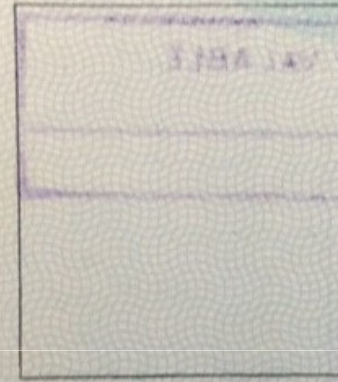
وثيقة سفر
للأجانب الفلسطينيين
DOCUMENT DE VOYAGE
POUR LES REFUGIES PALESTINIENS

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الصورة الشمسية PHOTOGRAPHIE

زوجته Epouse



توقيع زوجته
Signature de l'Epouse

حامل الشقة Titulaire



توقيع حامله
Signature du titulaire

Signature

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بالأوصاف SIGNALEMENTS

زوجته Epouse

حامله Titulaire

المهنة Profession
معيد بالجامعة الإسلامية بنزرة

محل الميلاد Lieu de Naissance
ناظية

تاريخ الميلاد Date de Naissance
١٩٥٤-٦-١٧

محل الإقامة Domicile
نزرة

الطول Taille
١٦٨

العيان Yeux
الزهر

الشعر Cheveux
الأسود

الأوصاف المميزة Signes Particuliers

ENFANTS — الأولاد

تاريخ الميلاد Date de naissance	الجنس Sexe	الاسم Nom
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- (١)
- (٢)
- (٣)
- (٤)
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مبنى رفح البري





















My last visit to Gaza:
November 15th 2016



UNITED NATIONS

RELIEF AND WORKS AGENCY
FOR PALESTINE REFUGEES
IN THE NEAR EAST



REGISTRATION CARD

وكالة الأمم المتحدة
لإغاثة وتشغيل اللاجئين الفلسطينيين
في الشرق الأدنى

بطاقة تسجيل

REGISTRATION NO ▼

27504665

EXCODE ▼

326683

RANK ▼

01

FAMILY NAME ►

KHADIJEH MOHD CHANHALEH

IND. NAME ►

KHADIJEH

SEX ► F

REL. SHIP ►

WHF00

BIRTH
DATE ►

1932

FIELD ►

GAZA

ISSUE
DATE ►

07/83

CAT ► R

ORIGIN ►

BEIT DARAS







Thank you