

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الجمهورية اليمنية
Republic Of Yemen



Yemen Country Report

Developing and Implementing
Mitigation and Preparedness for Water
Scarcity and Drought (WS&D)
Management Plans
Zaragoza, Spain



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7 May 2014

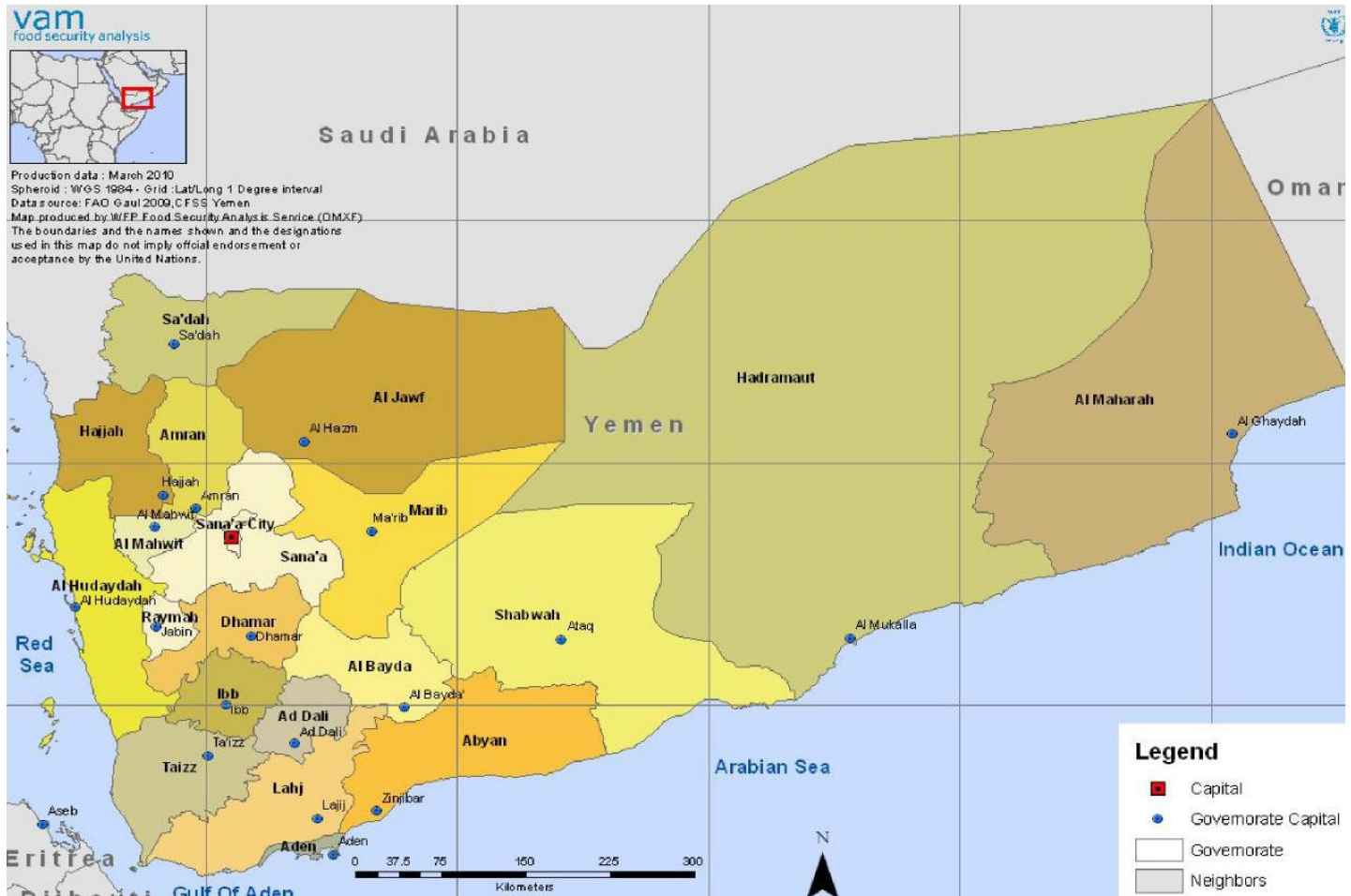
WORLD DEVELOPMENT INDICATORS

Income Group	Low
Population	24.8 million
GDP	US\$1,361/capita
Poverty	35% of population
Urban Population	32% of total

Yemen total land area is 527,968 km²



Governorates



Key messages

- Besides civil unrest, a variety of internal and external factors are putting further strain on Yemen's limited resources.

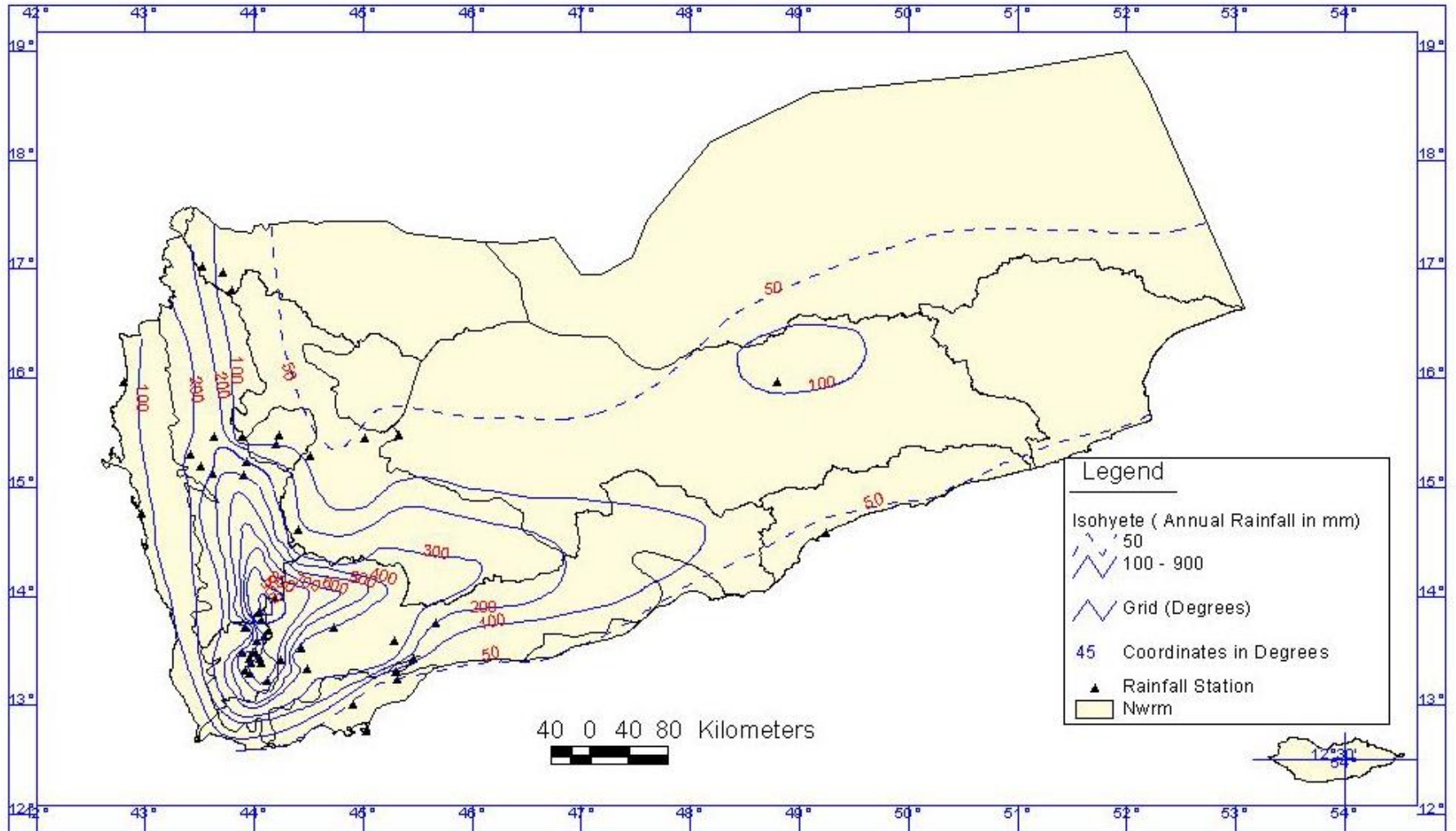
The food, water, fuel and financial crises led to an increase in poverty to an estimated 43 percent from 35 percent in 2006.

- Food prices have risen dramatically
- The poorest people are the most vulnerable

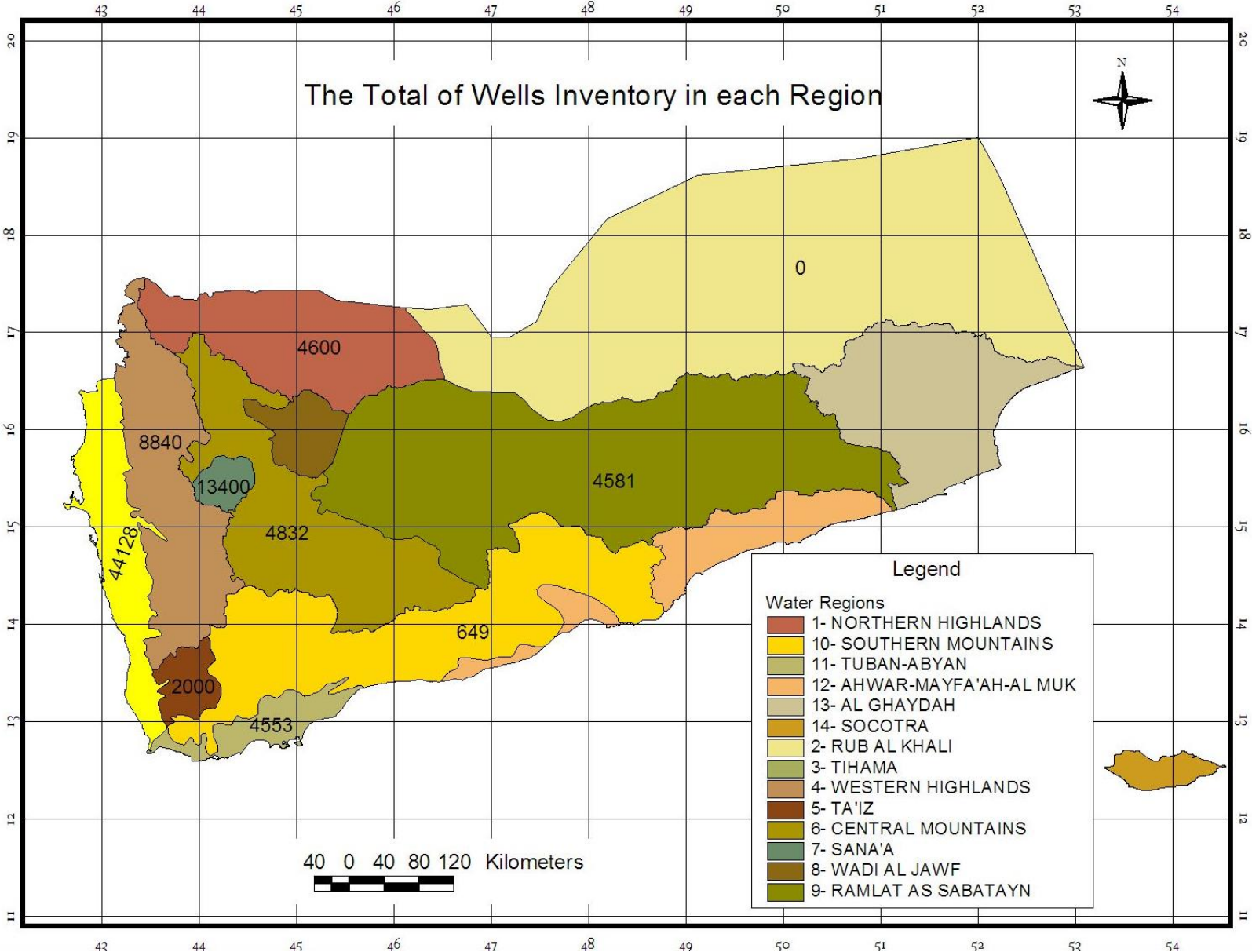
Water situation

- The climate is variable, with seasonally intense, short-lived heavy storms that produce flash floods, interspersed with long dry periods resulting in widespread droughts, all exacerbated by the impact of climate change.
- Climate change is expected to intensify the variation in precipitation distribution, most likely leading to a hotter climate with more frequent droughts, high aridity and fast-depleting groundwater reserve
- Yemen is already one of the most water-scarce countries in the world, lacking rainfall and surface water. With High population and high growth.

Republic of Yemen
National Water Resources Authority
Yemen Isohytes-MAP (mean 2000 -2004)



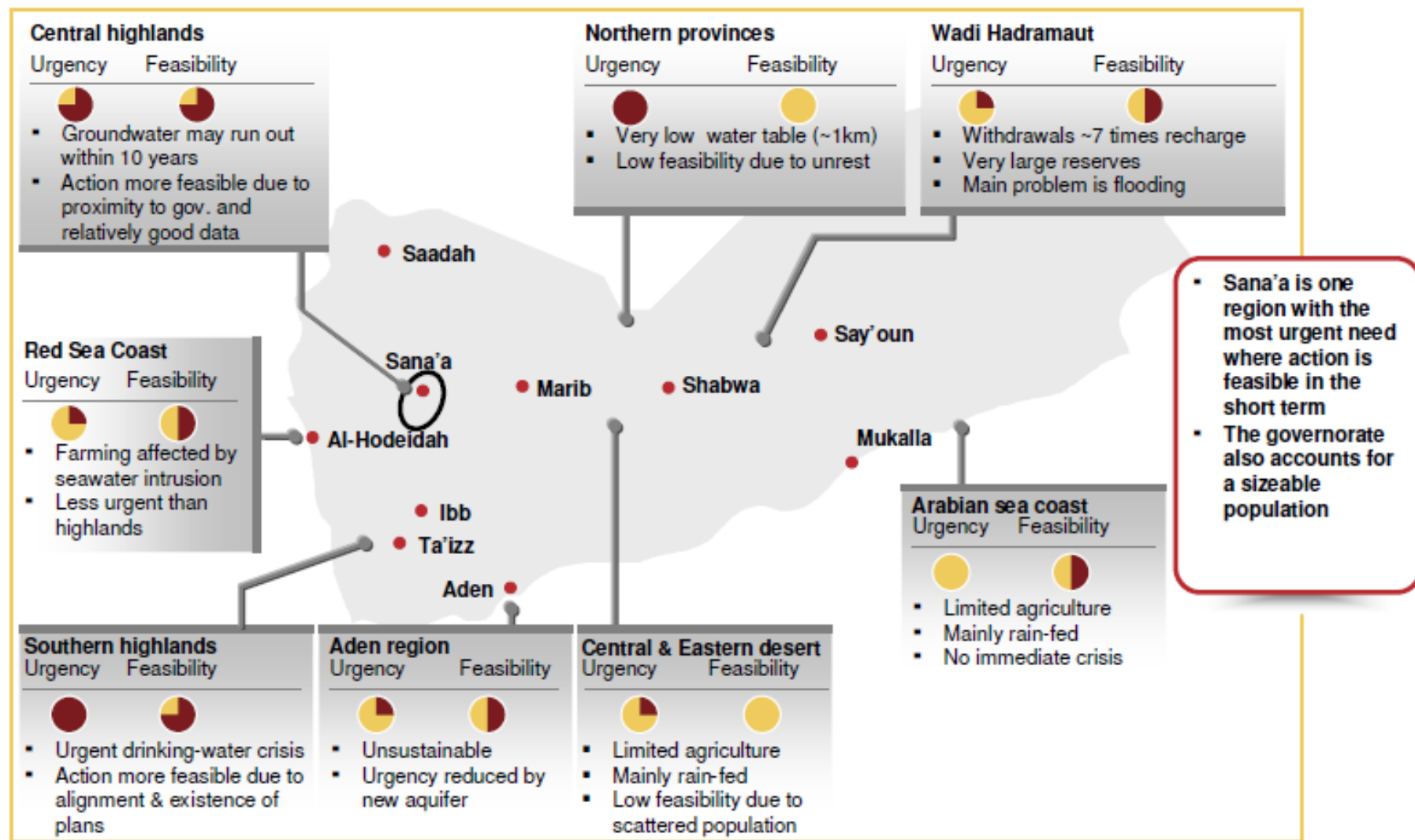
Water Basins & Number of Wells



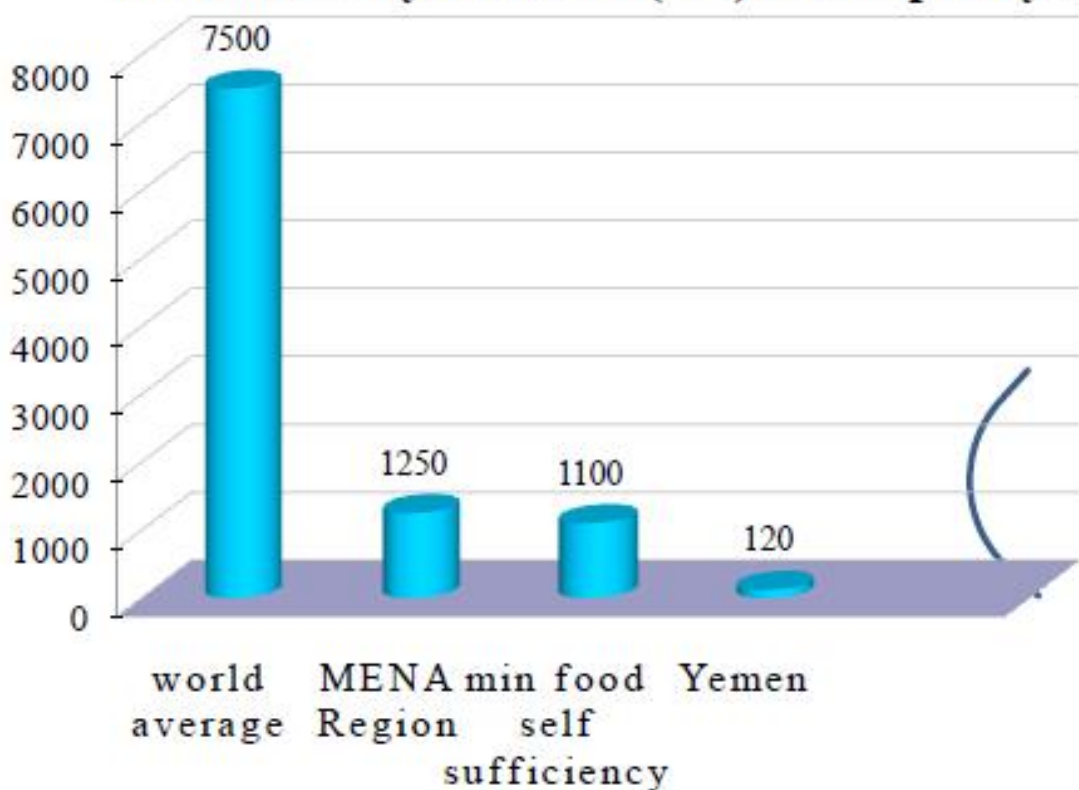
Water crisis varies by region; Sana'a basin in particular requires urgent attention, & could be a compelling pilot for tackling Yemen's water situation

Key water challenges in Yemen, by region

○ Areas of focus ● High ● Low



■ Availability of Water (m³)Per Capita/ year



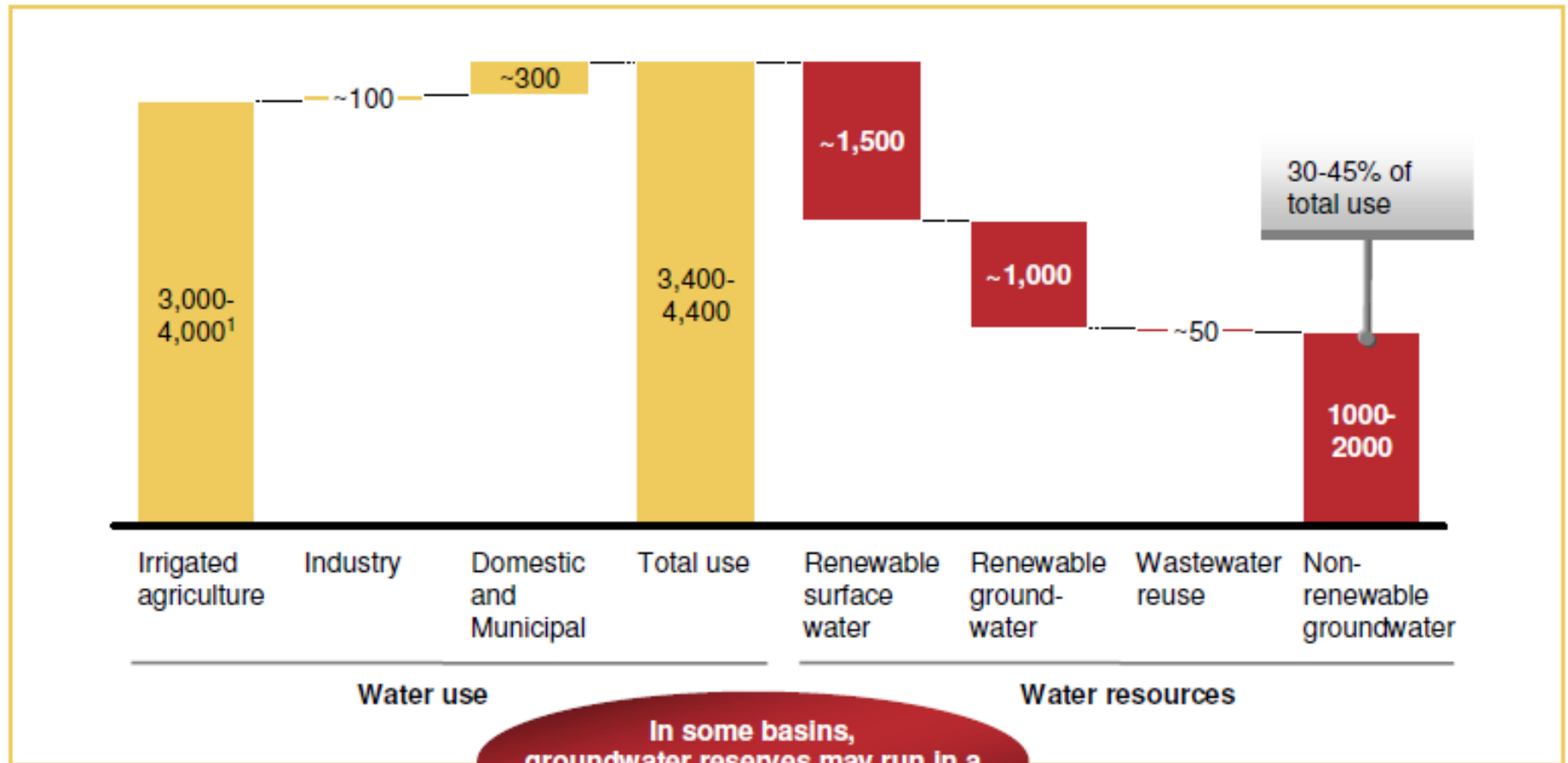
Source: Hellegers, et al., 2008

Year	Yemen (m ³ /per capita/ year)	Middle East & North Africa Region (m ³ /per capita/ year)	World Average (m ³ /per capita /year)
1969	481	3,430	
1990	214	1436	
1997	140	1250	7,500
2025	72	667	

Yemen's water use is not sustainable; while estimates of usage vary, all previous studies indicate heavy reliance on non-renewable water resources

2008 water volume (estimate which is crudely indicative and needs to be updated based on new comprehensive studies), MCM/year

ESTIMATES ONLY
DIRECTIONAL



¹ Estimates vary widely depending on the source: JIKA (1997) reports ~3,000 agricultural usage; Recdecker (2007) reports ~4,000, but this does not count recharge from pumped water, according to NWRA incentives study

Yemen's three water problems

1. The rapid rate at which Yemen's aquifers are being exhausted

Non-renewable groundwater is being mined...

...and the large part of the economy dependent on the groundwater resource is consequently under threat

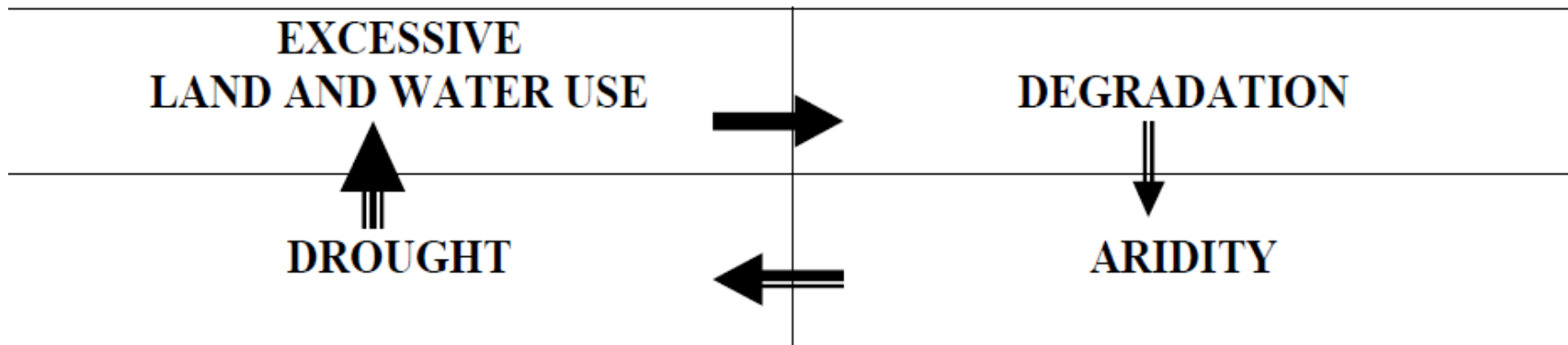
2. The lack of secure bulk water supplies for Yemen's settlements

In particular, there is no mechanism for equitable transfer of water from lower value uses such as agriculture to higher value uses in water supply

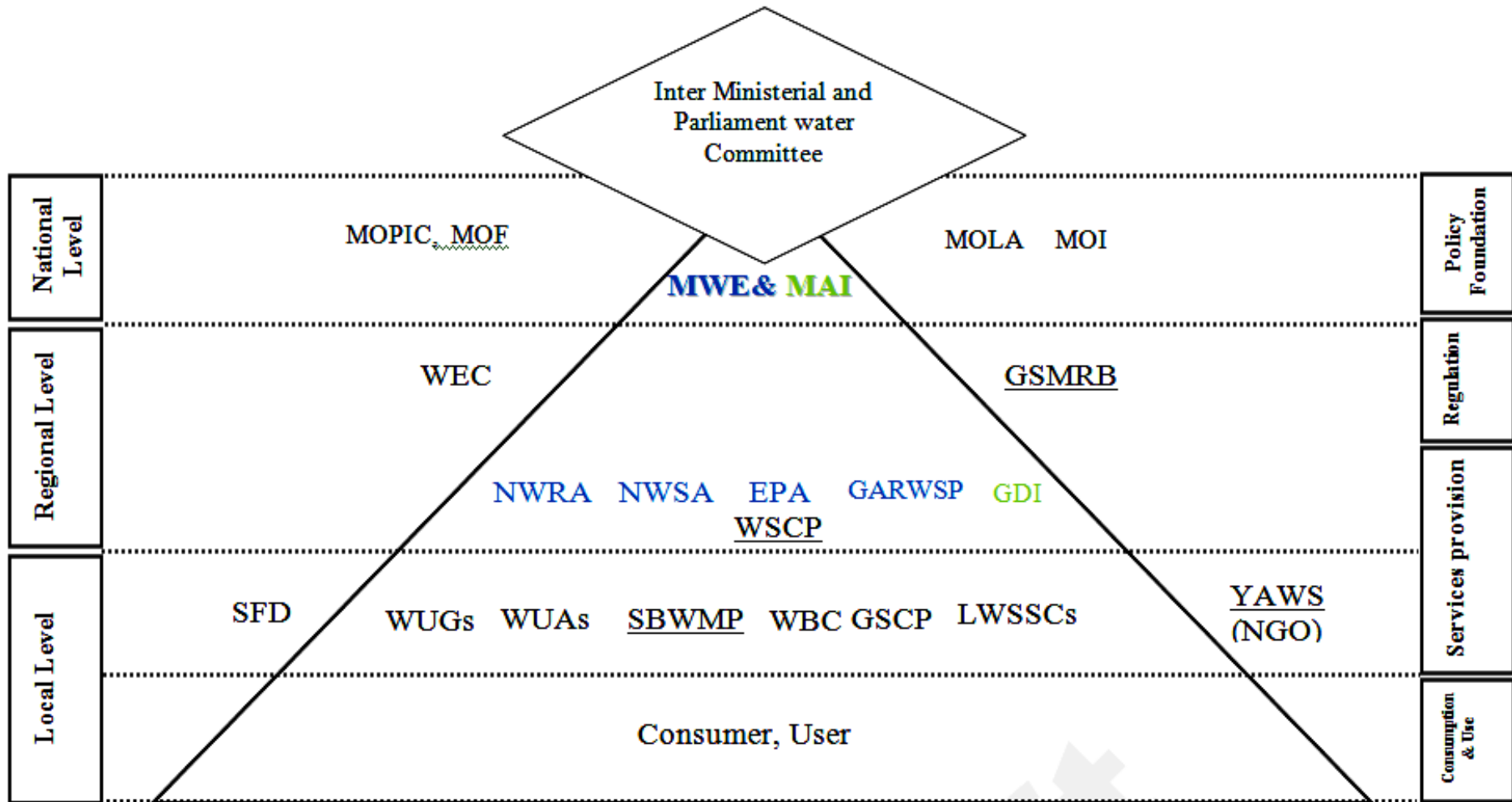
3. Low access of Yemenis to safe water and sanitation services

- in urban areas, only about 56% for safe water and 31% to safe sanitation
- in rural areas, about 45% for safe water, and only 21% to safe sanitation

Low access to water and sanitation services has negative and impoverishing effects on public health, children's education and general well being.



Organization Chart



The need for a partnership approach amongst all stakeholders

Yemen will only succeed in improving water management when:

- the entire nation acknowledges the problems

and

- all stakeholders cooperate together in a partnership approach MWE & MAI

Steps taken by the government

Government has been aware of these reform challenges for a number of years, and has taken some significant institutional steps:

- creation of NWRA (1996)
- enactment of the water law (2002)
- setting up of the Ministry of Water and Environment (MWE, 2003)
- Passing of the by-laws to the Water Law (2011)

In 2004, MWE prepared the National Water Sector Strategy and Investment Program 2005-9 (NWSSIP)...

...and an Update for 2009-2015 was prepared in 2008

As results of 2011 political unrest, MWE carried out a new update for the coming 2 years

- Water studies and plans for many basins
- Climate change strategy
- Regional Initiative on Water Scarcity
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- Drought Management Plan

Drought Management Plan

- Workshop for all stakeholders
- Establish the steering committee

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Successful responses to the crisis depend on the Yemeni nation joining together to endorse these approaches and ensuring that they get implemented

Thank you

