

# **DISTRIBUTIONAL CONFLICT OVER BLUE NILE RIVER BASIN AND ITS IMPLICATION FOR INSTITUTIONAL CHANGE**

**BY**

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# INTRODUCTION

- **The Nile is one of the world's longest rivers, passing through 6,695 km.**
- **The drainage Basin of the Nile covers about 3.2 million square kms spread.**
- **The basin area is about 1/10 of the land area of Africa & is shared by 11 countries.**

# INTRODN..CONTD...



# INTROD..CONTD..

- The Basin has significant potential for:
  - Clean energy (hydropower) dev't & power trade;
  - Irrigated & rain-fed agri. prodn;
  - Preservation & use for eco-tourism
  - Drinking water, fisheries prodn, navigation, recreation & ecosystem maintenance..

# INTROD..CONTD

- In spite of all the importance of the Blue Nile Basin(BNB), the scientific understanding of the Nile has been limited due to:
- Insufficient basin-wide hydrologic, meteorological, climatic, socio-economic, ecosystem related data & info, & institutional capabilities.
- Asymmetry among the riparian countries in terms of water infrastructure dev't, institutional & technical capacity.
- These challenges & threats are by their very nature trans-boundary & **the impact that the river has had on the international politics of the region is evident.**

# Objective of the study

## **The General Objective**

- Is to examine the distributional conflict & its implication for institutional change among the 3 riparian countries over Blue Nile River.

## **The Specific Objectives**

- To analyze the property rights change about the utilization of Blue Nile River Basin over time.
- To investigate the driving forces behind conflicts & cooperation regarding issues of water distrib. among 3 countries.

## 1.3. Theoretical and Conceptual Framework

- Contemporary theoretical debates on PR change are dominated by 2 competing schools.
- Each side identifies different factors as critically responsible for the change of PR.



# THEORY..CONTD..

## The economic school

- regards potential collective efficiency gains as the key factor pushing for PR change.
- view PR evolution as a response to changes of relative prices, via the opening of new markets, popn change, technological innovation.
- emphasizing the “**demand side**” of institutional change (i.e., gains from the change).

## The distributional school

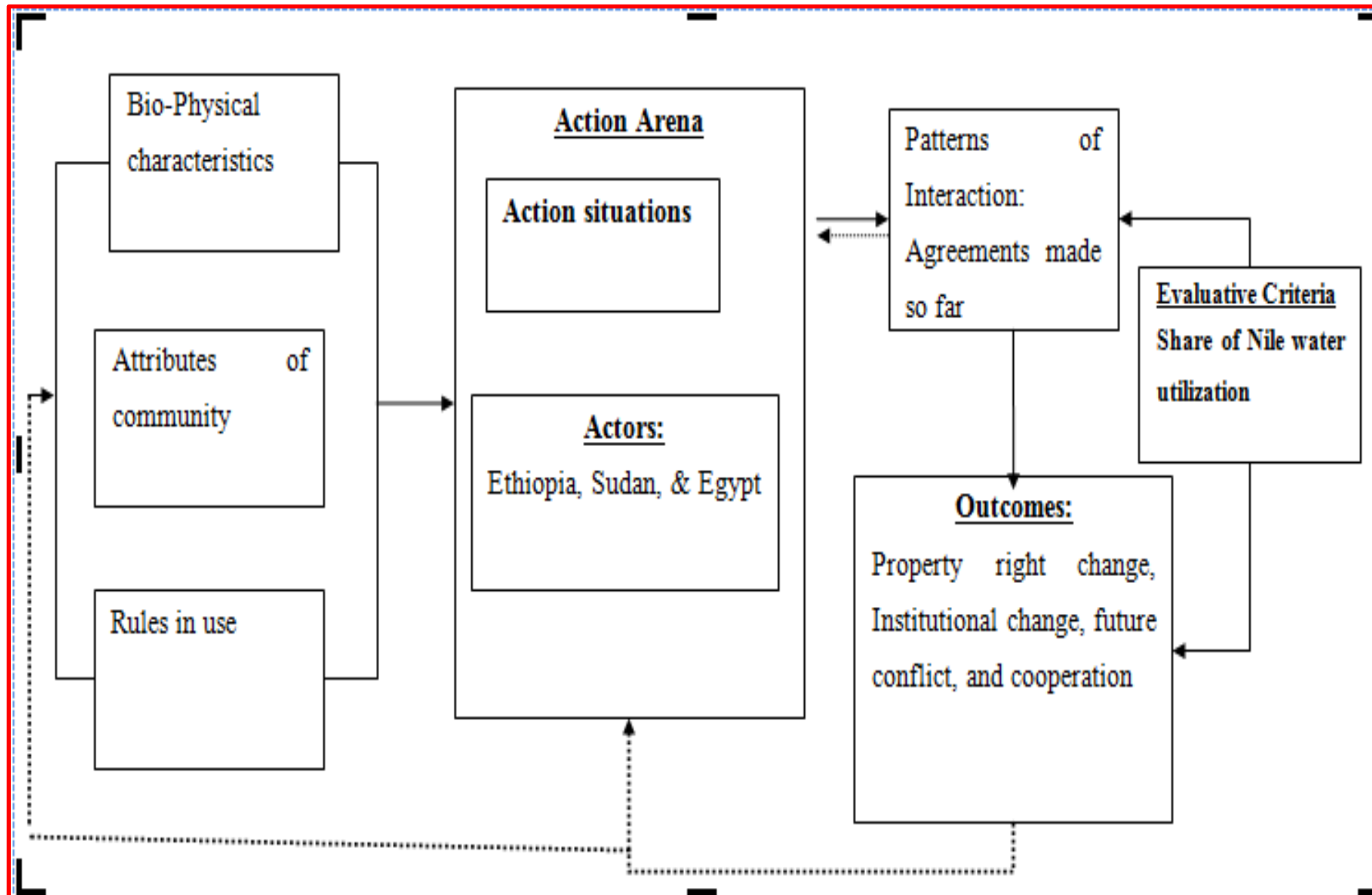
- stresses **distrib. Inequality** as the determinant force for the evolution of PR.
- Potential improv't in PR cannot be materialized when distr. inequality is involved.
- Distrib. conflicts inherent in any PR arrangement, can block or critically constrain the institutions that can be adopted (Libcap, 1998).

# THEORY..CONTD..

## Distributional school(contd..)

- Some get better off(winners); others worse off(losers) b/c of PR change.
- The losers are expected to take measures to block PR change if such measures are not so costly to them as the PR change.
- factors such as distrib. inequality on the “supply side” can block PR change.
- **stresses that distrib. disadva. created by PR change may induce potential losers to take efforts to impede it (Libecap , 1989).**
- **However, it is equally likely that distrb. advantage may induce winners to take steps to speed up & facilitate the change of PR.**
- **stresses the role of winners: “the main goal of those who develop institutional rules is to gain strategic advantage vis-à-vis other actors (Knight ,1992).**

# Conceptual Framework.CONTD..



## Conceptual..contd..

- How social, economic, legal, & political factors exert their influence on the formation of new equilibrium that shed light on the complicated process of restructuring PR over fair utilization of Blue Nile River.
- Focus on how economic actors come to grips with their sometimes conflicting & sometimes converging interests in constructing new PR over utilization of the common river.

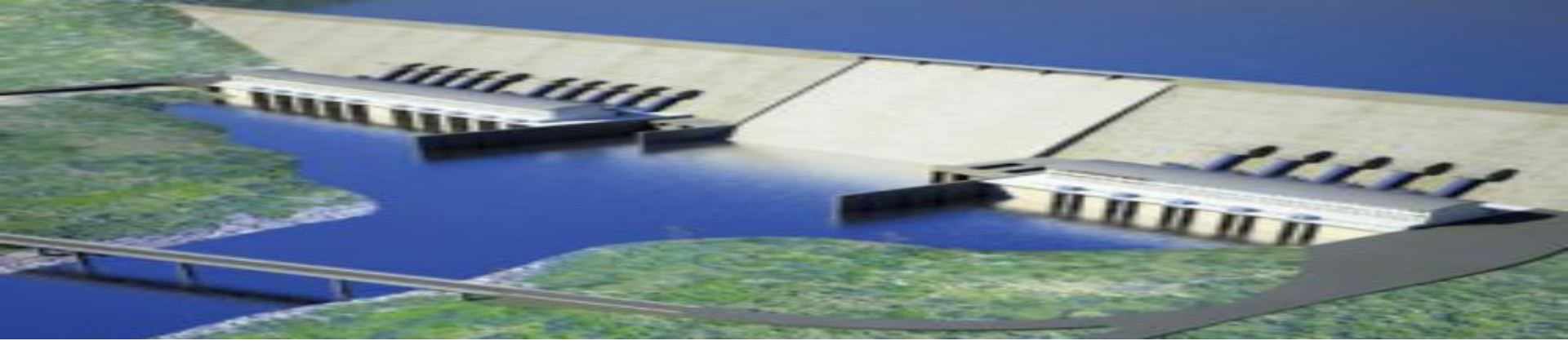
## **2. METHODOLOGY OF THE STUDY**

### **2.1. Data sources and Method of Collection**

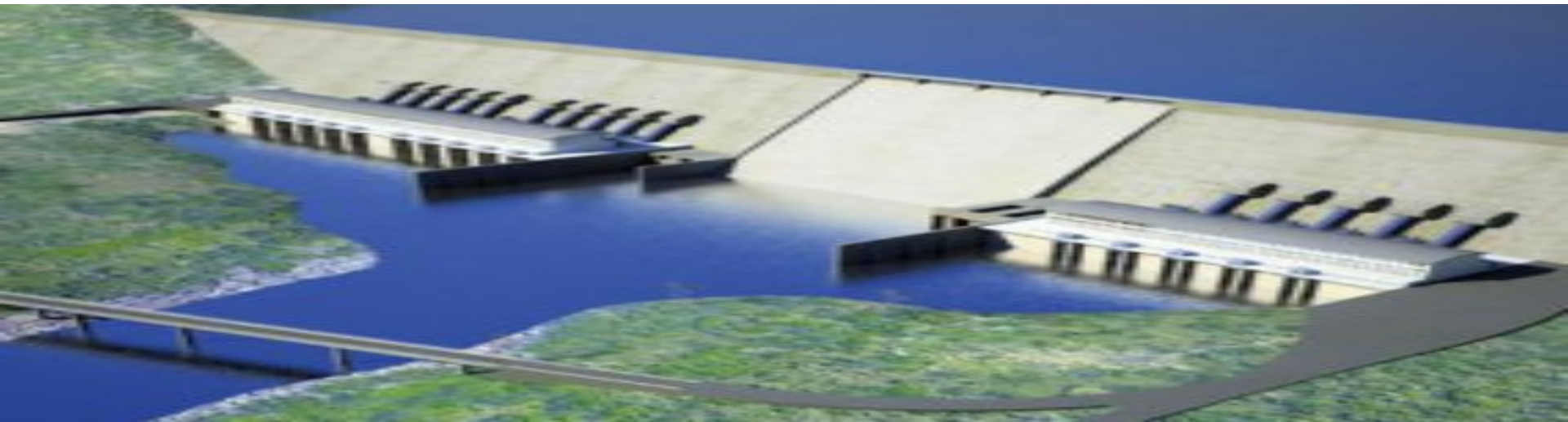
- Secondary data sources from d/nt concerned bodies & agencies were gathered.
- Published & unpublished documents like statistical figures, news papers, media and reports related to the subject matter from FAO, World Bank, Ministry of water resources were critically reviewed.

### **2.2. Data Analysis and Presentation**

- In order to analyze the past and the current institutional interactions of actors (Ethiopia, Egypt and Sudan) about Blue Nile water sharing & see if any PR change exists over utilization of the common river, the Institutional Analysis Development Framework shown before was used.



# RESULTS AND DISCUSSION



# Population and water withdrawal of the 3 countries

| Country                   | Popon.<br>2015 E<br>(000s) | Water withdrawal in<br>(m <sup>3</sup> /year)      |  |   | Total H2O<br>withdrawal                 | Total water<br>withdrawal<br>per capita<br>per year |
|---------------------------|----------------------------|--|--|---|---|---|
|                           |                            | Agriculture  | Municipality                               | Industry                                    |   |   |
| Ethiopia<br>Year<br>% age | 99,391<br>(2015<br>E)      | 5.2 *10 <sup>9</sup><br>(2002 E)<br><b>93.63 %</b> | 0.05*10 <sup>9</sup><br>(2005 E)<br>5.99 % | 0.81*10 <sup>9</sup><br>(2005 E)<br>0.37 %  | <b>5.558*10<sup>9</sup></b><br>(2002 E) | <b>78.96</b><br>m <sup>3</sup> /yr                  |
| Egypt<br>Year<br>%age     | 91,508<br>(2015<br>E)      | 67*10 <sup>9</sup><br>(2010 E)<br><b>86 %</b>      | 9*10 <sup>9</sup><br>(2010 E)<br>11.54 %   | 2*10 <sup>9</sup><br>(2000 E)<br>2.6 %      | <b>78*10<sup>9</sup></b><br>(2010 E)    | <b>910.6</b><br>m <sup>3</sup> /yr                  |
| Sudan<br>Year<br>%age     | 40,235<br>(2015<br>E)      | 25.9*10 <sup>9</sup><br>(2011 E)<br><b>96.2 %</b>  | 0.075*10 <sup>9</sup><br>(2011 E)<br>3.5 % | 0.995*10 <sup>9</sup><br>(2011 E)<br>0.28 % | <b>26.94*10<sup>9</sup></b><br>(2011 E) | <b>714.1</b><br>m <sup>3</sup> /yr                  |

**Source: (FAOSTAT, 2015).**

## **Agreed and conflicting issues over utilization of Nile River(PR change → Institutional change )**

- Pre Colonial Agreements
- Colonial Agreements
- Post colonial Agreements
- The Blue Nile basin features significant conflict over access and rights to the Nile water resources among the 3 riparian countries(ETHIOPIA, SUDAN & EGYPT)
- Most of the existing agreements were reached between the colonial powers, or b/n Egypt & the colonial powers.



| Year | Parties                                    | Agreed Issues  | Conflicting Issues  |
|------|--|--|---|
| 1704 | Ethiopia and Egypt                         |  | King of Ethiopia threatens Egyptian Pasha to cut off the Nile.                      |
| 1902 | Britain and Ethiopia                       | Agreement was signed to limit Ethiopian intervention with the Nile waters.   |   |
| 1929 | Britain and (newly Nile independent) Egypt | Nile Water Treaty: Britain provided Egypt with the monopoly over the river, allocating only 4 billion cubic meters to Sudan.         | <b>48 BCM- Egypt</b><br><b>4 BCM-Sudan</b>  |
| 1959 | Egypt and Sudan                            | Nile Water Treaty signed when pro-Egyptian government elected in Sudan. Water Agreement on “the full utilization of the Nile water.” | <b>55.5 BCM-EGYPT</b><br><b>18.5 BCM-SUDAN</b><br><b>10 BCM-LOST --EVAPORATION</b>  |
| 1978 | Egypt and Ethiopia                         |  | Ethiopia’s proposed construction of dams on the headwaters of the Blue              |
| 1979 | Egypt and Ethiopia                         |  | Anwar Sadat declared: “The only matter that could take Egypt to war again is water” |

| Year | Parties   | Agreed Issues  | Conflicting Issues   |
|------|---|--|--|
| 1992 | The Technical Cooperation Committee for the Promotion of the Dev't & Env'tal Protection of the basin (TECCONILE) was established.   |  |  |
| 1994 | Egypt & Sudan   |  | Egypt planned and then cancelled an air raid on Khartoum, where a dam was being built. |
| 1995 | Egypt & Sudan   |  | Increased tensions over the attempted assassination of President Mubarak.              |
| 1999 | Water ministers of nine countries established <b>NBI</b>  | To achieve sustainable socio-economic dev't through the equitable utilization of, & benefit from, the common NB water resources.                 |  |
| 2001 | Egypt, Sudan, & Ethiopia established the Eastern Nile Subsidiary Action Plan (ENSAP), coordinating their efforts to execute joint & independent irrigation, hydroelectric power, & water mgt projects in the basin.                             |  |  |
| 2010 | 6 upstream (NBI) members signed the Cooperative Framework Agreement (CFA), 4 members ratified the Entebbe Agreement:to establish principles, rights and obligations to ensure long-term & sustainable mgmt and dev't of the shared Nile waters. |  |  |
| 2011 | Ethiopia has launched the construction of the Grand Ethiopian Renaissance Dam, GERD. <b>6,000MW</b> , create a lake with a volume of about <b>74 billion cubic meters</b>   |  |  |
| 2015 | Egypt, Ethiopia & Sudan   | Signed " <b>Declaration of Principles</b> " to put an end to a four-year dispute over Nile water sharing arrangements among Nile Basin countries |  |

# Result..contd

- The 4<sup>th</sup> principle of the March 2015 declaration i.e. ***the Principle of fair and appropriate use***, the 3 countries agreed ***to use their common water sources in their provinces in a fair & appropriate manner.***
- The 9<sup>th</sup> principle of declaration i.e. the ***“principle of the sovereignty, unity and territorial integrity of the State”***
- The 3 countries agreed to cooperate on the basis of ***equal sovereignty, unity & territorial integrity*** of the state, mutual benefit & good will, in order to better use & protect the River Nile.
- This could be considered a big progress for PR change over the use of Blue Nile River.

# Two contrasting views

## Future cooperation

- views water resources as an arena for future cooperation

(Arsano, 2007; Elise Bolding, 1993)

- No state boundary, no barbed wire, no wall can stop water flowing along its natural course.

## Future conflict

- views water resources as an arena for future conflict.

(J. star, 1991; Fakenmark, 1992; Gelak, 1993; Jorgakos, undated)

# Results continued

## Verbal conflicts B/n Ethiopia and Egypt

- “*Egypt is the gift of the Nile.*”...Herodutus in 5<sup>th</sup> Century B.C.E
- “*Without Nile, there would have been no food, no people, no state, & no monuments*”...in Egypt and Sudan
- Boutros Boutros-Ghali (1988), the former secretary-general of the UN, has predicted that “*the next war in the region will be over water*”
- BBC(2000) indicated that “*In the next 25 years water scarcity will be the main source of conflict*”.

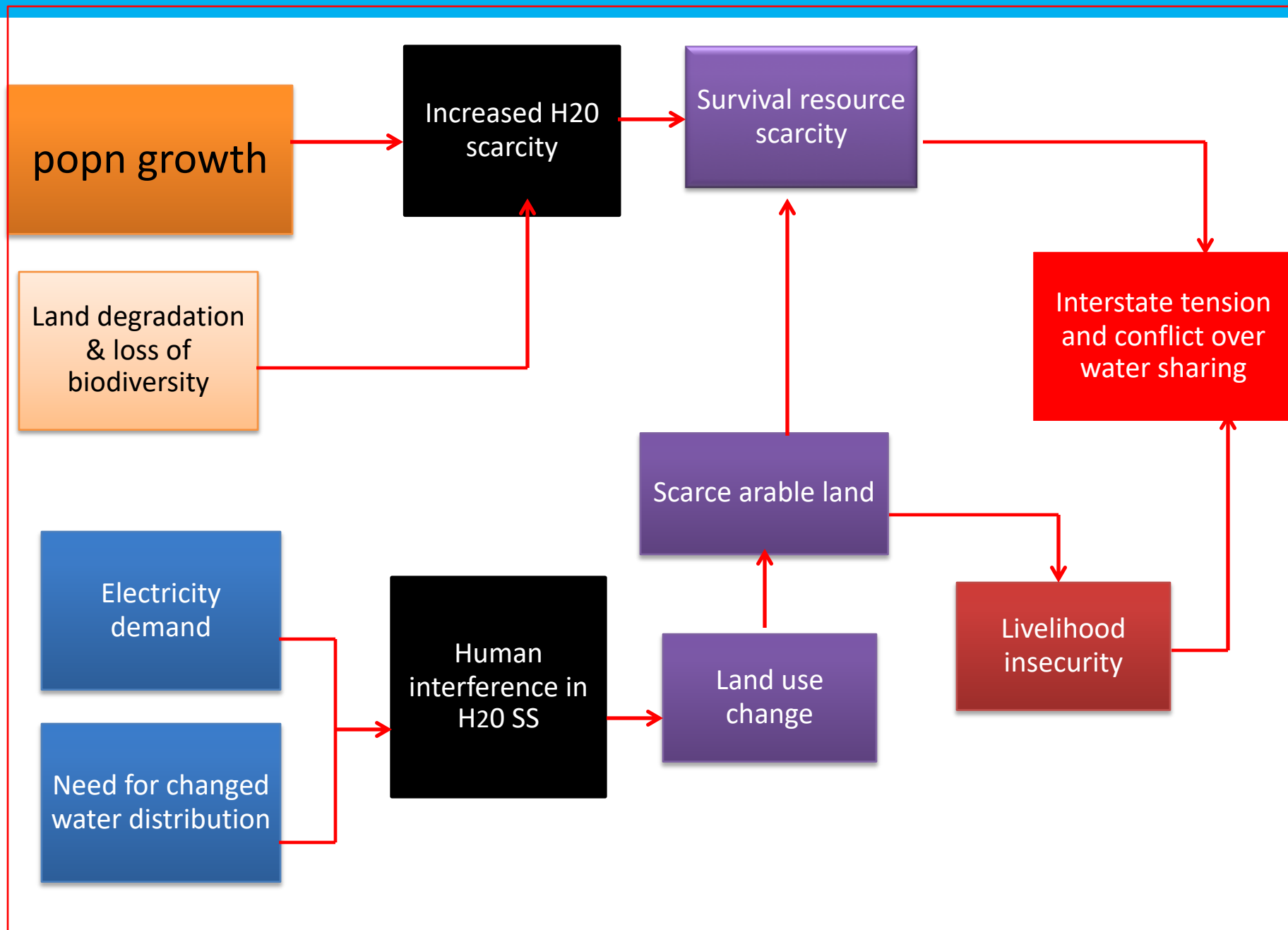
# Contd...

- In 2000, the **American congress** also indicated water distrib. conflict will be the major factor that would threaten Sub-Saharan African countries especially EGYPT, SUDAN & ETHIOPIA.
- Former Egyptian president **Morsi** warned that ***“if Egypt’s share of the Nile’s water diminishes by one drop, that ‘blood’ would be the alternative”***
- Ethiopian PM Meles Zenawi told Algezira: ***“While Egypt is taking the Nile water to transform the Sahara Desert into something green, we in Ethiopia—who are the source of 86% of that water—are denied the possibility of using it to feed ourselves.”***

## Contd...

- To the contrary, shared waters can better serve as catalyst for cooperation rather than conflict(Arsano, 2007).
- Arsano does not see any risk of "**water wars**" within and b/n states in the Nile Basin.
- Yet, the riparian countries still did not established a confidence and trust in one or another way to fully cooperate.

# Future Pressures on the Nile's Water Flow





# CONCLUSIONS AND RECOMMENDATION

- There is no integrated plan for optimum use & dev't of the waters of this river, which could benefit the 3 countries.
- This study believes that In order to satisfy the future water demands of the economy & the popn growth, utilization of our common resource i.e **Blue Nile River** will be **intensified** and hence;
- One could expect that **future conflicts over water sharing** are highly probable.
- Moreover, we have to make sure that new rules of PRs over the fair & equitable use of Blue Nile River will serve the interests of those with **strong bargaining power**.
- AS Libecap claimed **distributional inequality** can impede PR change also sheds light on the role of distrib. inequality in PRs transformation over the fair use of Blue Nile River among the 3 countries.

# Conclu and recomm..contd

- Since water crisis in the Blue Nile River Basin is predictable;
- Strengthening **regional integration** & the credible commitment in order to promote mutually beneficial inter-dependencies is very crucial.
- This study suggests that Ethiopia should exert maximum effort in convincing countries to ratify the Entebbe Agreement (CFA) b/c any continued delays in negotiations will lead to further degradation of relations between the 3 states.

