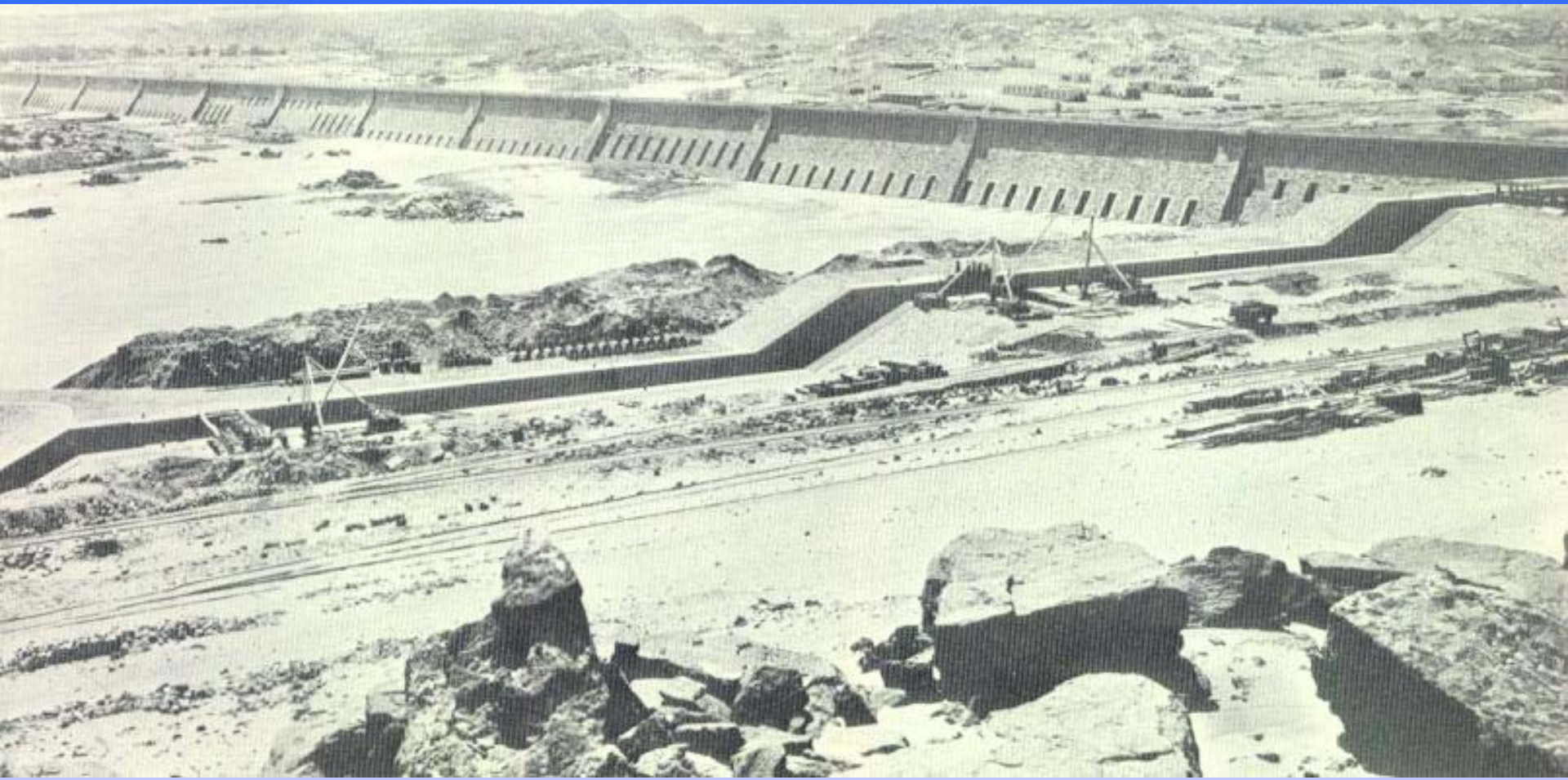


Aswan Dam 1902

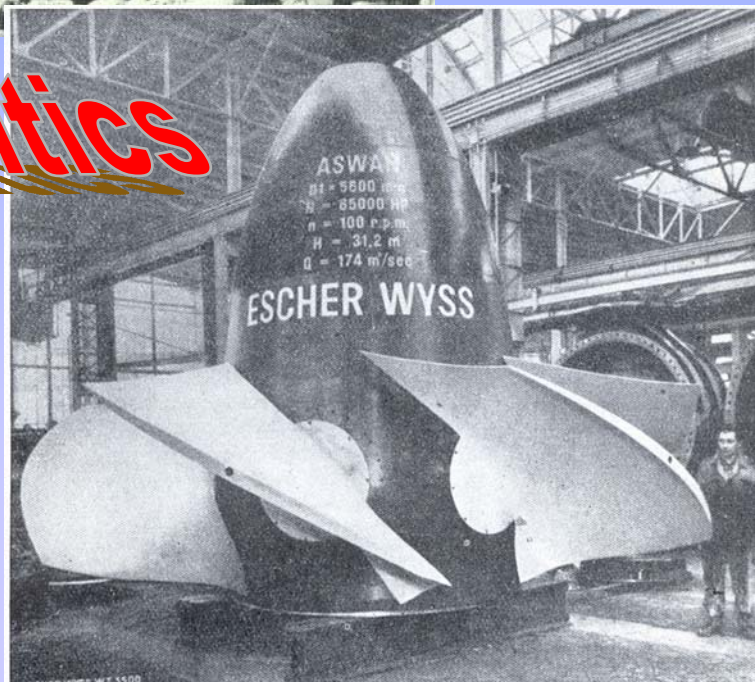
Machines

and

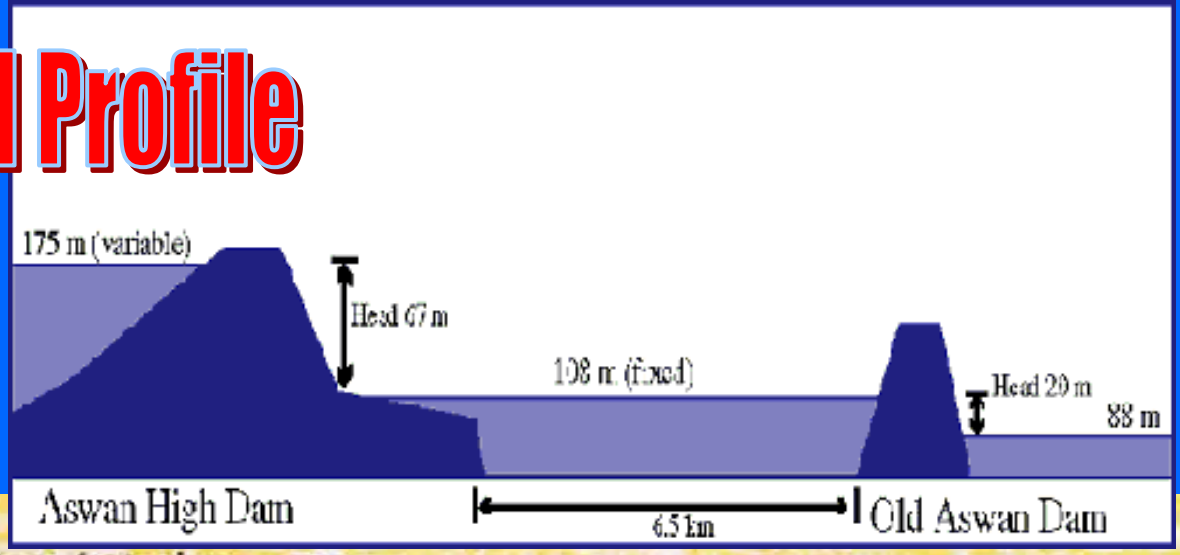
Labour

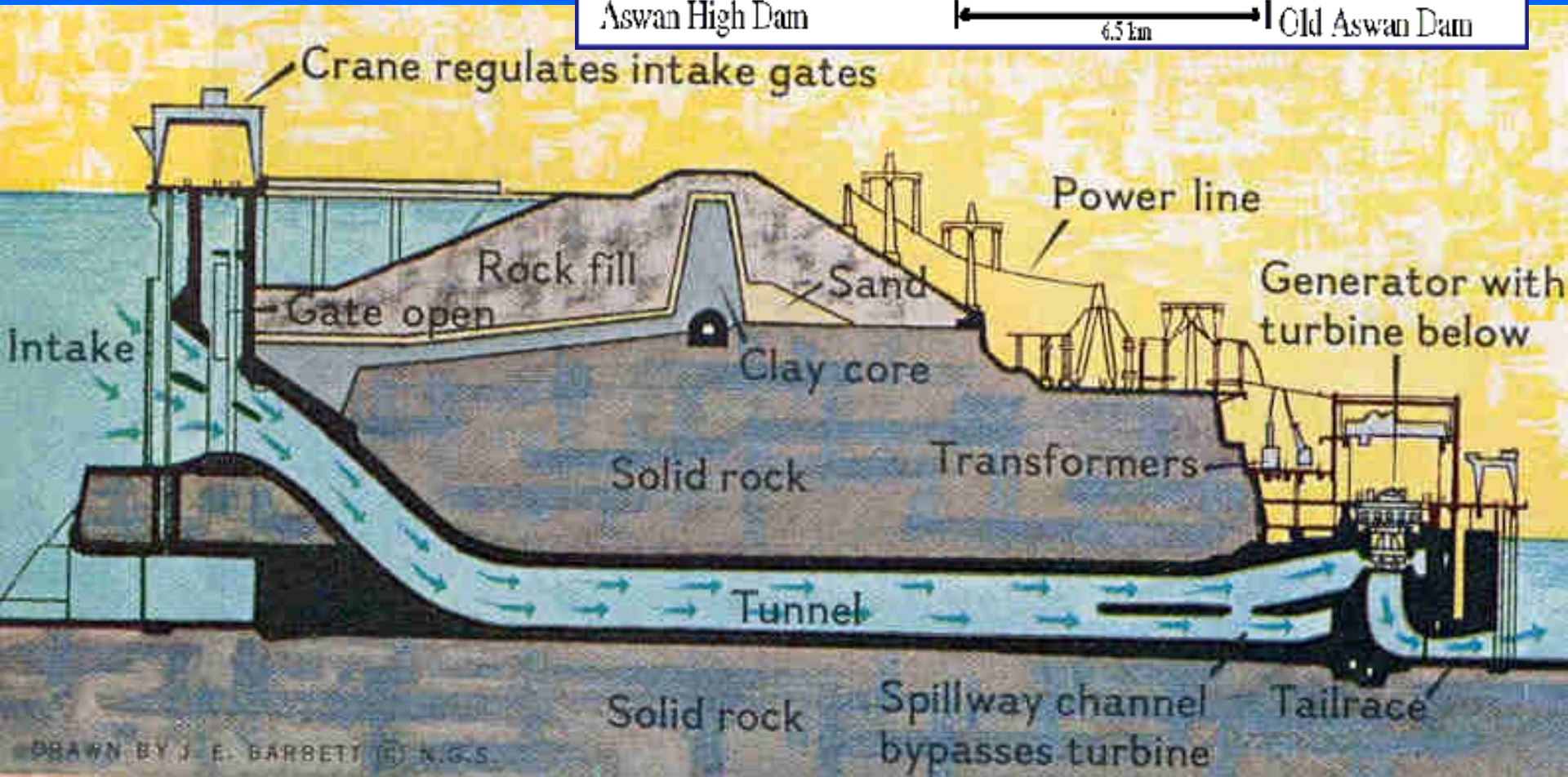
7 *From left to right:* Osman Ahmed Osman, Prime Minister Aly Sabry, and Engineer Sidki Suleiman Minister of the High Dam, with Chief

People and Politics



Cross Section and Profile





N A S S E R

Former bank of Nile

Intake gate crane

Maximum reservoir depth, 318 feet

Former bank of N

Rock fill

Clay

Water depth at completion of first stage, 112 feet

Sand and stone

Inspection galleries

2

4

Power company headquarters

Substation

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GEOGRAPHIC ART DIVISION
PAINTED BY ROBERT W. NICHOLSON, RESEARCH BY JOHN P. WOO

120 Bm^3

Bm3 = Billion Cubic metre

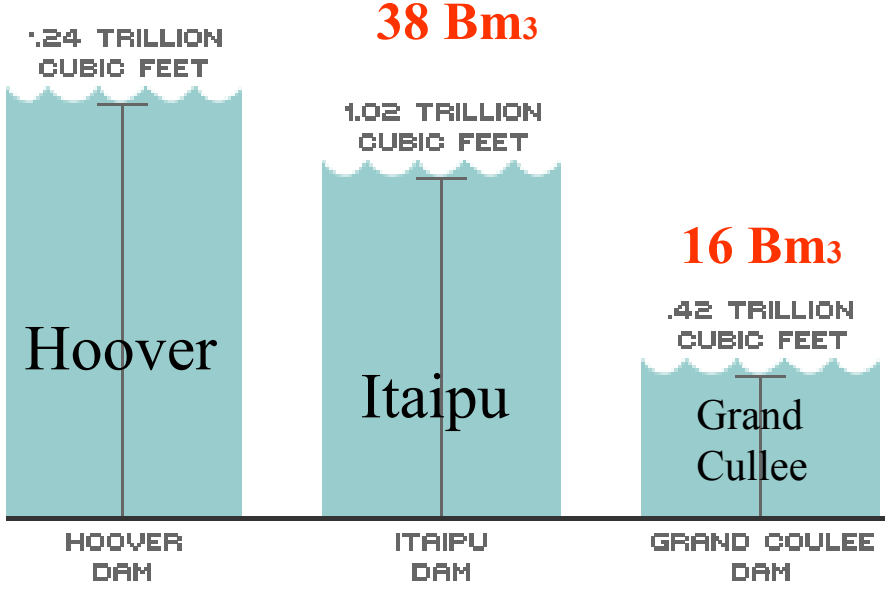
Aswan High Dam

Reservoir Capacity

46 Bm^3

38 Bm^3

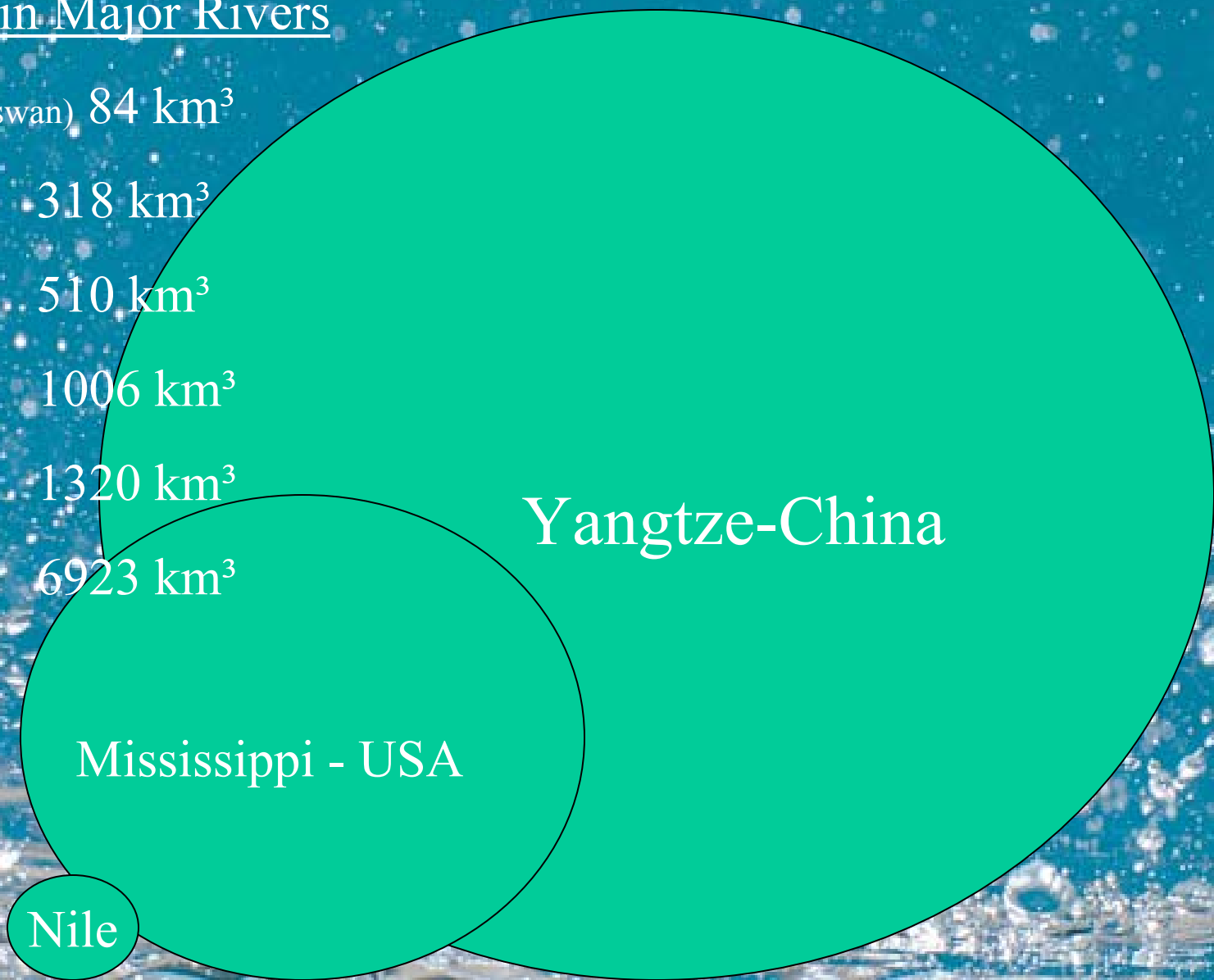
16 Bm^3



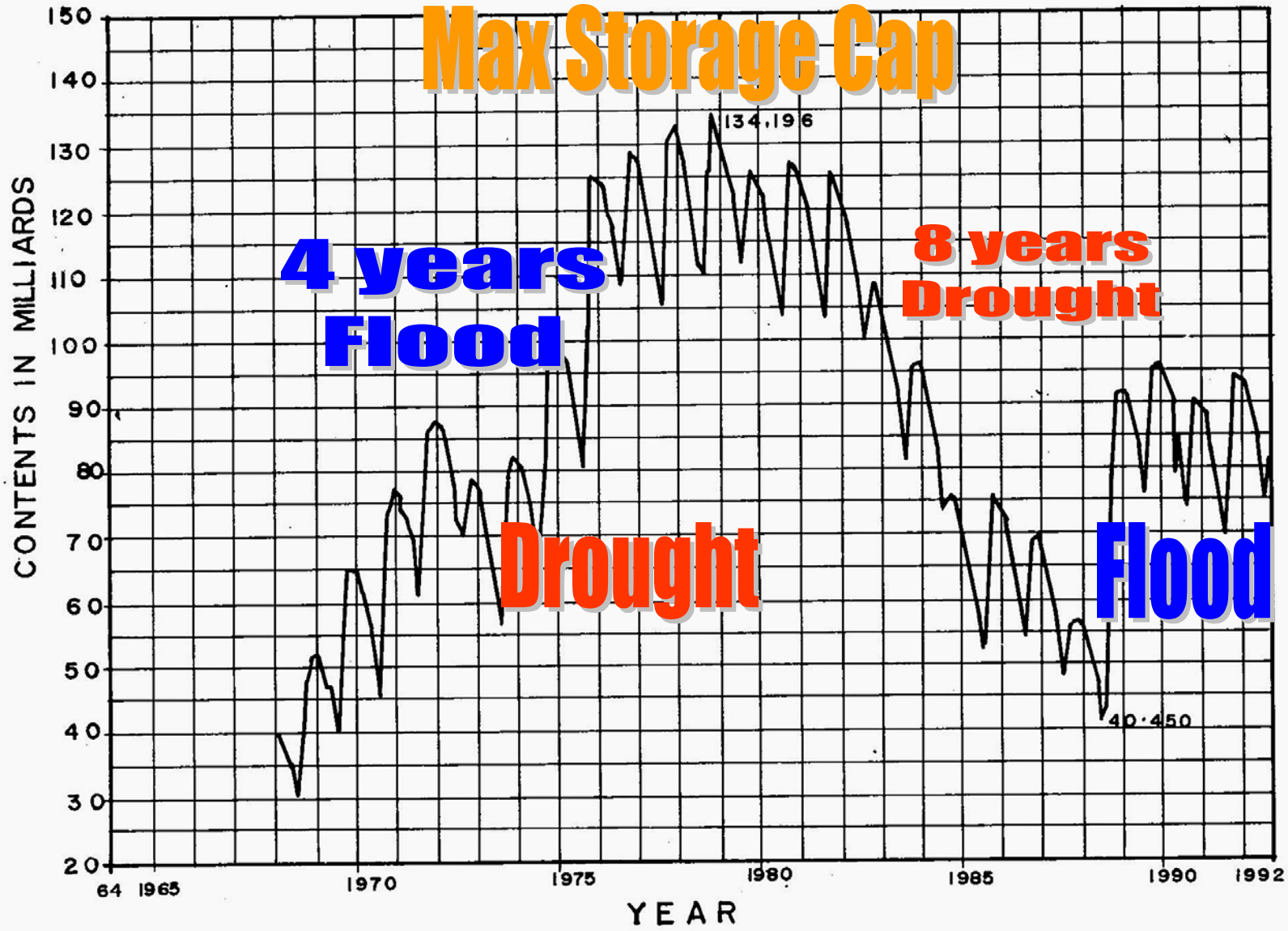
Limited natural flow of water

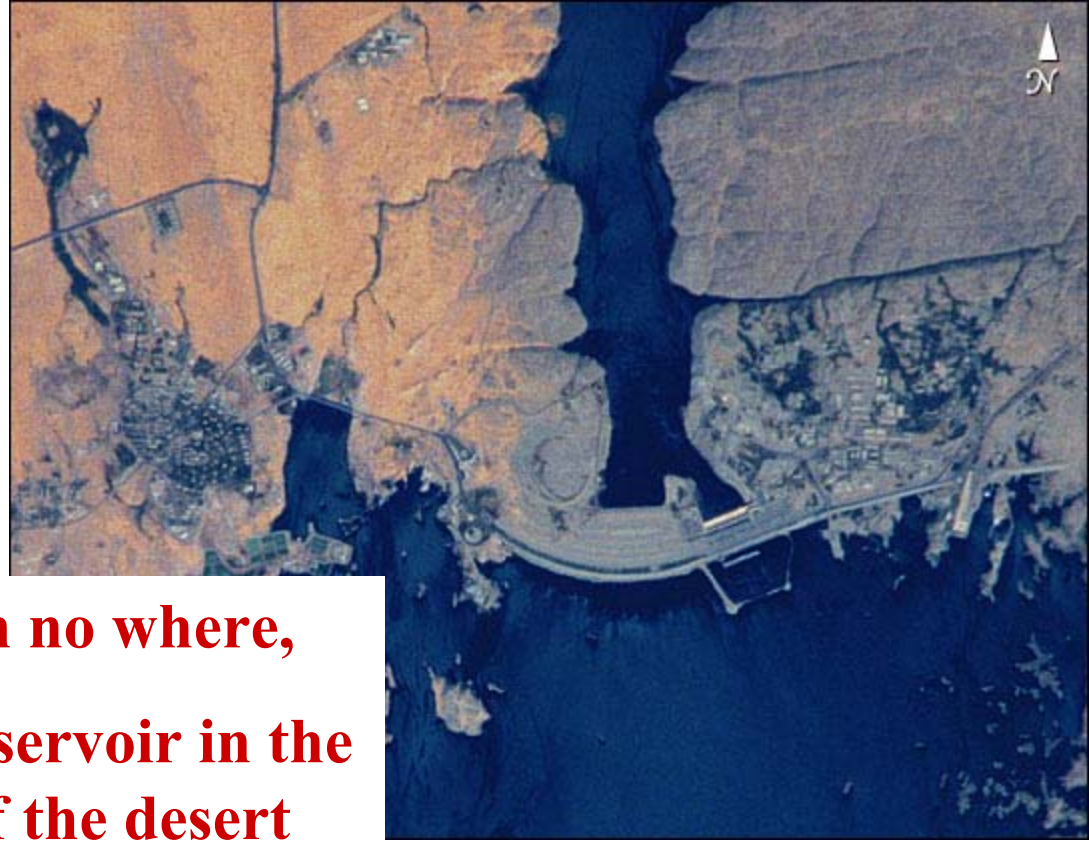
Annual flow in Major Rivers

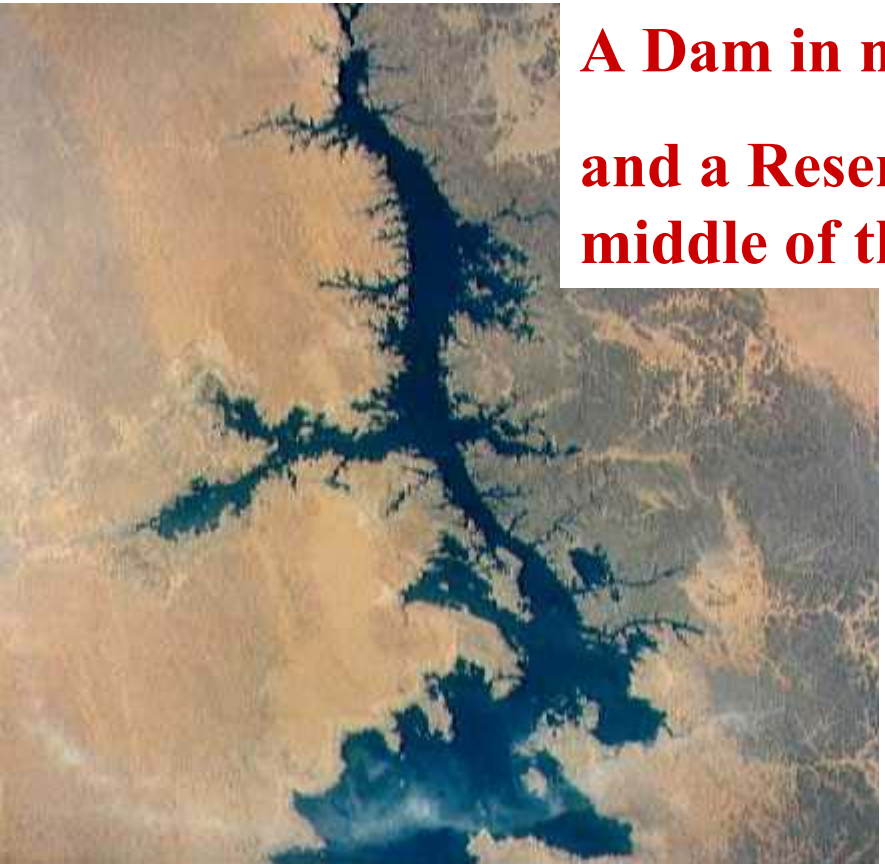
The Nile (at Aswan)	84 km^3
St Lawrence	318 km^3
Mississippi	510 km^3
Yangtze	1006 km^3
Congo	1320 km^3
Amazon	6923 km^3



HOW ASWAN HAS SAVED EGYPT





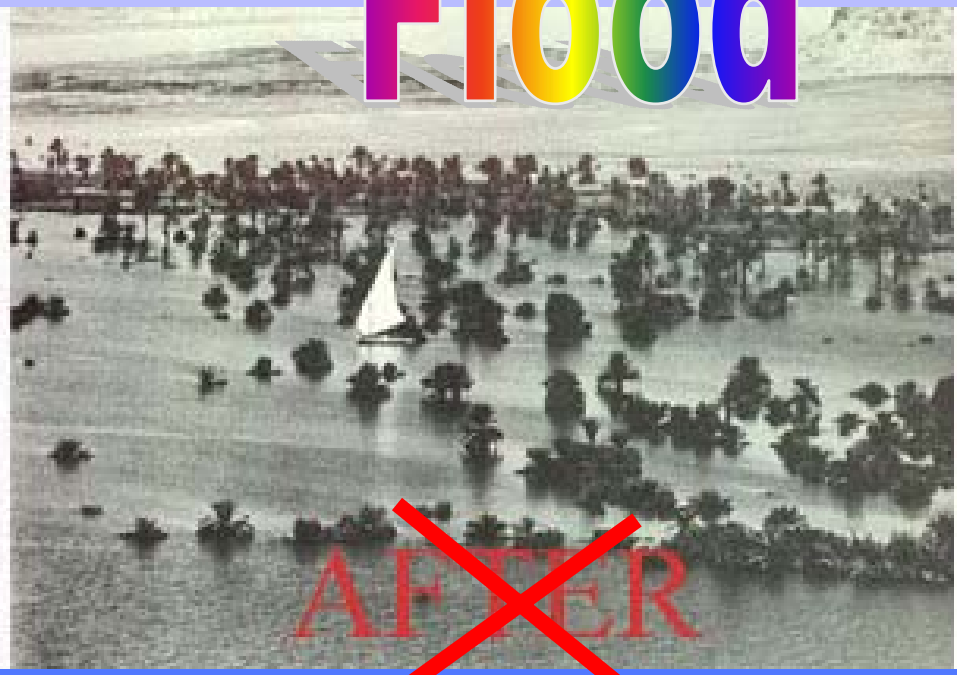


A Dam in no where,

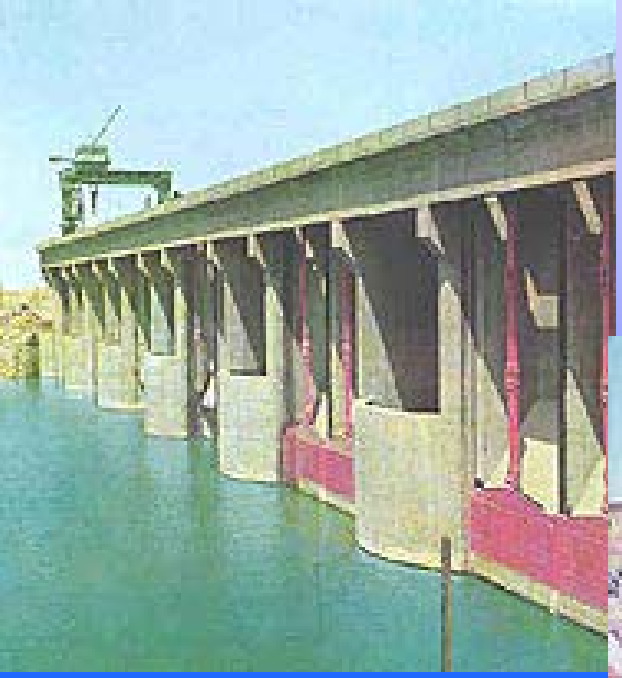
and a Reservoir in the middle of the desert

Perennial Irrigation

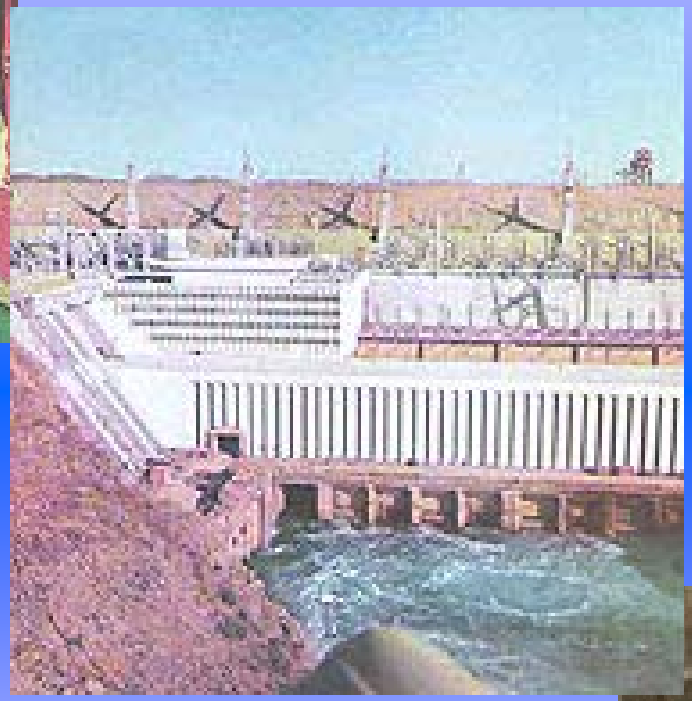
Flood



Media Bias

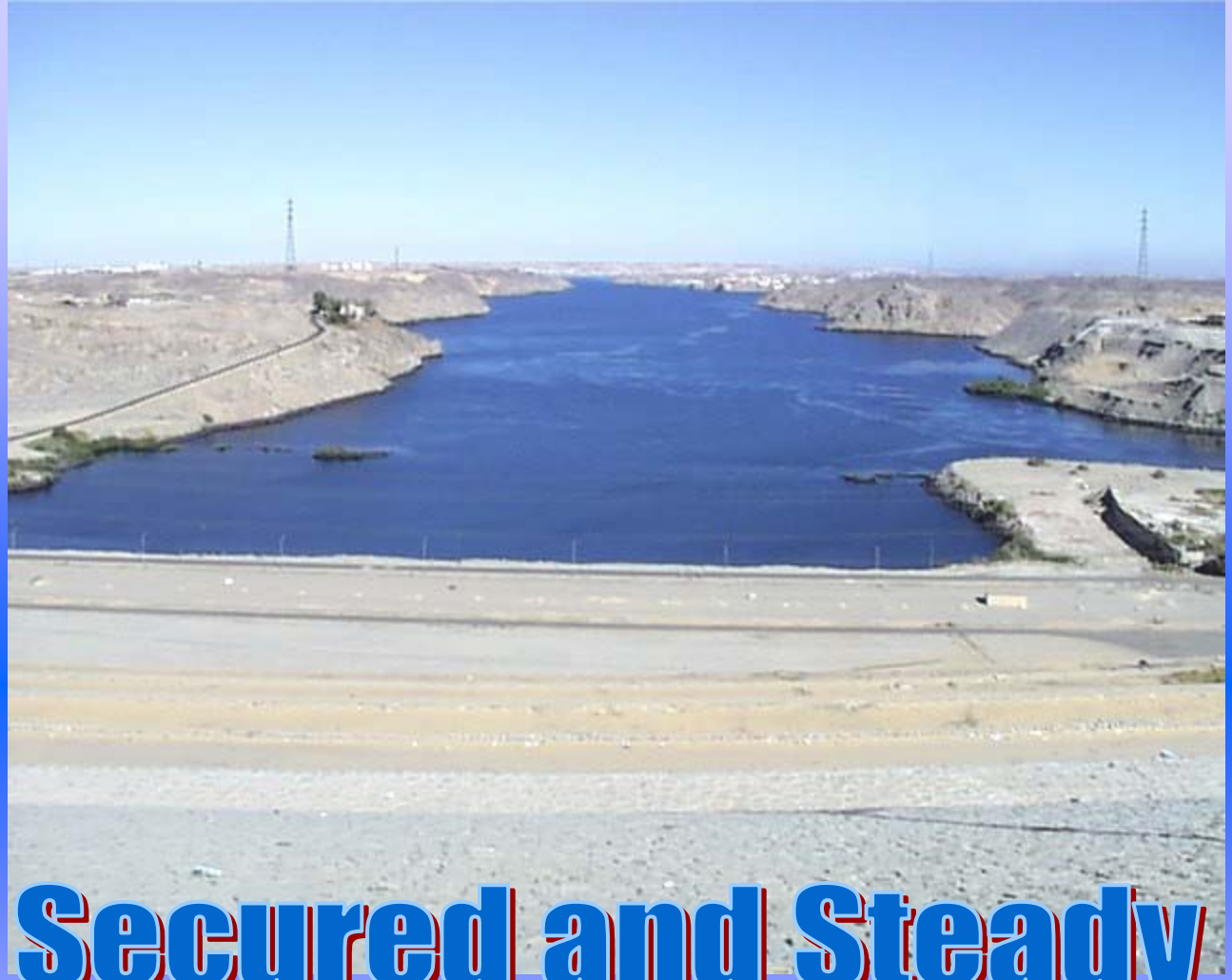


Hydro Power - Clean Renewable Energy

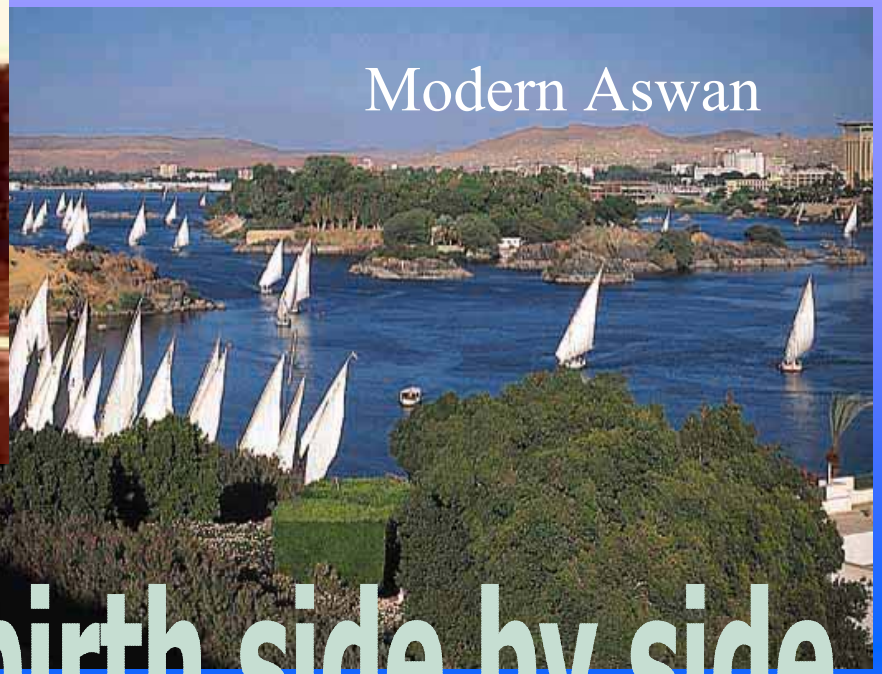


Electricity without pollution

The Nile looking downstream from Aswan High Dam



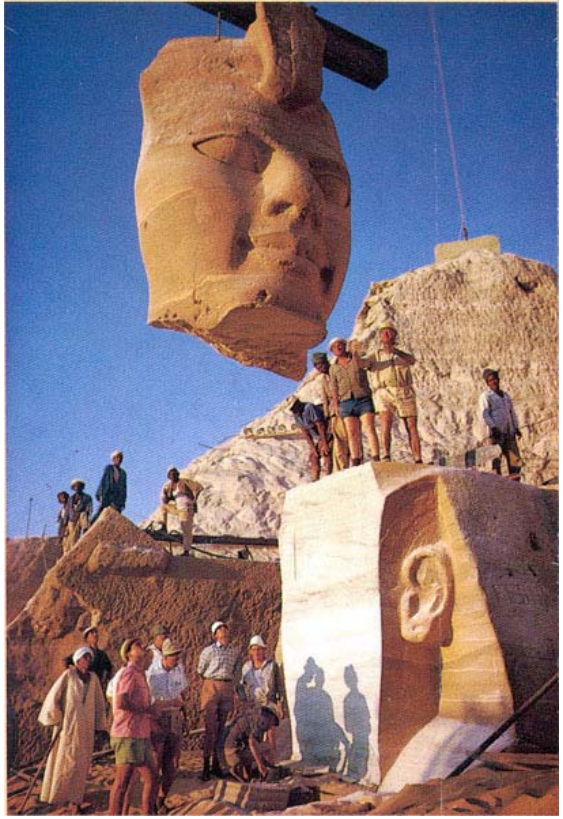
Clean , Secured and Steady Water Supply for the entire nation



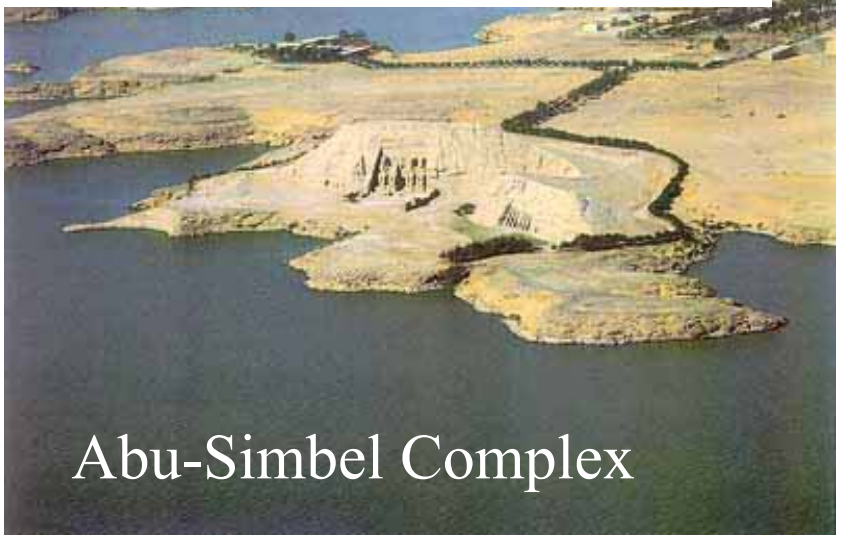
Navigation

Old Life and new birth side by side

Old Life and new birth side by side

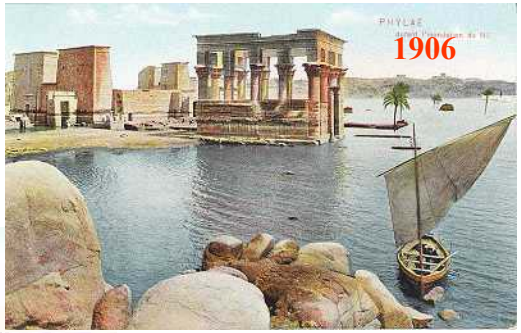


Monuments and world Heritage preserved for future generations

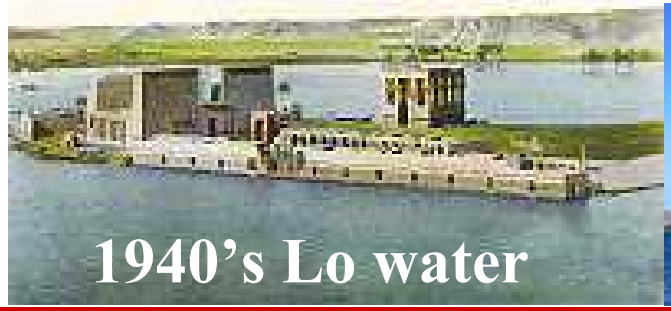


Abu-Simbel Complex

Philae Island Temple

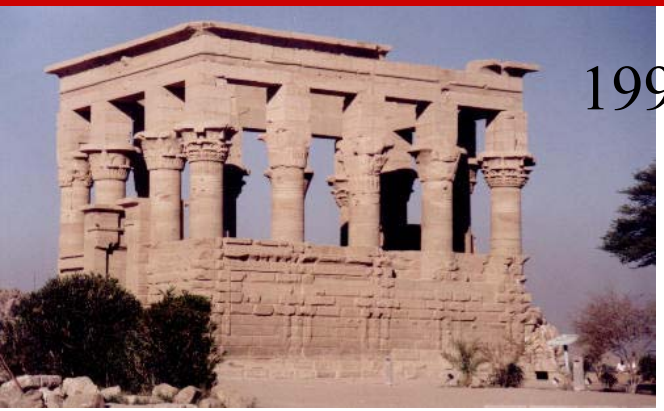


Before



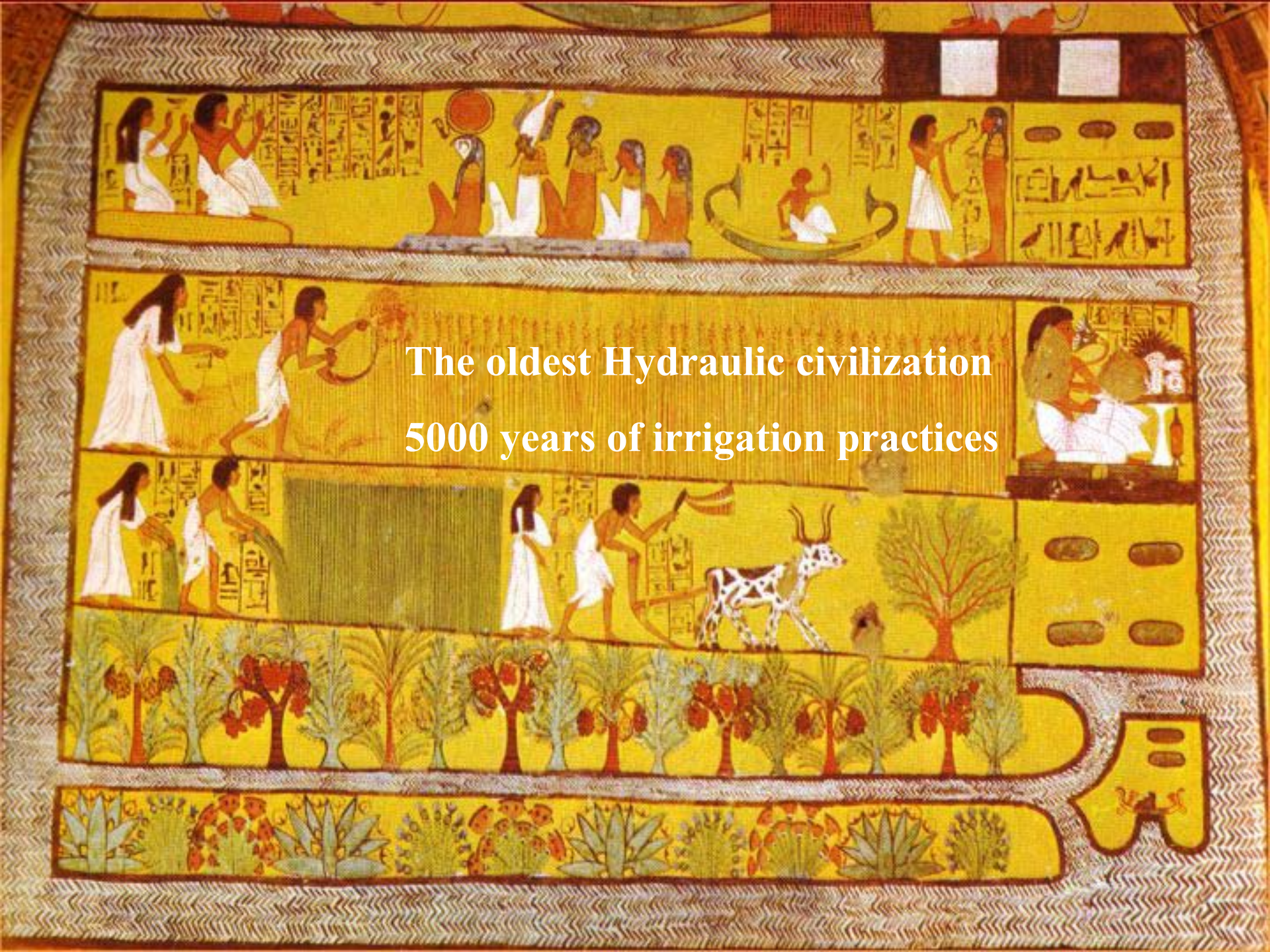
1930's-Hi water

Heritage restored to its glorious past



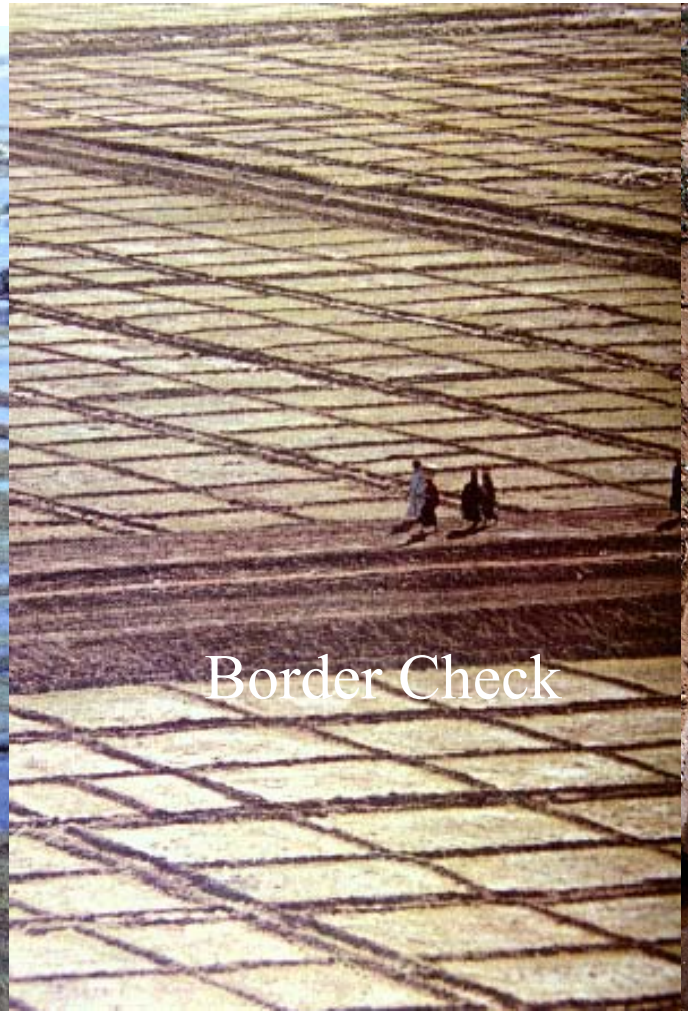
1998 Hi Flood

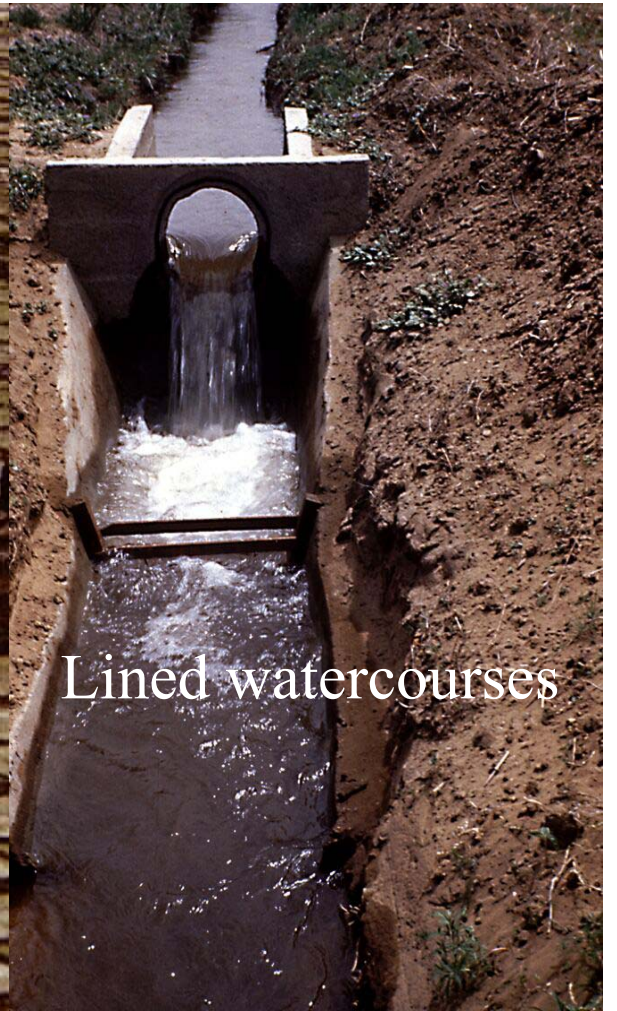
After


The oldest Hydraulic civilization
5000 years of irrigation practices

Modernization of the Irrigation system.

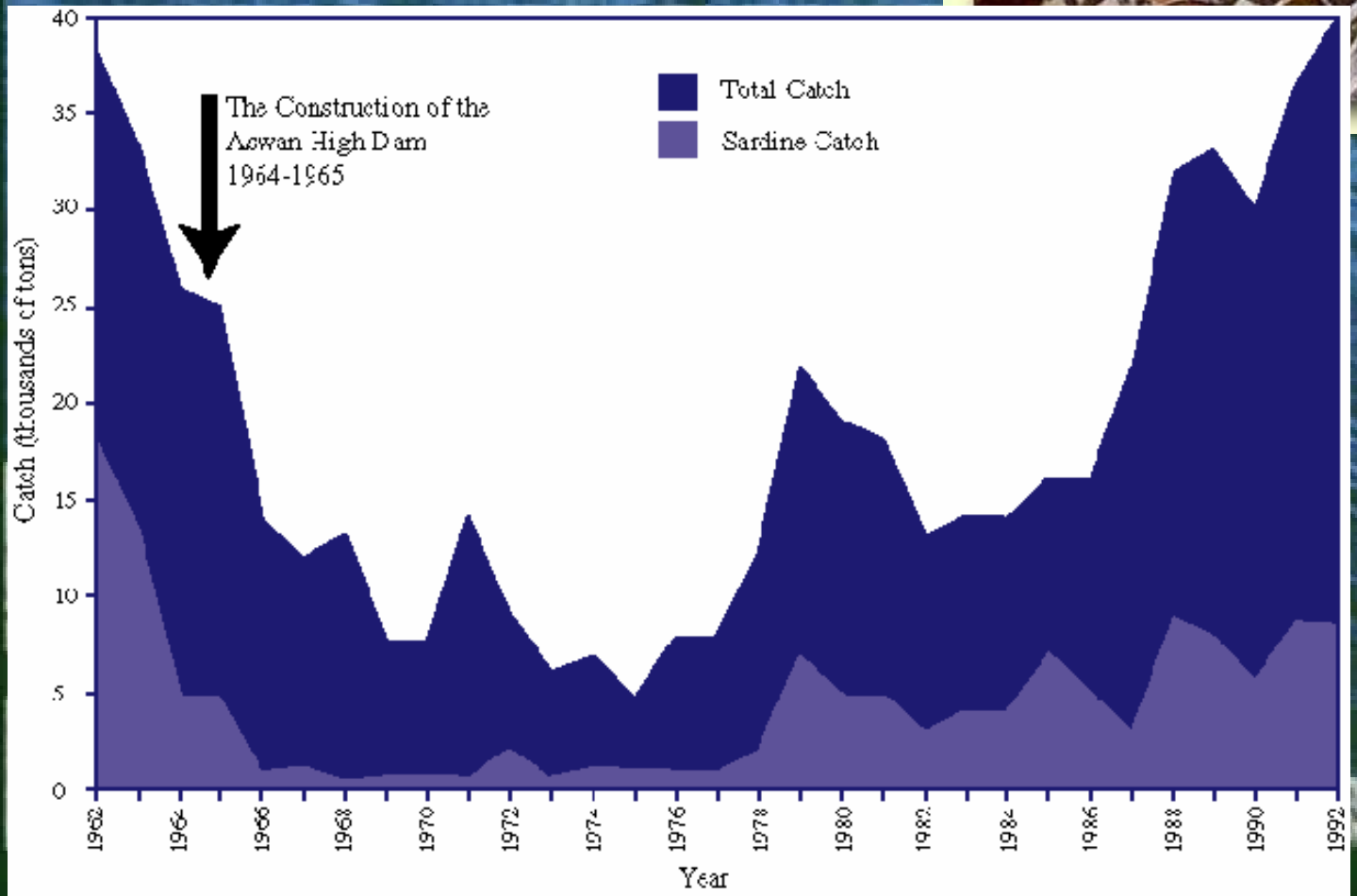
From the very old to the new to the modern.

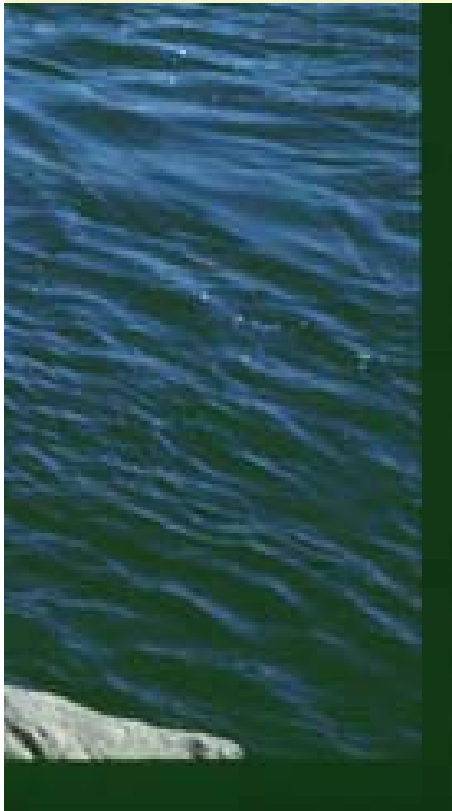




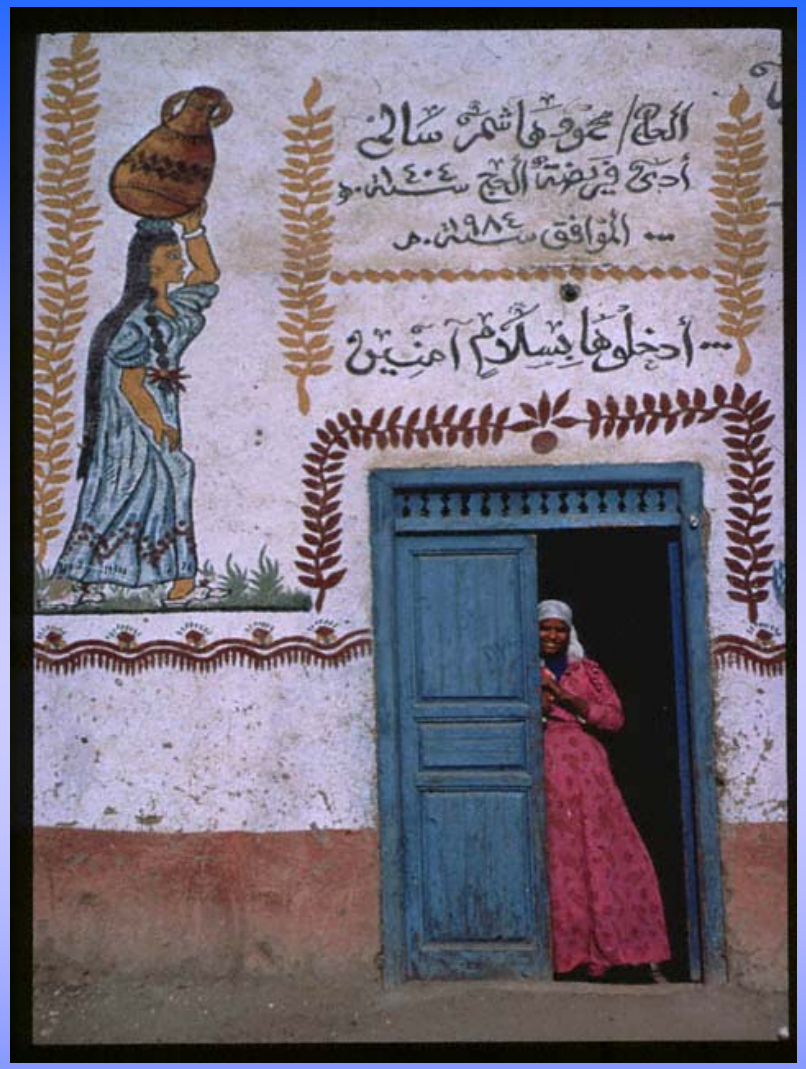
Quadruple the grain production to 19 M tons / year

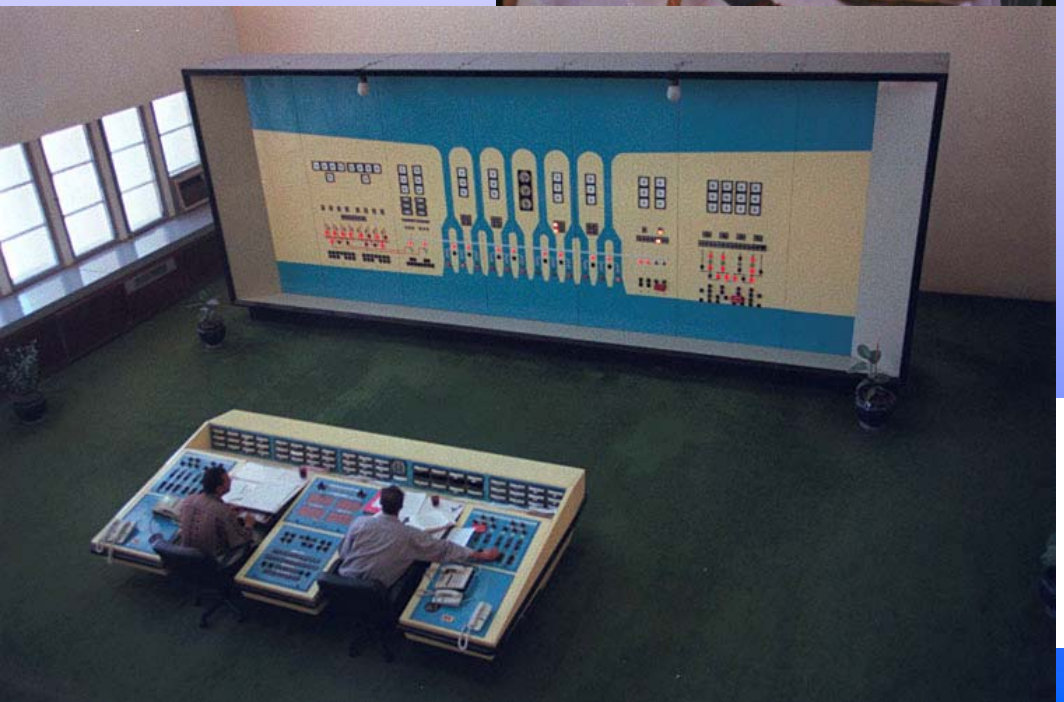
Fisheries are recovering





Native Life Styles preserved

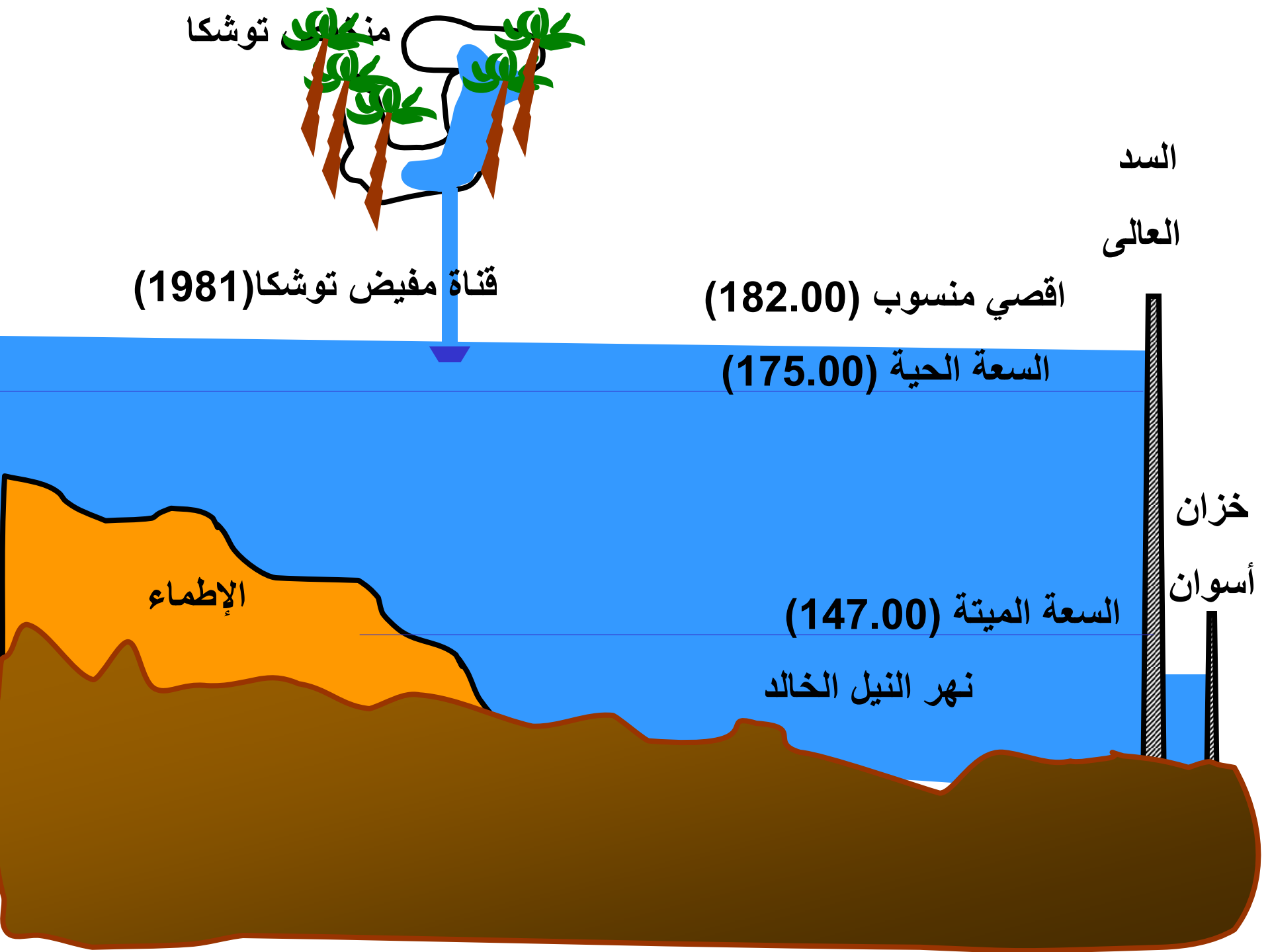




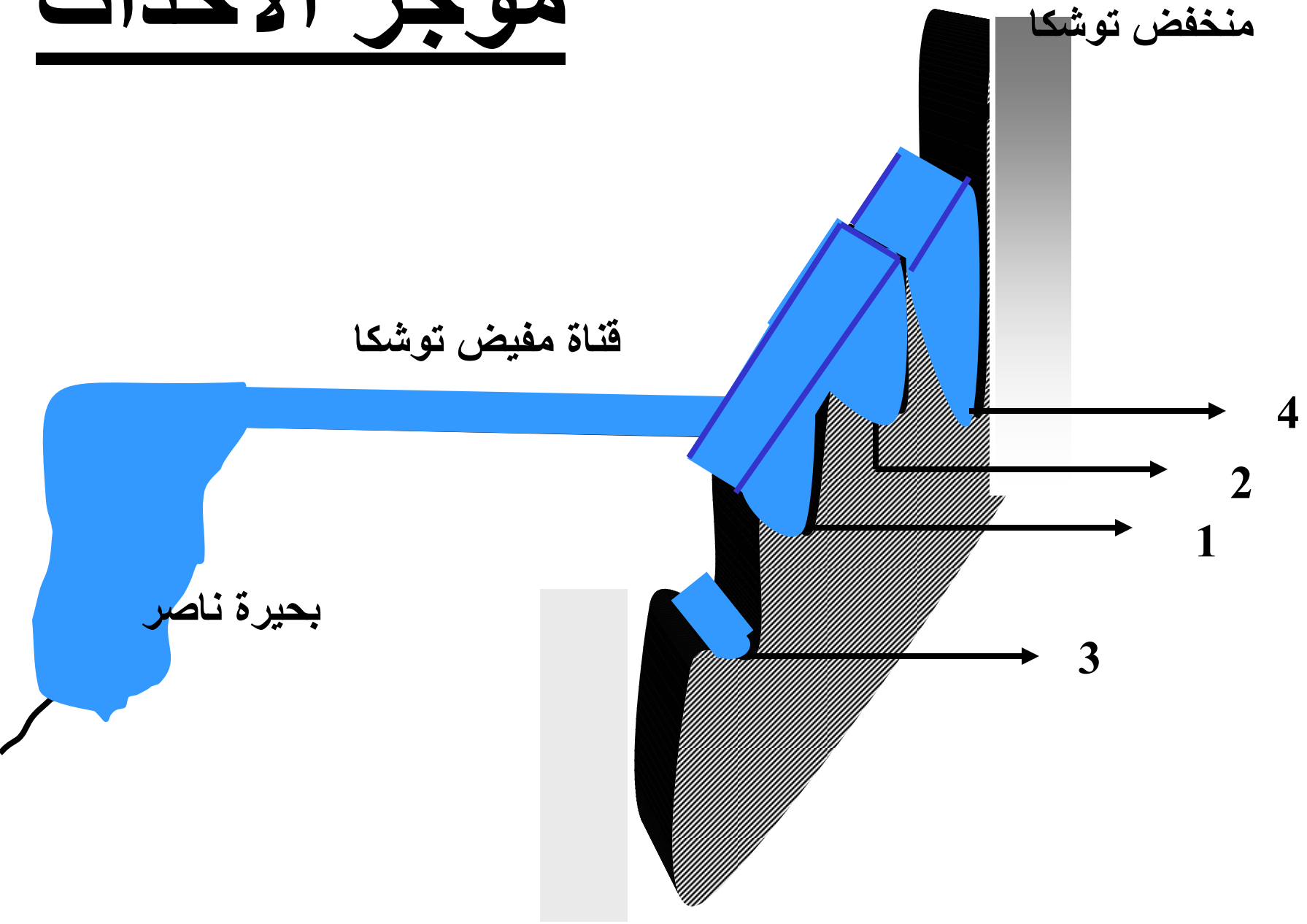
Clean , lean and efficient management at the control panel.

Dealing with the Least Expected effectively

TOSHKA and Desret Reclamation

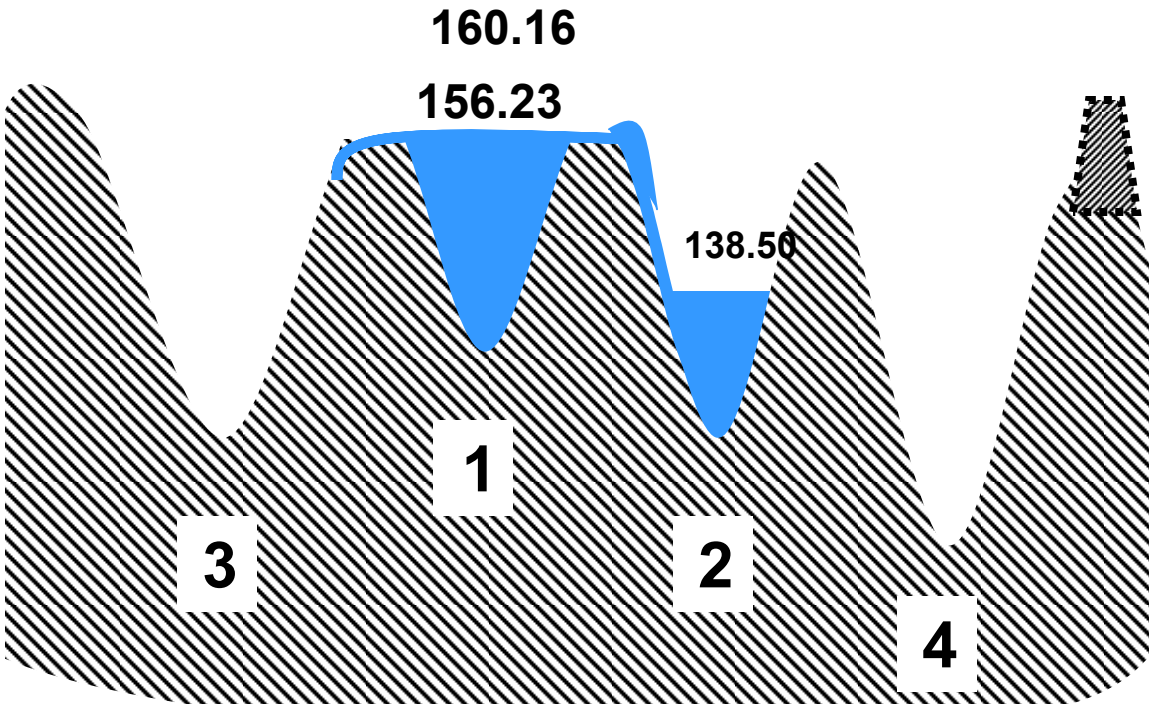

منخفض توشكا
السد
العالى
قناة مفيض توشكا(1981)
اقصي منسوب (182.00)
السعة الحية (175.00)
خزان
أسوان
الإطماء
السعة الميتة (147.00)
نهر النيل الخالد

موجز الأحداث

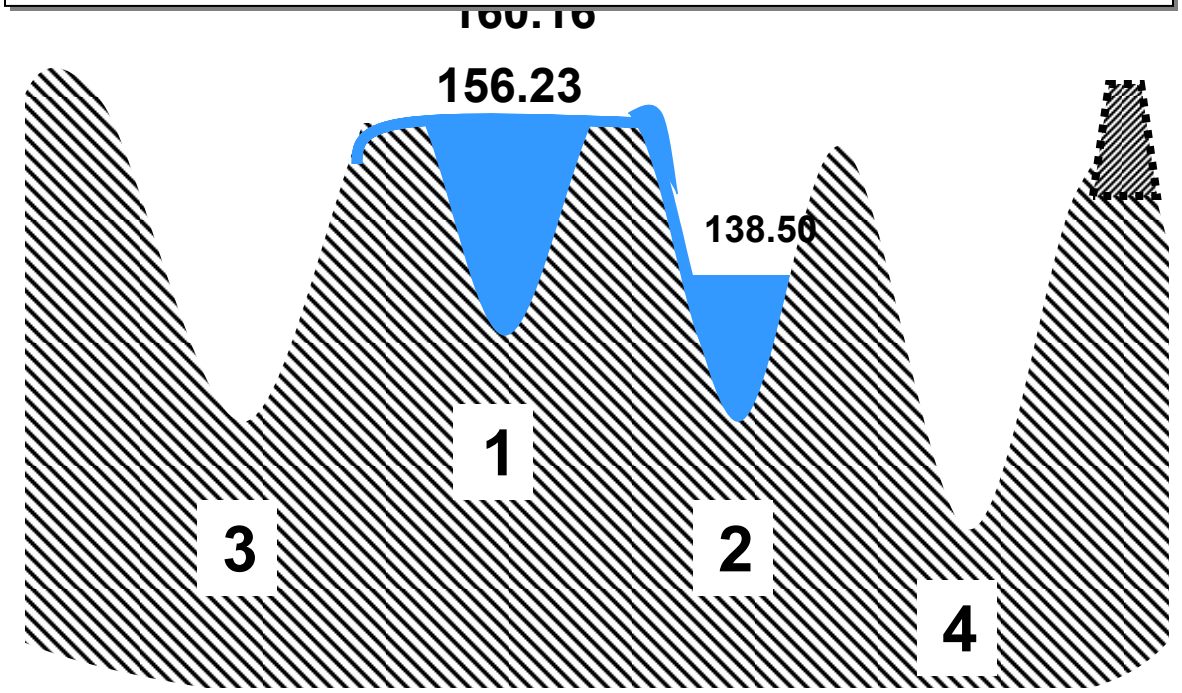


بدأت الوصلة بين منخفضى (1) و(2) فى التآكل نظرا لطبيعتها الانهيارية وتبع ذلك انتقال كميات أكبر من المياه الى منخفض (2) حتى حدثت حالة السبات للمنسوب يوم20 \4\99 حيث كان :

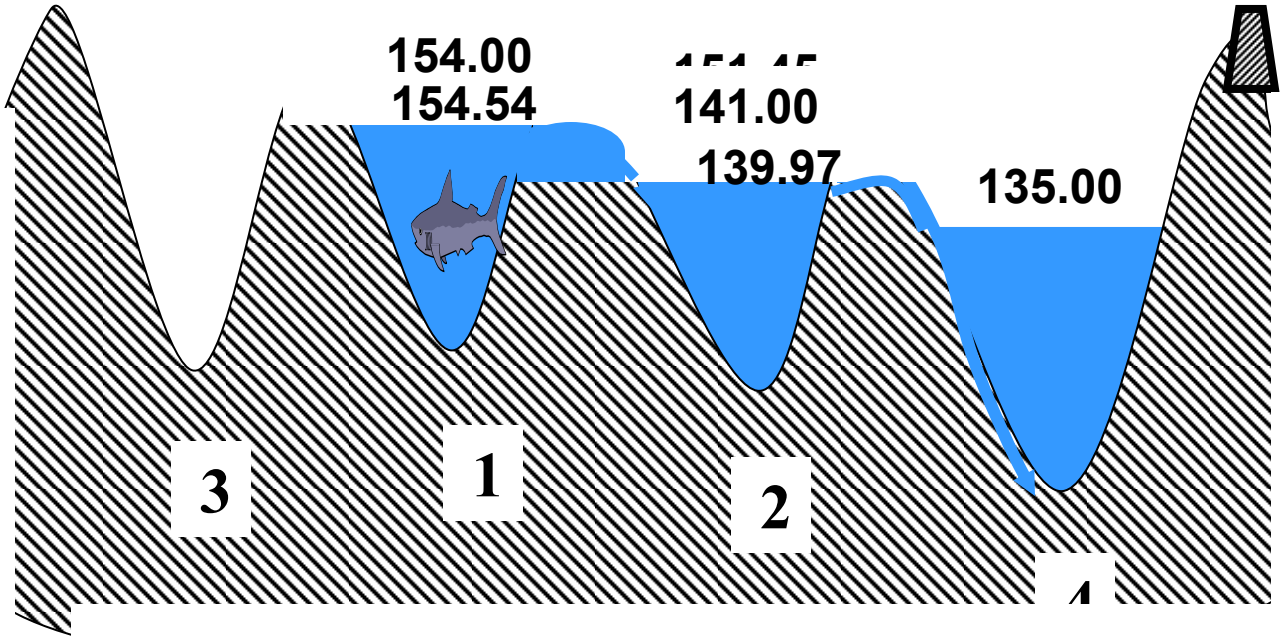
- منسوب منخفض (1) 156.23 وسعته 9293 م م3
- منسوب منخفض (2) 138.51 وسعته 3302 م م3
- فى نفس الوقت كان قد تم حفر قناة بين منخفضى (1) و(3) ولكن التصرفات التى مرت بها كانت ضئيلة.



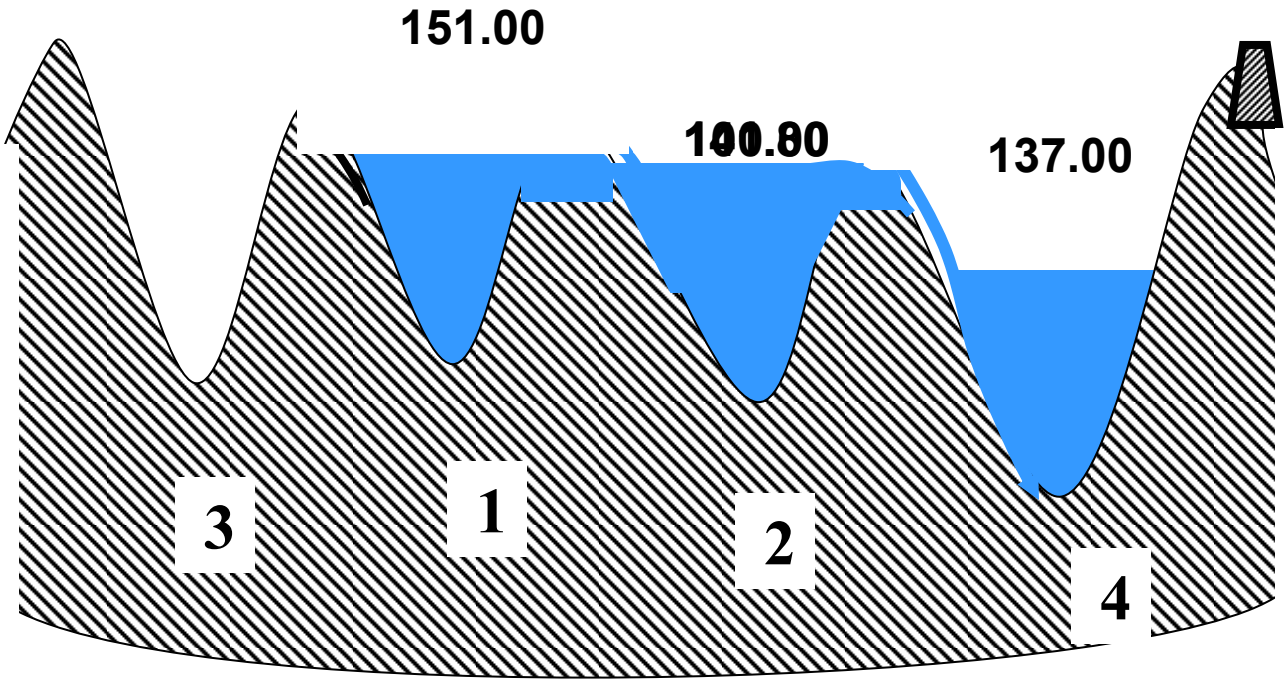
فيضان 1998\1999

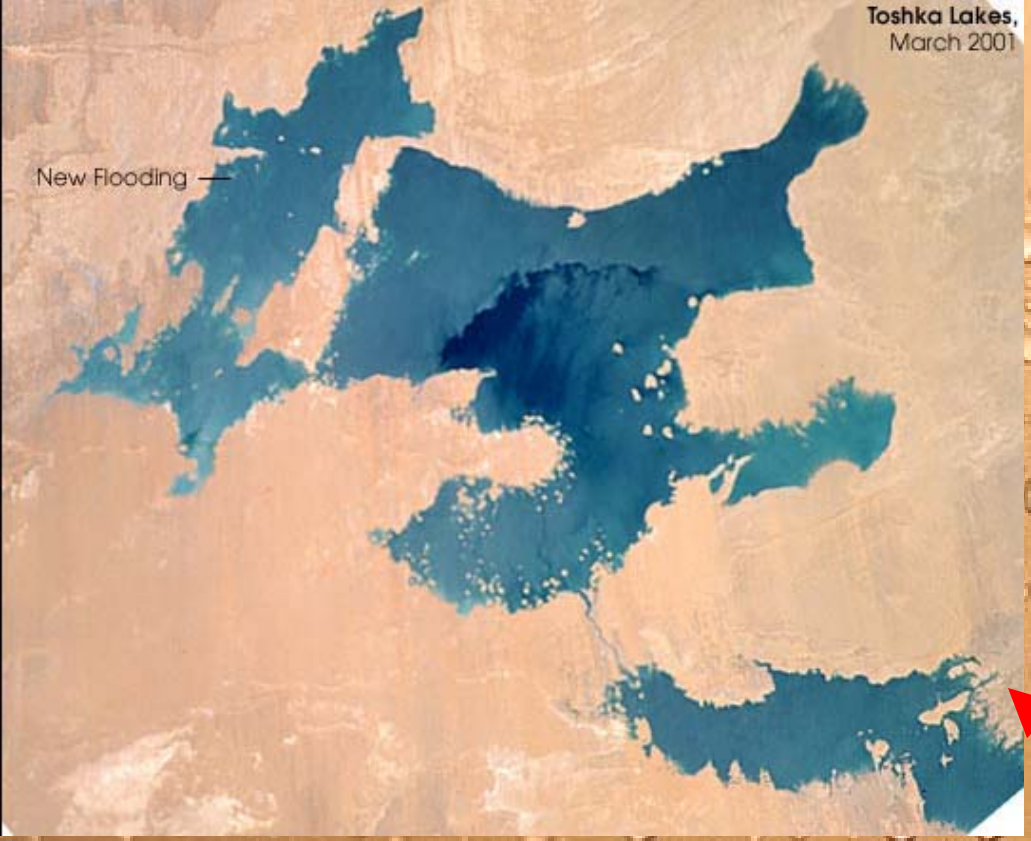


فيضان 2000\1999

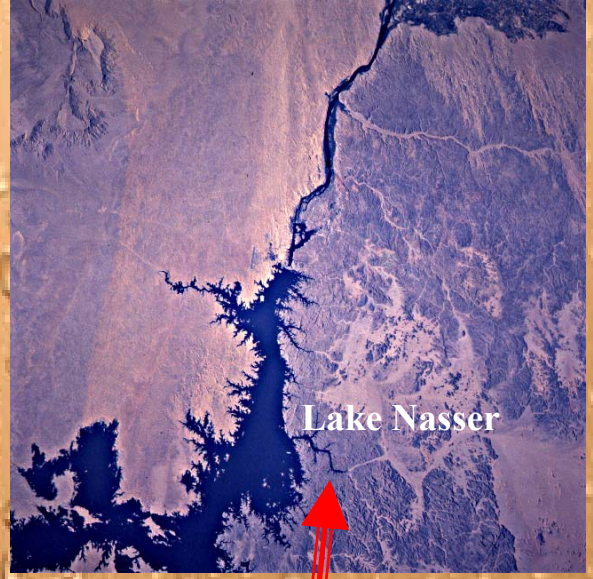


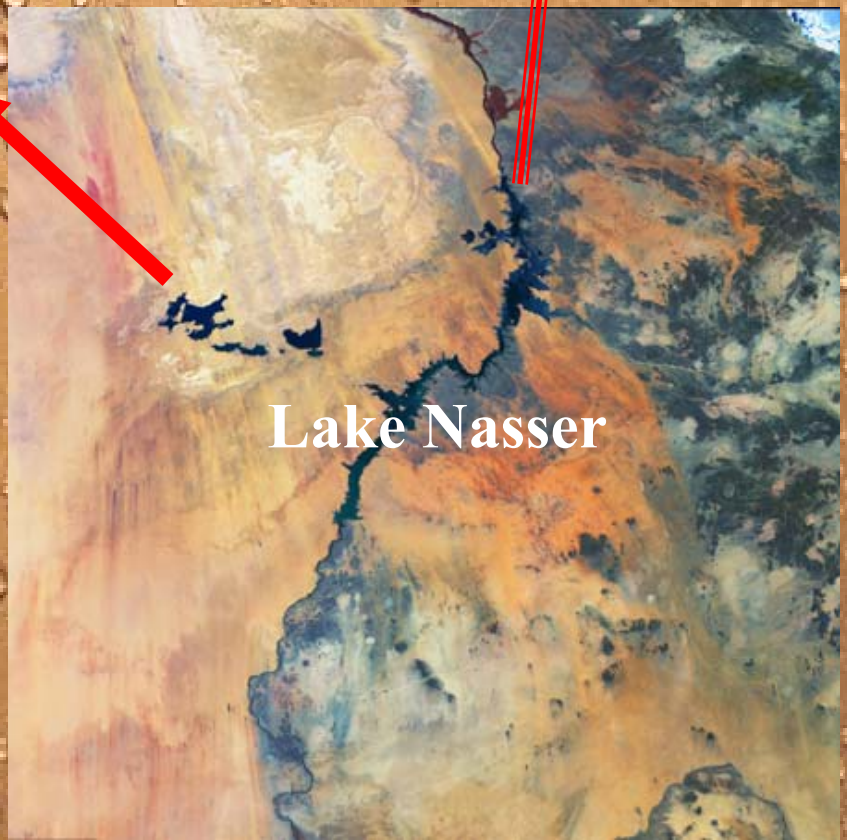
ثم بدأ بعد ذلك منسوب منخفض (1) فى التناقص حتى بلغ (153.00) يوم 2001\6\30بينما استمر منسوب منخفض (2) فى التزايد حتى بلغ (140.00) ومنسوب (4) حتى بلغ (137.00) تقريباً .

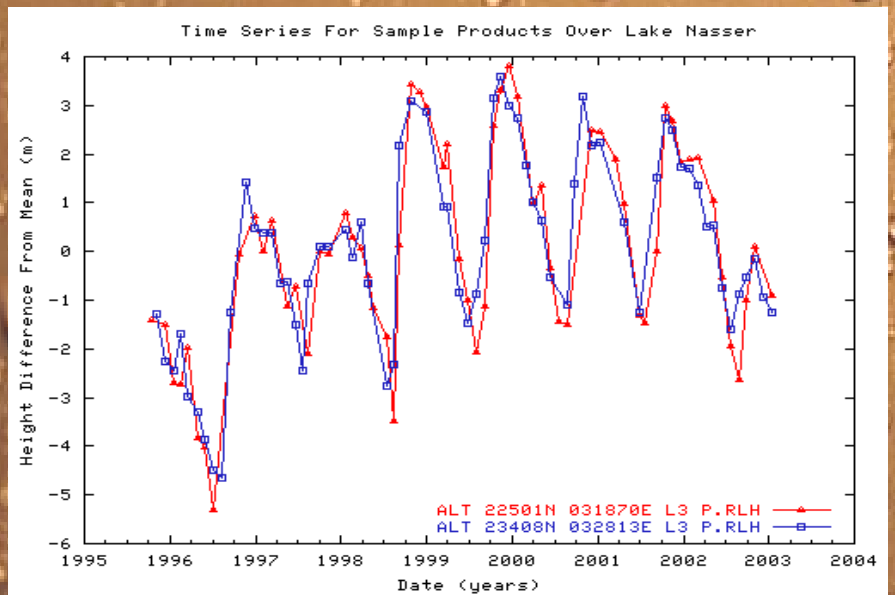



Toshka Lakes,
March 2001
New Flooding

TOSHKA

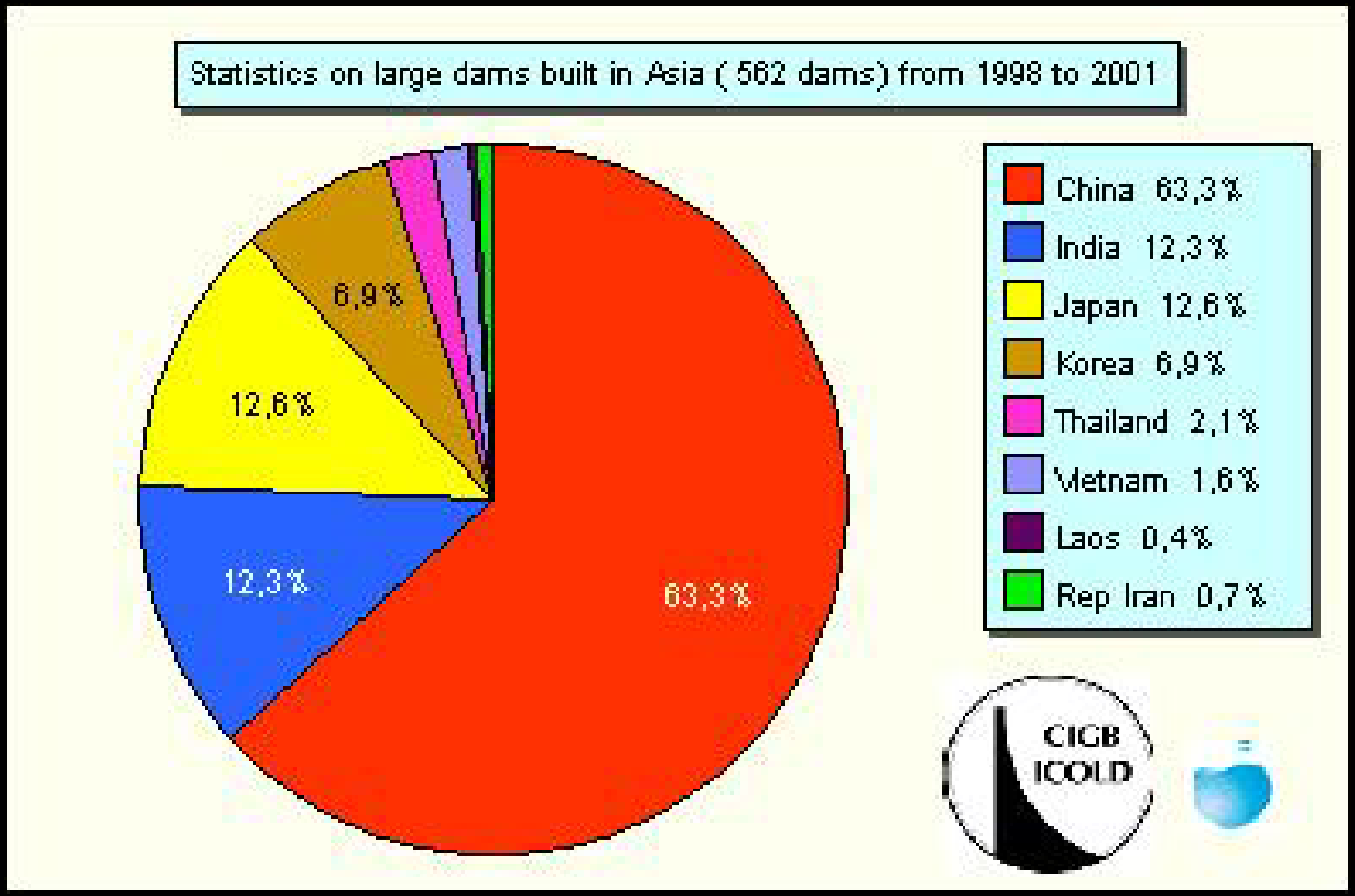

Lake Nasser


Lake Nasser

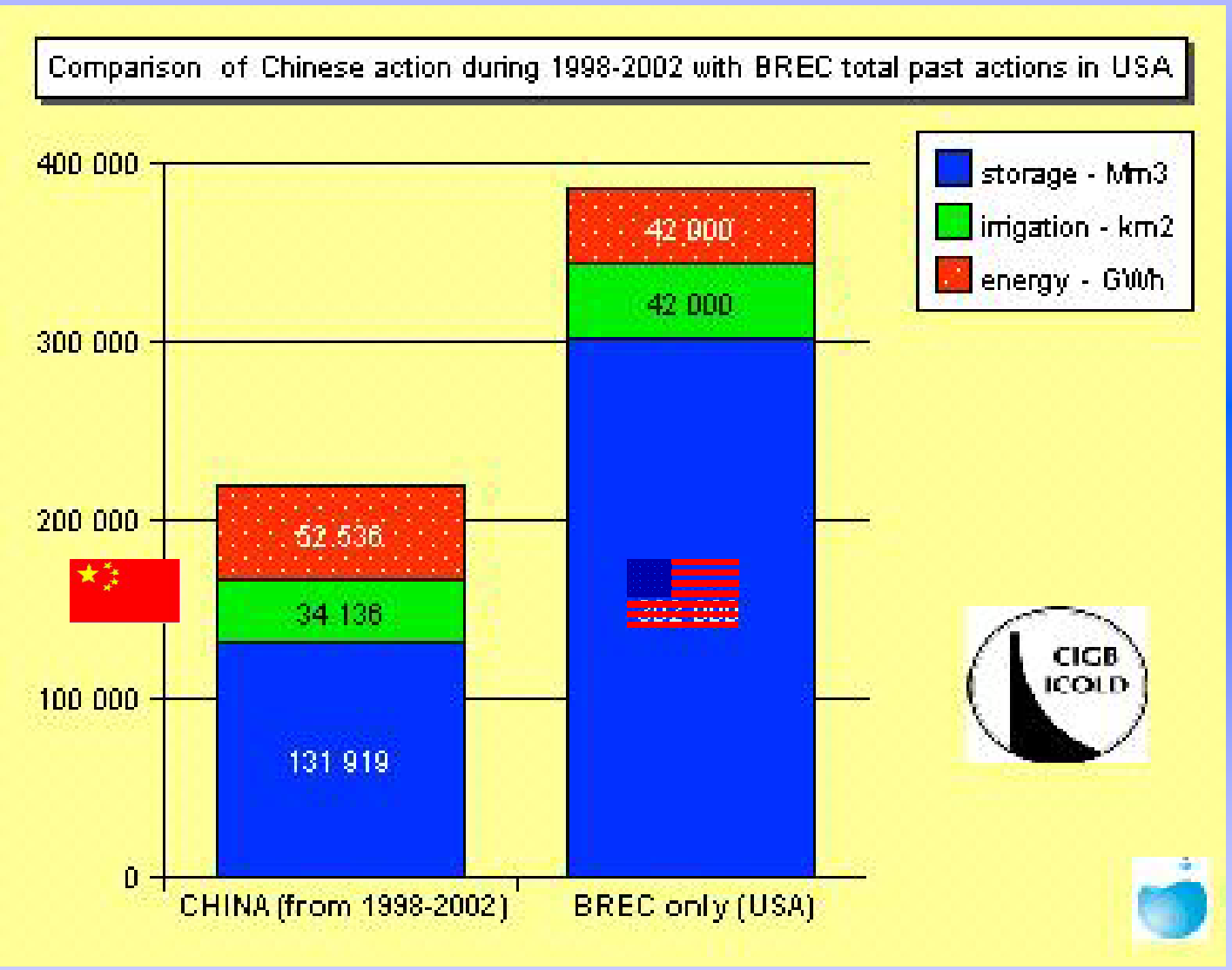

Time Series For Sample Products Over Lake Nasser
Height Difference From Mean (m)
4
3
2
1
0
-1
-2
-3
-4
-5
-6
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Date (years)
ALT 22501N 031870E L3 P.RLH
ALT 23408N 032813E L3 P.RLH

Three Gorges Dam

China : the leader for dam construction in ASIA



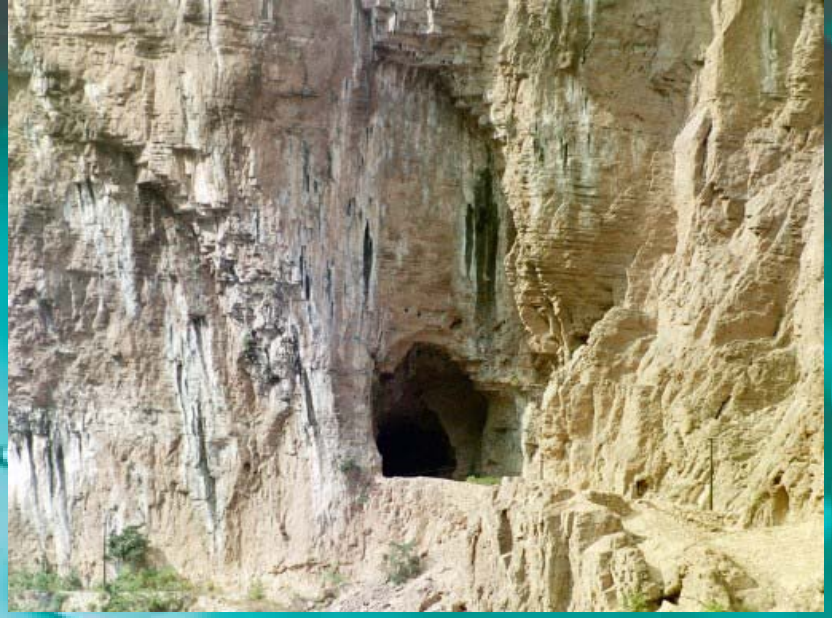
Case of China: Dynamic actions in five years from 1998 to 2002



- Comparison between actions in China from 1998 – 2002 to the USBR actions in USA.
- Data from US report R 33 to ICOLD Congress Beijing Q77t
- USBR action produced 60 % of the US nation's vegetables and 25 % of its fruits and nuts

In the next pictures we will see some of the poor quality rock found upstream. This is limestone perforated with many water passages.

The location selected for the new dam is ideal as it is founded on solid granite.



700 million tons of sedimentations per year pass through the river annually.

In the past 2,000 years, the Yangtze River has experienced 215 catastrophic floods.

Over 360 million people live within the watershed of the Yangtze River.

In 1998 flooding in the area expected to be controlled by the dam resulted in 4,000 dead, 14 million left homeless and $24 billion in economic losses.

Flood Control

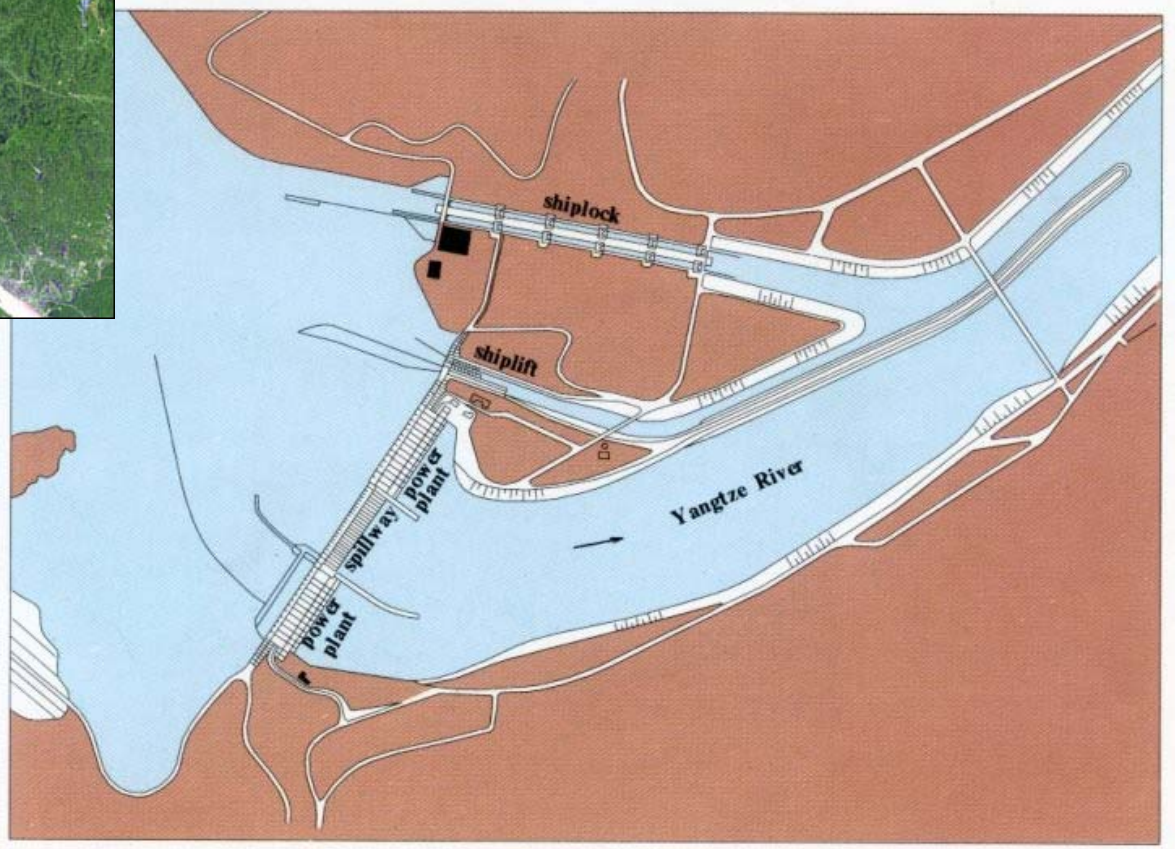
is a must for survival ..

there is no other option .

More than 50 years of modeling ,testing and simulation

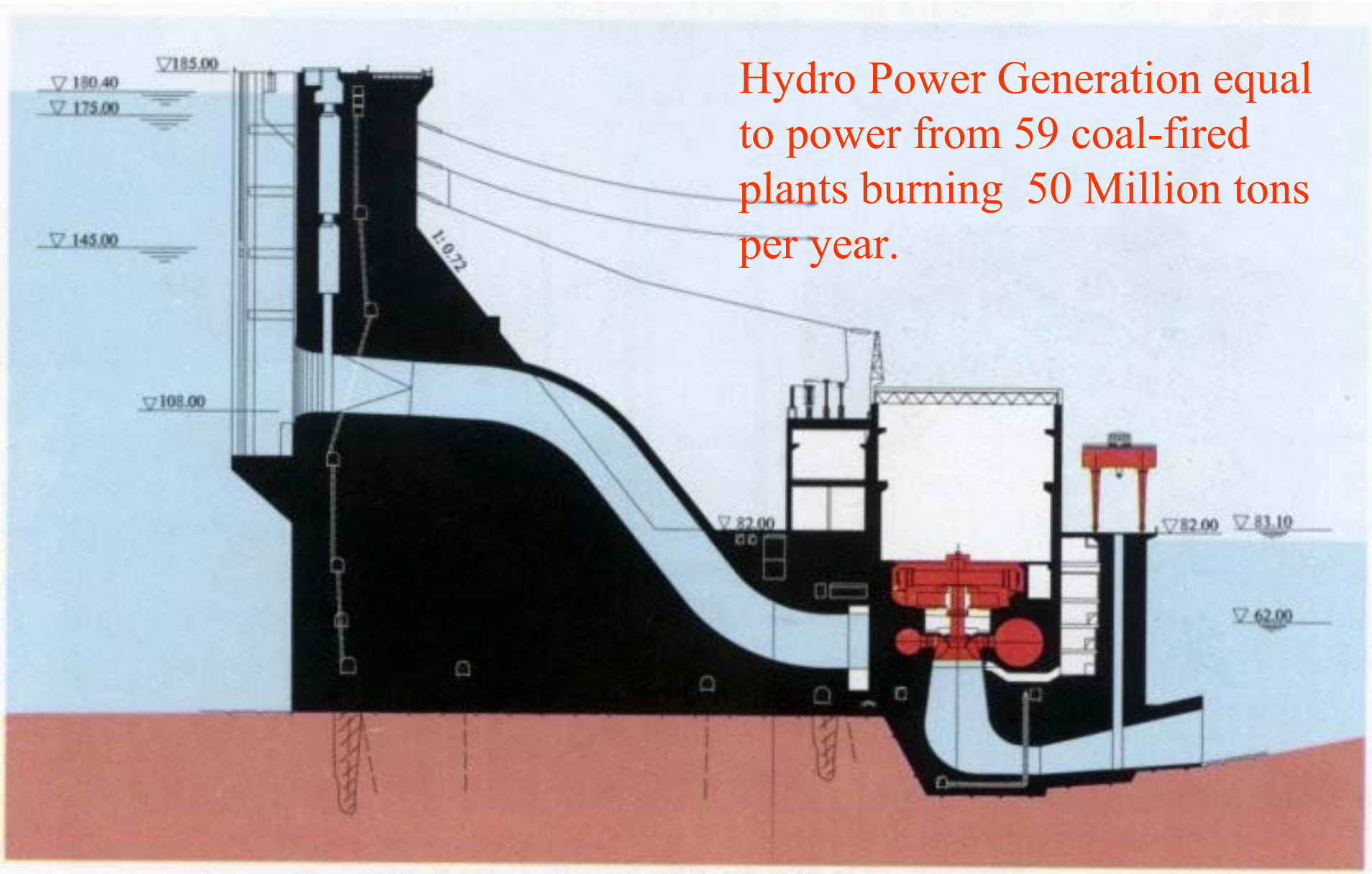
Decades of internal and external panel reviews

Excellent conditions for dam site



Layout of the Three Gorges Project

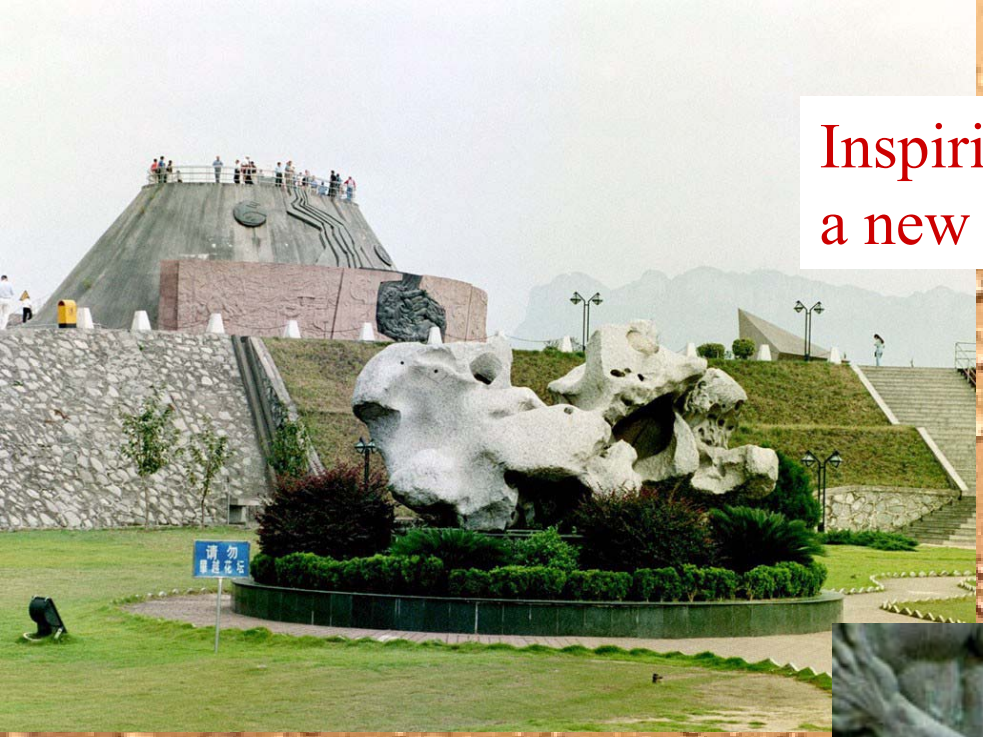
Sluices to remove the silt from the reservoir are at work



The Sketch of the Powerhouse Cross Section

The Concept and the Reality matched

Inspiring a new art



Inspiring a nation with 20% of world population

Top of the line technology

applications

Efficient, timely and skillful execution

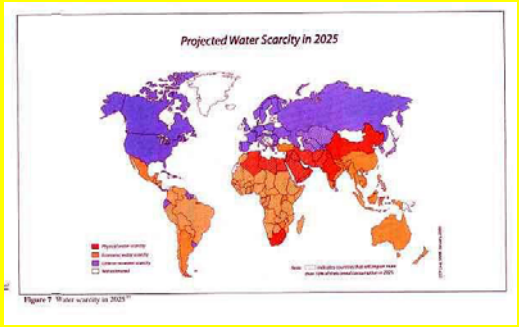
Preserve nature beauty

Save people lives and properties

Provide clean renewable energy to a thriving economy

saving the burning of 50 million tons of caol per year

SYNTHESIS : dams are nothing per se , just an important key : development is all !



Every 3.6 seconds, somebody starves to death.

- The demand of development is huge: now the developed world represents 1/7 of the pop; 5/7 are far below and living as in new « bantoustans », often destroyed by new external debts , pushed to new loans and bad deals , and 1/7 is just waiting for death.
- this is a new manifestation of past « apartheid » : as it was , it is unbearable , affecting human rights and dangereous for peace.

If it is true ,why are they ignoring the beautifull concepts of « virtual water » , as virtual food , medecine and life ?

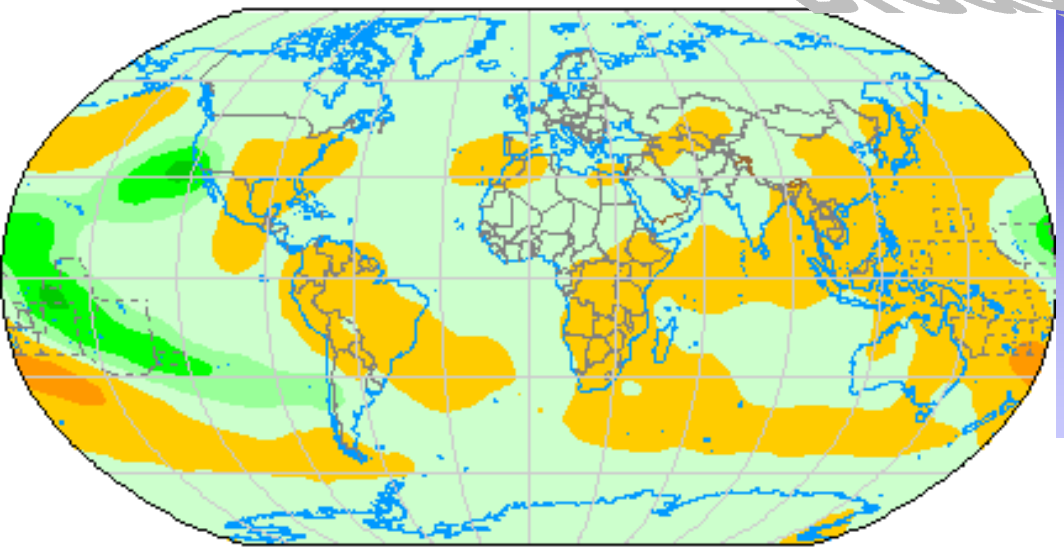
- <u>Meeting the needs as soon as possible is the leading objective :all the techniques considered as alternatives to dams should be together pursued and not seen as substitutes.</u>
- The dams are attacked through propaganda and are victims of systematic calumnies because they are sources of wealth and too efficient in world competition for power .

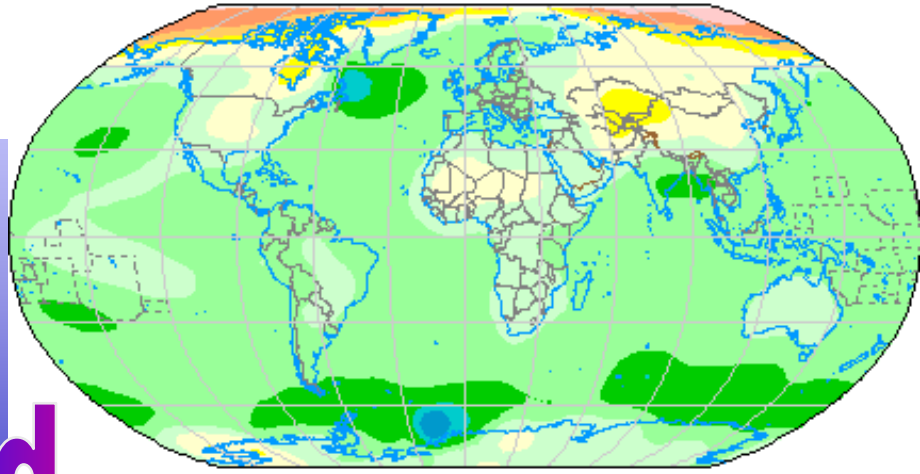
- The present trend of water storage increase with dam construction remains positive but too much concentrated in few countries , and globally too low.

Climatic Changes

- Largely Unknown factor
- Floods
- Drought

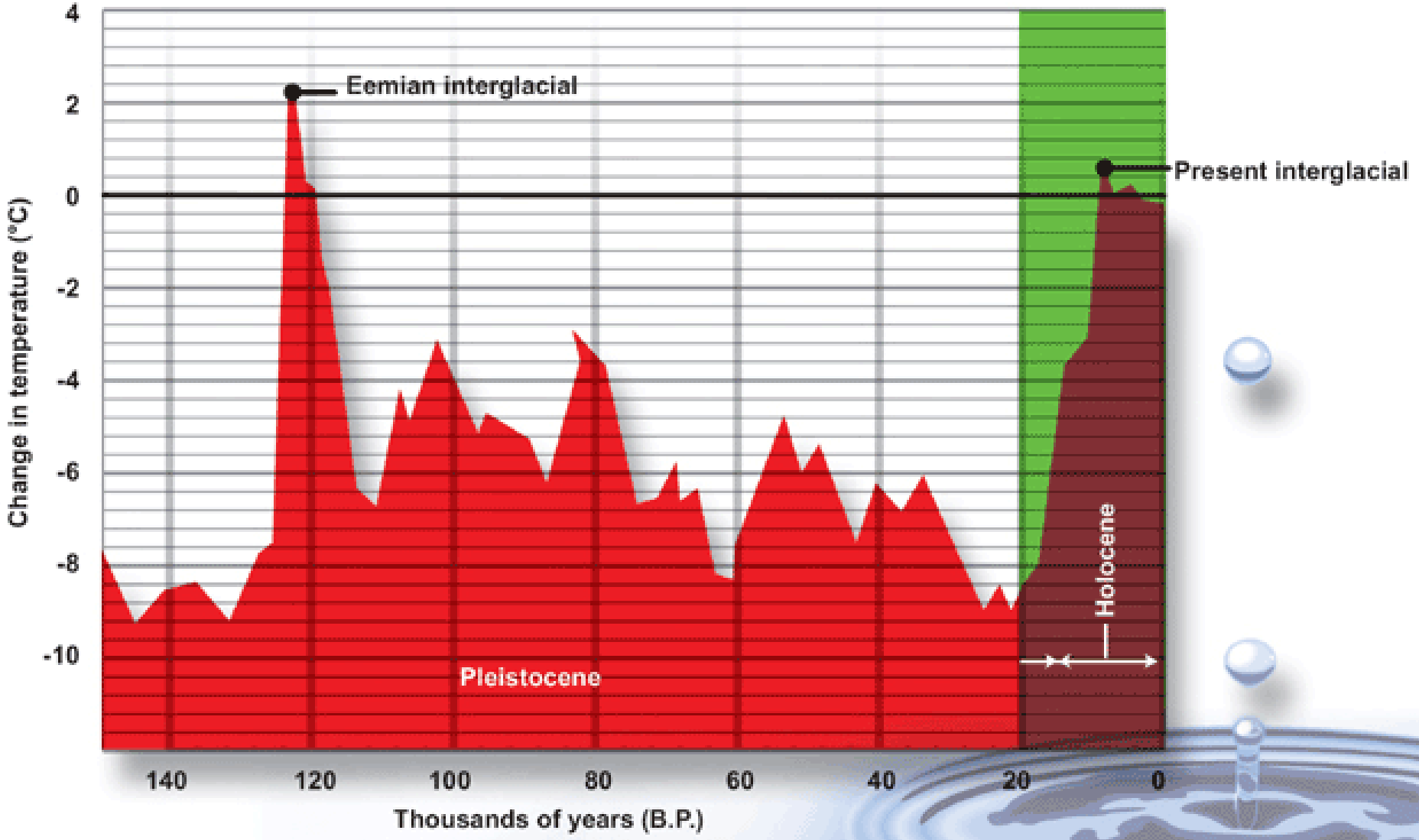
Drought and Flood





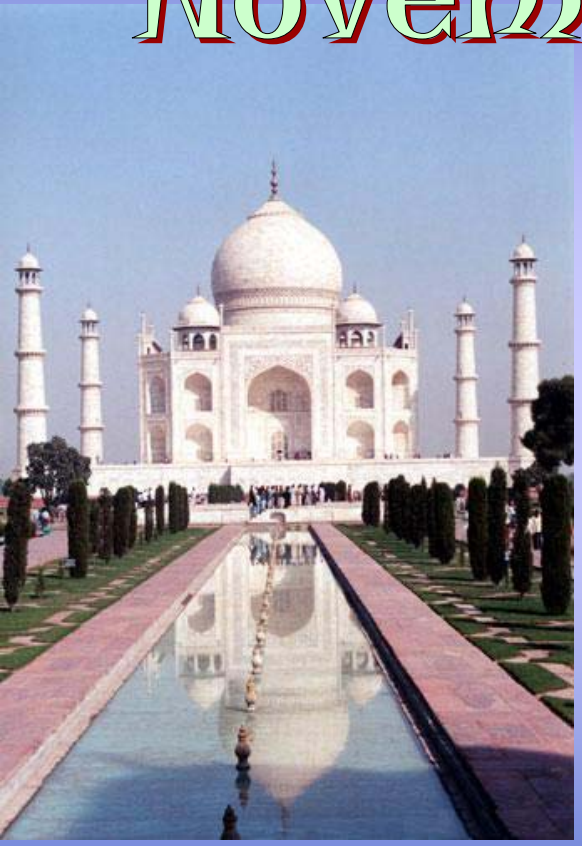
Hot and Cold

Global warming – change in temperature over time




The Blue Planet..keep it blue..
Wisely !

XII World Water Congress
New Delhi , India
November 22-25,2005



Water for Sustainable Development : Towards Innovative Solutions

http://www.worldwatercongress.org

E-mail: president-2@iwra.net

شكرا

SHUKRAN

MERCI

THANK YOU

FOR FUTURE GENERATIONS