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ABSTRACT

This activity is one of a series of 17 teacher-developed instructional activities for geography at the secondary-grade level described in SO 009 140. The activity investigates economic change in developing nations. It employs the "dialogue" approach. Given data about the Aswan High Dam in Egypt and about the environment of northeast Africa, students analyze the dam's contributions to the Egyptian economy and evaluate the societal and ecological problems that resulted from its construction. A chronological table of Aswan Dam developments, statistical data, a table of planned economic growth activity, and maps of Egypt and the Nile Conservation Works are provided. (DB)
ECONOMIC DEVELOPMENT: THE QUEST FOR MATERIAL WELL-BEING

by

Willis D. Veal
The University School
Florida State University
Tallahassee, Florida

The Aswan High Dam was heralded as a great blessing for Egypt. Although doing much of what it was designed for, it has brought with it many unforeseen societal and ecological problems.

"AFTER THE FLOOD: THE EAGLE AND THE BEAR AT ASWAN"

The north-east of Africa is a wilderness of mountain, rock and desert with the life of the people wholly dependent on the flow of the River Nile. Its 1,000-mile course through Egypt normally provides a six-mile-wide valley of greenness to Cairo; below it, the Nile broadens into its delta.

Of Egypt's 386,000 square miles, only 15,000 are endowed by nature to be easily habitable by man. For 6,000 years of recorded history, the River has had much to do with whether the people prospered or be impoverished, ate or went hungry. The Egyptians learned early in their history to adapt to the behavior of the river, and to use it for the greatest benefit of the most people. Partly for this purpose, the Egyptians developed one of the first systems of central government.

Although the Egyptians have continued to develop their ability to use the River to their advantage, there has been a continuous losing struggle to feed a growing population. It was clear that if Egypt was to move its population out of poverty, it would have to rely more heavily on industrialization than on agriculture. And, in order to do this, it was necessary to utilize its most valuable source of power, the Nile.

It was from this determination to develop a modern economy, that the Aswan High Dam Project resulted. This project has become one of the most complex social, political, and economic issues of our time.

It seemed from the beginning that every step of the project was controversial. The resettlement of the more than 106,000 Nubians in Egypt and the Sudan, conflicts over rights and benefits to the two countries, the costs, rivalries of communists and anti-communists, as well as internal politics, conflicting estimates on the efficacy of the dam, and the dam's functions and dysfunctions are all issues worthy of study.

In the exercise, via student-to-student and student-to-teacher dialogue, students will analyze, synthesize, and evaluate a relevant chronology leading to the completion of the High Dam; selected statistical data on the Aswan High Dam and Egypt; a diagrammatic representation of the northern part of the Nile as a hydrologic unity; and a graphic rendition of resettlement of Nubians made necessary by the creation of Lake Nasser upstream from the dam site.
Relevant Chronology Leading to the Completion of the Aswan High Dam

1902 - Completion of first Aswan.

1952 - The Free Officers seized power, exiled King Farouk, and committed themselves to raising the standard of living in Egypt.

1952 - Agrarian reform which limited land ownership to 200 acres per person.

1952 - Aswan High Dam given first priority to the extent it became known in some quarters as "Nasser's Pyramid."

1955 - (Sept.) U.S. and Britain offered loans contingent on World Bank approval of Aswan High Dam plans.

1956 - (February) Plans approved by World Bank - Loans approved for $200m. by World Bank, $55m. by the U.S. and $15m. by Britain.

1956 - (July) U.S. and Britain withdraw offer of support as a result of domestic opposition and the international situation, one aspect of which was the U.S. perception that Egypt was playing the U.S.S.R. against the West.

1956 - Suez Canal Nationalized.

1958 - Egypt and Syria unite to form United Arab Republic.

1959 - (Sept.) U.S.S.R. - U.A.R. contract to finance $325m. of the cost of Aswan High Dam signed.

1961 - Start of construction on the High Dam.

1961 - Syria withdraw from U.A.R.

1964 - (May) The last Flood - The Dam began storing water.

1967 - (June) - The Six-Day War - open hostilities with Israel.

1968 - First electric power generated.
Selected Statistical Data - Aswan Dam

Source: Economic Commission for Africa

Summary of Economic Data
United Arab Republic
1967-68, 1970, #45

TABLE I

Production

<table>
<thead>
<tr>
<th></th>
<th>1964</th>
<th>1968</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity (total installed capacity in thousand kw)</td>
<td>1,335</td>
<td>2,725</td>
<td>3,700</td>
</tr>
<tr>
<td>Electric Energy production (mwh)</td>
<td>5,106</td>
<td>6,735</td>
<td>12,000</td>
</tr>
<tr>
<td>Cultivated (million acres)</td>
<td>6.23</td>
<td>8.48</td>
<td></td>
</tr>
<tr>
<td>Sugar (t. metric tons)</td>
<td>4,890</td>
<td>6,300</td>
<td></td>
</tr>
<tr>
<td>Rice (t. metric tons)</td>
<td>2,036</td>
<td>2,586</td>
<td></td>
</tr>
<tr>
<td>Fish (t. metric tons)</td>
<td>135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Ammonium Nitrate (Fertilizer)(t. metric tons)</td>
<td>62</td>
<td>438</td>
<td>558</td>
</tr>
<tr>
<td>Rice (area)(1,000 acres)</td>
<td>1,000</td>
<td>1,253</td>
<td>1,467</td>
</tr>
</tbody>
</table>

Import-Export in million Egyptian pounds:
- Exported to U.S.A.: 7.8 6.21
- Imported from U.S.A.: 123.5 19.6
- Exported to U.S.S.R.: 42.0 52.8
- Imported from U.S.S.R.: 32.1 73.0

TABLE II

Changes in Land per Capita (1945-72)

<table>
<thead>
<tr>
<th></th>
<th>Cultivated area in million acres:</th>
<th>Population in millions:</th>
<th>Cultivated area in acres per capita:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>5.73</td>
<td>18.0</td>
<td>0.318</td>
</tr>
<tr>
<td>1952</td>
<td>5.67</td>
<td>21.5</td>
<td>0.264</td>
</tr>
<tr>
<td>1960</td>
<td>6.02</td>
<td>25.8</td>
<td>0.233</td>
</tr>
<tr>
<td>1965</td>
<td>6.23</td>
<td>29.8</td>
<td>0.209</td>
</tr>
<tr>
<td>1968</td>
<td>7.85</td>
<td>32.5</td>
<td>0.241</td>
</tr>
<tr>
<td>1972 (Projected)</td>
<td>8.48</td>
<td>36.6</td>
<td>0.232</td>
</tr>
</tbody>
</table>
TABLE III.

Planned Economic Growth Activities for 1961-65

<table>
<thead>
<tr>
<th>Investment (million Egyptian pounds)</th>
<th>Increase in Production (million Egyptian pounds)</th>
<th>Increase in Income (million Egyptian pounds)</th>
<th>Increase in Employment (1,000 persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, irrigation, drainage (Primarily the High Dam)</td>
<td>329</td>
<td>162</td>
<td>112</td>
</tr>
<tr>
<td>Electricity, industry and construction</td>
<td>578.7</td>
<td>727</td>
<td>266</td>
</tr>
<tr>
<td>Transport, communications and Suez Canal</td>
<td>271.8</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>Housing and utilities</td>
<td>223.4</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Services</td>
<td>111</td>
<td>143</td>
<td>102</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>1,696.9</strong></td>
<td><strong>1,076</strong></td>
<td><strong>513</strong></td>
</tr>
</tbody>
</table>


NUBIAN RESettlement

EGYPT

NILE

RED SEA

SUDAN

MEDITERRANEAN SEA

Lake Nasser

Aswan High Dam

Derr

Wadi Halfa

Kumote

Atoshe

Samne

Erett Metmar

Abu SimboL

Dakla

Abu Gade

Kallaba

Bell of Wadi

Nubian Resettlement

Ptolemaic

Cero

Suez Canal

Cairo

Somme

Kuorf

Ares Al

Lori Mom

DAN