

“Fierce competition for freshwater may well become a source of conflict and wars in the future” – Kofi Annan, 2001.

How to Resolve Transboundary River Water Dispute & Benefit Sharing Opportunities in the GBM Basin

PhD Research by

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How to Resolve Transboundary River Water Dispute

Introduction

- There are 260 transboundary rivers in the world
- Traversing around 145 countries
- These rivers are cause of conflict
 - Arab and Israel
 - Iran and Iraq
 - India and Pakistan
 - India and China
 - America and Mexico
 - Nile, Mekong, Amu Daria

How to Resolve Transboundary River Water Dispute

Literature Review of Dispute Resolution Methods

- What are the dispute resolution methods
- What factors influence water agreement
- Literature was searched with some key words
- Selected the review articles that
 - evaluated the basin management
 - analyzed the water sharing treaty,
 - authors opinion about the treaty or basin management
- 50 articles were selected

Systematic Review of Dispute Resolution Methods

Keys to success

- Political will (faith, co-operation, good relation)
- Institutional arrangement or river basin organization such as
 - Joint river commission or
 - Basin Management Authority/committee to
 - monitor,
 - joint survey and
 - information exchange
- Mediation by third party,
- Integrated river basin management
- Benefit sharing

Example of Dispute Resolution Methods

Key to success	Example
Political will (faith, co-operation, good relation)	Rivers between USA-Canada, The Rhyne, The Danube River
Institutional arrangement or River basin organization	International Boundary and Water Commission (IBWC) between USA-Mexico, International Joint Commission (IJC) between USA-Canada, International Commission for the Protection of the Rhine
Mediation by third party	The Mekong- UNDP, ADB; The Indus- World bank The Jordan-USA,UK, UN
Integrated river basin management	The Rhyne, The Nile,
Benefit sharing	The Senegal, The Rhyne, and many more

Systematic Review of Dispute Resolution Methods

Causes for failure

- Non-cooperation (unfriendly relation),
- Disregards to international laws,
- Water hegemony or imbalance of military power,
- Absence of proper institution, mediator or benefit sharing approach

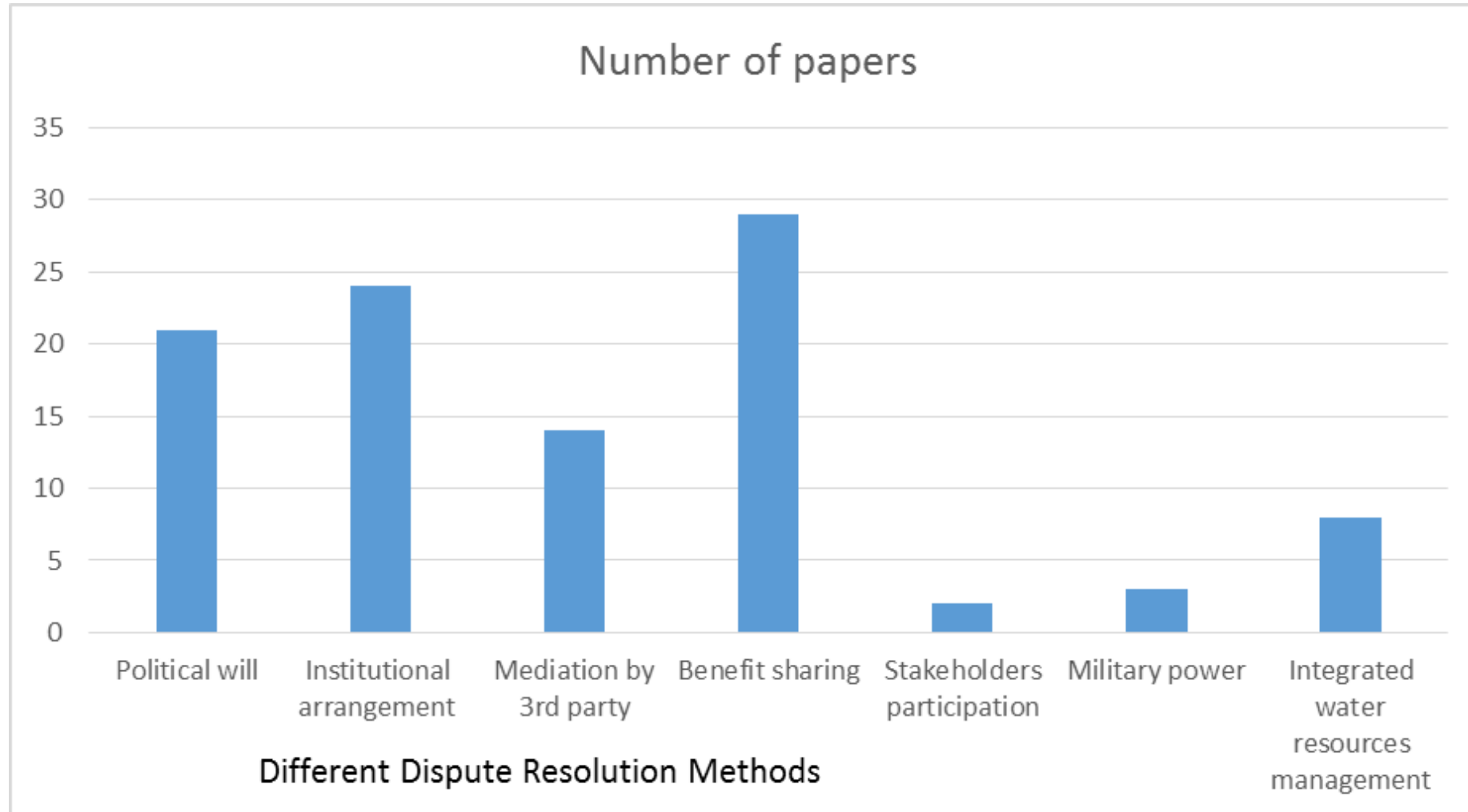


Systematic Review of Dispute Resolution Methods

Factors for failure	Example
Non-cooperation (unfriendly relation)	The Ganges-Brahmaputra-Meghna , The Indus
Disregards to international laws,	Shatt al-Arab River between Iraq and Iran
Water hegemony or imbalance of military power,	The Teesta between India and Bangladesh
Absence of mediator	The Euphrates-Tigris and many more
Integrated river basin management	The Mekong

Systematic Review of Dispute Resolution Methods


Result (Most efficient method is benefit sharing)



Benefit sharing

- It means the basin states will share not only water but also various benefits from the river
 - ✓ sharing environmental benefits, such as improved ecology, water quality
 - ✓ Sharing direct benefits from water such as agriculture, hydropower
 - ✓ Use the river for other purpose like border river acts as border, no border security is required
 - ✓ Sharing benefit beyond the river, ie the river can act as catalyst for trade
- It is win-win situation
- It optimizes benefits
- Everyone is better off
- Nobody is worse off

Systematic Review of Dispute Resolution Methods

Benefit sharing	Example
Salmon returned to the Rhyne in 2000	By combined initiatives of the co-riparians
Columbia River between the USA and Canada	USA constructed 4 dams in Canada to reduce flood in the USA
<p>The Manantali dam, on the Senegal, 300 km inside Mali (740 GWh per year)</p> <p>About 55% of the electricity is used in Mali, 30% in Senegal and 15% in Mauritania.</p>	

Benefit sharing

Toktogul reservoir in the Syr Darya River
(Kyrgyzstan, 1200MW)

Compensate coal, gas, or money to
upstream countries for energy loss

“Use of Water and Energy Resources in
the Syr Darya Basin 1998”

1952 Egypt-Uganda treaty

Egypt agreed to pay Uganda for the
Owen Falls Dam in Lake Victoria and loss
of hydropower

Example



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Potential for benefit Sharing in the Ganges–Brahmaputra–Meghna (GBM) Basin

Introduction

- China, India, Nepal, Bhutan and Bangladesh share the Ganges–Brahmaputra–Meghna (GBM)
- There are dispute with water sharing among the countries



Potential for benefit Sharing in the Ganges–Brahmaputra–Meghna (GBM) Basin

Potential parties	Benefits to be shared
Nepal to Bangladesh	<ul style="list-style-type: none">• Water storage to mitigate floods in monsoon and augment dry season flow• Supply of hydropower
Bangladesh to Nepal	<ul style="list-style-type: none">• Provide transit through river and road• Provide financial and technical support for the construction of the storage dams
India to Nepal	<ul style="list-style-type: none">• Provide transit through river and road• Provide financial and technical support for the construction of the storage dams

Potential for benefit Sharing in the Ganges–Brahmaputra–Meghna (GBM) Basin

Potential parties	Benefits to be shared
Nepal to India	<ul style="list-style-type: none">• Supply of hydropower
India to Bangladesh	<ul style="list-style-type: none">• Water storage structure (Brahmaputra)• Minimum flow in (major) common rivers• Supply of hydropower
Bangladesh to India	<ul style="list-style-type: none">• Provide transit through river and road• Trade facility by reducing tax for Indian goods
Between India, Bangladesh, Bhutan, and Nepal	<ul style="list-style-type: none">• Navigation, transit, and communication• Exchange of technology• Regional security• Water Quality /Ecological improvement• Water storage facility, Development of hydropower• Upgrading flood forecasting

Thank You

War over water seems neither strategically rational, nor economically viable

