Treaty summaries

International water treaties

There follows a hard copy preview of a computerized compilation of international water treaties, listed first by date, and followed by a summary of each treaty according to district.

07/20/1874*	Articles of agreement between the Edur Durbar and the
	British government
02/26/1885	Act of Berlin
08/10/1889	Agreement between Great Britain and France
04/15/1891	Protocol between Great Britain and Italy for the demarca-
	tion of their respective spheres**
09/16/1892	Amended terms of agreement between the British Govern-
	ment and the State of Jind, for regulating the supply of water
	for irrigation
08/29/1893	Agreement between the British government and the Patiala
	state regarding the Sirsa branch of the Western Jumna canal
02/04/1895	Exchange of letters between Great Britain and France

Exchange of notes between Great Britain and Ethiopia

03/18/1902

^{02/23/1904} Final working agreement relative to the Sirhind canal between Great Britain and Patiala, Jind and Nabha

^{*} Date format: month/day/year.

^{**} Some titles have been abbreviated, indicated by elision marks and/or square brackets.

- 05/09/1906 Agreement ... modifying the agreement signed at Brussels 12 May 1894
- 10/19/1906 Agreement between Great Britain and France
- 04/11/1910 Convention regarding the water supply of Aden between Great Britain and the Sultan of Abdali
- 05/05/1910 Treaty between Great Britain and the United States relating to boundary waters and boundary questions
- 09/04/1913 Exchange of notes constituting an agreement ... respecting the boundary between Sierra Leone and French Guinea
- 06/12/1915 Protocol ... for the delimitation of the frontier along the River Horgos
- 04/20/1921 Convention of Barcelona
- 10/28/1922 Convention between [Finland] and the [USSR] concerning the maintenance of river channels and the regulation of fishing on water courses ...
- 02/14/1925 Convention between [Norway] and [Finland] concerning the international legal regime of the waters of the Pasvik (Paatsjoki) and the Jakobselv ...
- 02/24/1925 Agreement between the United States of America and Canada to regulate the level of Lake of the Woods
- 06/15/1925 Notes exchanged ... respecting the regulation of the utilization of the waters of the River Gash
- 12/20/1925 Exchange of notes between Great Britain and Italy
- 07/01/1926 Agreement ... regulating the use of the water of the Cunene river
- 07/20/1927 Convention ... regarding various questions of economic interest ...
- 08/11/1927 Convention between Spain and Portugal to regulate the hydroelectric development of the international section of the River Douro
- 01/29/1928 Convention between the German Reich and the Lithuanian Republic regarding the maintenance and administration of the frontier waterways . . .
- 05/07/1929 Exchange of notes ... in regard to the use of ... the River Nile for irrigation purposes
- 04/29/1931 Exchange of notes ... respecting the boundary between the mandated territory of South Africa and Angola
- 11/22/1934 Agreement ... regarding water rights on the boundary between Tanganyika and Ruanda-Urundi
- 05/11/1936 Exchange of notes ... regarding the boundary between Tanganyika Territory and Mozambique
- 11/07/1940 Exchange of notes between ... the United States of America

- and ... Canada constituting an agreement regarding the development of certain portions ...
- 05/20/1941 Exchange of notes between the government of the United States and the Government of Canada ... concerning temporary diversion for power ...
- 11/27/1941 Exchange of notes constituting an agreement between the government of the United States and the Government of Canada relating to additional ...
- 05/22/1944 Declaration and exchange of notes concerning the termination of the process of demarcation of the Peruvian-Ecuadorean frontier
- 11/14/1944 Treaty between the United States of America and Mexico relating to the waters of the Colorado and Tijuana rivers, and of the Rio Grande ...
- 06/01/1945 Supplementary boundary treaty between [Argentina] and [Paraguay] on the river Pilcomayo
- 12/30/1946 Agreement concerning the utilization of the rapids of the Uruguay river in the Salto Grande area
- 02/03/1947 Treaty between the [USSR] and [Finland] on the transfer to the territory of the Soviet Union of part of the state territory of Finland in the region of ...
- 02/10/1947 Treaty of peace with Italy, signed at Paris, on 10 February 1947
- 05/04/1948 Inter-dominion agreement between the government of India and the government of Pakistan, on the canal water dispute between ...
- 05/31/1949 Exchanges of notes ... regarding the construction of the Owen Falls dam, Uganda
- 11/25/1949 Treaty concerning the regime of the Soviet-Romanian state frontier and final protocol
- 12/05/1949 Exchange of notes constituting an agreement between [Great Britain] ... and [Egypt] regarding the construction of the Owen Falls dam, Uganda
- 01/19/1950 Exchange of notes constituting an agreement between [Great Britain] (on behalf of ... Uganda) and [Egypt] regarding cooperation in meteorological ...
- 02/24/1950 Treaty between the [USSR] and [Hungary] concerning the regime of the Soviet-Hungarian state frontier and final protocol
- 02/27/1950 Treaty between the United States of America and Canada relating to the uses of the waters of the Niagara river
- 04/25/1950 State treaty concerning the construction of a hydroelectric power-plant on the Sauer at Rosport/Ralingen
- 06/09/1950 Convention between the [USSR] and [Hungary] concerning

- measures to prevent floods and to regulate the water regime in the area of the frontier ...
- 09/07/1950 Terms of reference of the Helmand River Delta Commission and an interpretive statement relative thereto, agreed by conferees of ...
- 10/16/1950 Agreement concerning the diversion of water in the Rissbach, Durrach and Walchen districts
- 10/16/1950 Agreement between [Austria] and [Germany] concerning the Österreichisch-Bayerische Kraftwerke AG
- 04/18/1951 Letters between the irrigation adviser and director of irrigation, Sudan government, and the controller of agriculture, Eritrea
- 04/25/1951 Agreement between [Finland] and [Norway] on the transfer from the course of the Näätämo (Neiden) river to the course of the Gandvik river ...
- 02/13/1952 Agreement concerning the Donaukraftwerk-Jochenstein Aktiengesellschaft
- 06/30/1952 Exchange of notes constituting an agreement between Canada and the United States of America relating to the St Lawrence Seaway project
- 07/16/1952 Exchange of notes constituting an agreement between the [UK/Uganda] and [Egypt] regarding the construction of the Owen Falls dam in Uganda
- 12/25/1952 Convention between the [USSR] and [Romania] concerning measures to prevent floods and to regulate the water regime of the river Prut
- 01/21/1953 Exchange of notes constituting an agreement between [Great Britain] and [Portugal] providing for the Portuguese participation in the Shiré valley . . .
- 06/04/1953 Agreement between the Republic of Syria and the Hashemite Kingdom of Jordan concerning the utilization of the Yarmuk waters
- 11/12/1953 Exchange of notes constituting an agreement between the United States and Canada relating to the establishment of the St Lawrence River joint ...
- 04/16/1954 Agreement between [Czechoslovakia] and [Hungary] concerning the settlement of technical and economic questions relating to frontier water ...
- 04/25/1954 Agreement between the government of India and the government of Nepal on the Kosi project
- 05/25/1954 Convention between the governments of [Yugoslavia] and [Austria] concerning water economy questions relating to the Drava
- 11/18/1954 Agreement between [Great Britain/Rhodesia-Nyasaland]

- with regard to certain ... natives living on the Kwando river
- 12/16/1954 Agreement between [Yugoslavia] and [Austria] concerning water economy questions in respect of the frontier sector of the Mura
- 04/07/1955 Agreement between [Yugoslavia] and [Romania] concerning questions of water control on water control systems and watercourses on or intersected ...
- 04/20/1955 Exchange of notes between Peru and Bolivia establishing a joint commission for study of ... joint use of the waters of Lake Titicaca
- 08/08/1955 Agreement between [Yugoslavia] and [Hungary] together with the statute of the Yugoslav-Hungarian Water Economy Commission
- 12/31/1955 Johnston Negotiations
- 01/20/1956 Agreement concerning cooperation between [Brazil] and [Paraguay] in a study on the utilization of the water power of the Acaray and Monday . . .
- 04/09/1956 Treaty between the Hungarian People's Republic and the Republic of Austria concerning the regulation of water economy questions
- 08/18/1956 Agreement between the [USSR] and [China] on joint research operations to determine the natural resources of the Amur river basin and the prospects ...
- 10/13/1956 Treaty between [Czechoslovakia] and [Hungary] concerning the regime of state frontiers
- 12/05/1956 Agreement between [Yugoslavia] and [Albania] concerning water economy questions, together with the statute of the Yugoslav-Albanian Water...
- 02/19/1957 Agreement between Bolivia and Peru concerning a preliminary economic study of the joint utilization of the waters of Lake Titicaca
- 05/14/1957 Treaty between the governments of the [USSR] and [Iran] concerning the regime of the Soviet-Iranian frontier and the procedure for the settlement ...
- 08/11/1957 Agreement between Iran and the Soviet Union for the joint utilization of the frontier parts of the rivers Aras and Atrak for irrigation and power ...
- 12/18/1957 Agreement between Norway and the Union of Soviet Socialist Republics on the utilization of water power on the Pasvik (Paatso) river
- 01/23/1958 Agreement between [Argentina] and [Paraguay] concerning a study of the utilization of the water power of the Apipe falls

- 03/21/1958 Agreement between [Czechoslovakia] and [Poland] concerning the use of water resources in frontier waters
- 04/04/1958 Agreement concerning water-economy questions between the government of [Yugoslavia] and [Bulgaria]
- 07/10/1958 State treaty between [Luxembourg] and [West Germany] concerning the construction of hydroelectric power installations on the Our river
- 07/12/1958 Agreement between the government of the French Republic and the Spanish government relating to Lake Lanoux
- 04/29/1959 Agreement between the [USSR], [Norway], and [Finland] concerning the regulation of Lake Inari by means of the Kaiakoski ... dam
- 10/23/1959 Indo-Pakistan agreement (with appendices) on East Pakistan border disputes
- 11/08/1959 Agreement between the government of the United Arab Republic and the government of Sudan
- 12/04/1959 Agreement between [Nepal] and [India] on the Gandak Irrigation and Power Project
- 01/11/1960 Agreement between Pakistan and India on West Pakistan-India border disputes
- 09/19/1960 Indus Waters Treaty
- 10/24/1960 Agreement relating to the construction of Amistad dam on the Rio Grande to form part of the system of international storage dams provided for by the ...
- 01/17/1961 Treaty relating to cooperative development of the water resources of the Columbia river basin (with annexes)
- 02/24/1961 Exchange of notes constituting an agreement concerning the treaty of 12 May 1863 to regulate the diversion of water from the River Meuse and the ...
- 04/26/1963 Exchange of notes constituting an agreement ... for the development of the Mirim lagoon
- 07/26/1963 Convention of Bamako
- 10/26/1963 Act ... states of the Niger basin
- 11/25/1963 Agreement ... relating to the Central African Power Corporation
- 11/30/1963 Convention between [Yugoslavia] and [Romania] concerning the operation of the Iron Gates water power and navigation . . .
- 11/30/1963 Agreement between the Socialist Federal Republic of Yugoslavia and the Romanian People's Republic concerning the construction and operation ...
- 11/30/1963 Convention between the Socialist Federal Republic of Yugoslavia and the Romanian People's Republic concerning compensation for damage ...

- 01/22/1964 Exchange of notes constituting an agreement between Canada and the United States of America concerning the treaty relating to cooperative ...
- 01/22/1964 Exchange of notes constituting an agreement between Canada and the United States of America regarding sale of Canada's entitlement ...
- 02/11/1964 Agreement between Iraq and Kuwait concerning the supply of Kuwait with fresh water ...
- 05/22/1964 Convention and Statutes ... Lake Chad basin
- 07/16/1964 Convenio entre España y Portugal para Regular el Aprovechamiento hydroelectrico de los tramos internacionales de rio Duero y de sus afluentes
- 07/17/1964 Agreement between [Poland] and the [USSR] concerning the use of water resources in frontier waters
- 09/16/1964 Exchange of notes constituting an agreement between Canada and the United States of America authorizing the Canadian entitlement purchase ...
- 11/25/1964 Agreement concerning the river Niger commission and the navigation and transport on the river Niger
- 08/12/1965 Convention between Laos and Thailand for the supply of power
- 04/30/1966 Agreement between [West Germany], [Austria], and [Switzerland] relating to the withdrawal of water from Lake Constance
- 08/24/1966 Exchange of notes constituting an agreement concerning the loan of waters of the Colorado river for irrigation of lands in the Mexicali valley
- 12/19/1966 Revised Agreement between [Nepal] and [India] on the Kosi project
- 04/01/1967 Untitled: Agreement between South Africa and Portugal
- 09/28/1967 Franco-Italian convention concerning the supply of water to the Commune of Menton
- 12/07/1967 Treaty between [Austria] and [Czechoslovakia] concerning the regulation of water management questions relating to frontier waters
- 02/27/1968 Agreement between [Czechoslovakia] and [Hungary] concerning the establishment of a river administration in the Rajka-Gönyü sector ...
- 05/29/1968 Convenio y protocola adicional para regular el uso y aprovechamiento hidraulico de los tramos internacionales de los rios Miño, Limia, Tajo ...
- 10/23/1968 Agreement between the People's Republic of Bulgaria and the Republic of Turkey concerning cooperation . . .

- 01/21/1969 Agreement between South Africa and Portugal
- 03/21/1969 Exchange of notes constituting an agreement for the construction of a temporary cofferdam at Niagara
- 03/21/1969 Exchange of Notes constituting an agreement between Canada and the United States of America for the temporary diversion for power purposes ...
- 07/04/1969 Convention concerning development of the Rhine between Strasbourg and Lauterbourg
- 01/30/1970 Convention of Dakar
- 12/16/1971 Agreement between [Romania] and the [USSR] on the joint construction of the Stinca-Costesti hydraulic engineering scheme
- 07/12/1972 Agreement between [Finland] and the [USSR] concerning the production of electric power in the part of the Vuoksi river bounded by the Imatra ...
- 11/24/1972 Statute of the Indo-Bangladesh Joint Rivers Commission
- 04/26/1973 Treaty between [Brazil] and [Paraguay] concerning the hydroelectric utilization of the water resources of the Paraná river ...
- 11/13/1973 Agreement between [Australia/Papua New Guinea] and [Indonesia] concerning administrative border arrangements
- 01/31/1975 Joint declaration of principles for utilization of the waters of the lower Mekong basin, signed by [Cambodia], [Laos], [Thailand], and [Vietnam]
- 03/06/1975 Agreement ... concerning the use of frontier watercourses
- 02/12/1976 Segundo protocolo
- 11/05/1977 Agreement between [Bangladesh] and [India] on sharing of the Ganges' waters at Farakka and on augmenting its flows
- 04/07/1978 Agreement between [Nepal] and [India] on the renovation and extension of Chandra canal, pumped canal, and distribution of the Western Kosi canal
- 06/30/1978 Convention relating to the creation of the Gambia River Basin Development Organization
- 07/03/1978 Treaty for Amazonian Cooperation
- 10/19/1979 Agreement on Paraná river projects
- 11/21/1980 Convention creating the Niger Basin Authority
- 07/20/1983 Meeting of the Joint Rivers Commission
- 10/01/1986 Treaty on the Lesotho Highlands water project between [Lesotho] and [South Africa]
- 10/08/1990 Convention ... on the international commission for the protection of the Elbe
- 03/26/1993 Agreement on joint activities in addressing the Aral sea ...

140 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

06/30/1994	Draft Convention on Cooperation for the Protection and
	Sustainable Use of the Danube River
10/26/1994	Treaty of peace between [Israel] and [Jordan], done at
	Arava/Araba crossing point
03/03/1995	Resolution of the Heads of States of the Central Asia [sic]
	on work of the EC of ICAS on implementation
04/05/1995	Agreement on the Cooperation for the Sustainable Devel-
	opment of the Mekong River Basin
09/28/1995	Israeli-Palestinian Interim Agreement on the West Bank
	and the Gaza Strip
12/12/1996	Treaty between [India] and [Bangladesh] on sharing of the
	Ganga/Ganges waters at Farakka

AMAZON BASIN

Treaty title Declaration and exchange of notes concerning the

termination of the process of demarcation of the

Peruvian-Ecuadorean frontier

Basins involved Amazon, Chira, Zarumilla, Tumbes

Main basinAmazonDate signed05/22/1944SignatoriesBilateralPartiesPeru, EcuadorPrincipal focusWater supply

Non-water linkages None

Comments on above

Monitoring No

Allocations Peru agreed to supply water to Ecuadorian villages

on the right bank of the "so-called old bed of the River Zarumilla." Obviously the specific needs of the villages are unclear, but Peru agreed to ensure

an adequate water supply

Enforcement None

Unequal power relationship Not available **Information sharing** Not available

Conflict resolution None **Method for water division** Unclear

Negotiations

Additional comments

Treaty title Treaty for Amazonian Cooperation

Basins involvedAmazonMain basinAmazonDate signed07/03/1978SignatoriesMultilateral

Parties Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru,

Surinam, Venezuela

Principal focus Industrial uses

Non-water linkages None

Comments on above Treaty focuses most on development, not supply

Monitoring No

Allocations

EnforcementNoneUnequal power relationshipYesInformation sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations

Additional comments They make mention of sustainable development

and avoiding pollution

AMUR BASIN

Treaty title Protocol ... for the delimitation of the frontier

along the River Horgos

Basins involvedHorgosMain basinAmurDate signed06/12/1915SignatoriesBilateralPartiesChina, RussiaPrincipal focusWater supply

Non-water linkages None

Comments on above Primarily a border demarcation

Monitoring No

Allocations Existing canals were to remain in use; the remain-

der of water was to be divided equally

EnforcementNoneUnequal power relationshipYesInformation sharingNoneConflict resolutionNoneMethod for water divisionUnclear

Negotiations Tensions over the border continue to this day;

Russia may have been trying to secure one front while fighting internal (revolution) and external

(WWI) battles

Additional comments Russia and China have the same border dispute as

they have had for some time. The water supply was secondary and favoured the Russian position

Treaty title Agreement between the [USSR] and [China] on

joint research operations to determine the natural resources of the Amur river basin and the pros-

pects ...

Basins involvedAmurMain basinAmurDate signed08/18/1956SignatoriesBilateralPartiesChina, USSRPrincipal focusHydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionNone

Method for water division

Negotiations

None

Additional comments

Created a Joint Scientific Council on problems

connected with the study

ARAKS, ATRAK BASIN

Treaty title Agreement between Iran and the Soviet Union for

the joint utilization of the frontier parts of the rivers Aras and Atrak for irrigation and power ...

Basins involvedAraks, AtrakMain basinAraks, AtrakDate signed08/11/1957SignatoriesBilateralPartiesIran, USSRPrincipal focusWater supply

Non-water linkages Land

Comments on above Frontier modifications through the reservoirs

Monitoring Not available

Allocations Each party receives half of water for irrigation and

hydropower generation

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available **Method for water division** Equal parts

Negotiations

Additional comments A joint commission was later added (although it

had no conflict resolution capacity) for establishment of the boundary line, especially after alluvial

deposits cause a shift in the thalweg

Treaty title Treaty between the government of the [USSR] and

[Iran] concerning the regime of the Soviet-Iranian frontier and the procedure for the settlement ...

Basins involved Tedzen, Atrak, Araks, Harirud

Main basinAtrak, AraksDate signed05/14/1957SignatoriesBilateralPartiesUSSR, IranPrincipal focusPollutionNon-water linkagesNone

Comments on above

Monitoring Yes

Allocations Residents of either state are entitled to fish in

frontier waters. They may water livestock, pro-

vided that the livestock do not wander into the other's territory. Pollution control is mentioned

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

COLORADO BASIN

Treaty title Treaty between the United States of America and

Mexico relating to the waters of the Colorado and

Tijuana rivers, and of the Rio Grande ...

Basins involved Colorado, Rio Grande, Tijuana, Rio Bravo

Main basinColoradoDate signed11/14/1944SignatoriesBilateral

Parties United States, Mexico

Principal focus Water supply
Non-water linkages Other linkages

Comments on above Joint construction of dams and reservoirs for stor-

age and flood controls and possible hydropower.

Monitoring Yes

Allocations US: All waters reaching the Rio Grande from the

Pecos & Devils rivers, Goodenough spring, and Alamito, Terlingua, and Pinto creeks. Half of the flow below the lowest major international storage dam. One-third of the flow (431.721 MCM min.) reaching the Rio Grande from the Conchos, San Diego, San Rodrigo, Escondido and Salado rivers

and the Las Vacas arroyo. (cont'd below)

Enforcement None **Unequal power relationship** Yes **Information sharing** Yes

Conflict resolution Not available **Method for water division** Complex but clear

Negotiations Commission controls authorization of temporary

diversions to one country, provided that "... the use of such water shall not establish any right to

continue to divert it."

Additional comments Half of all other flows reaching the Rio Grande,

including "unmeasured tributaries," between Fort Quitman and the lowest international storage dam. Mexico: min. 1.850 BCM from Colorado (max 2.1

BCM) Mexico: all waters from the San Juan and Alamo rivers; half of Rio Grande below the lowest major international storage dam, and two-thirds of the Conchos, San Diego, San Rodrigo, Escondido, and Salado river, and the Las Vacas arroyo. Also one-half of all other flows reaching the Rio Grande, including "unmeasured tributaries" between Fort Quitman and the lowest international storage dam

Treaty title Exchange of notes constituting and agreement

concerning the loan of waters of the Colorado river

for irrigation of lands in the Mexicali valley

Basins involvedColoradoMain basinColoradoDate signed08/24/1966SignatoriesBilateralPartiesUSA, MexicoPrincipal focusWater supplyNon-water linkagesMoney

Comments on above Mexico will reimburse the US for any decrease in

power generation at Hoover or Glen Canyon

Monitoring Not available

Allocations USA releases 40,535 acre-feet (50 MCM) of water

from September to December 1966 and will retain the same amount over one or three years, depend-

ing on the weather conditions that follow

Enforcement Not available

Unequal power relationship Yes

Information sharing Not available

Conflict resolution None

Method for water division (

Negotiations

Additional comments

Complex but clear

COLUMBIA BASIN

Treaty titleTreaty relating to cooperative development of the

water resources of the Columbia River Basin (with

annexes)

Basins involved Columbia, Kootenai

Main basinColumbiaDate signed01/17/1961SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropower

Non-water linkages Money

Comments on above Canada will build reservoirs; US will pay \$64.4

million for flood control, plus a fee for each flood

Monitoring Ye

Allocations Canada receives half the electricity generated by

the plants. Either party may sell the electricity

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionEqual parts

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

tween Canada and the United States of America

concerning the treaty relating to cooperative ...

Basins involvedColumbiaMain basinColumbiaDate signed01/22/1964SignatoriesBilateralPartiesUSA, CanadaPrincipal focusFlood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations Canada and the US agree that the previous treaty

"provides each of the a right to divert water for a

consumptive use"

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionNoneMethod for water divisionUnclear

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

tween Canada and the United States of America

regarding sale of Canada's entitlement ...

Basins involvedColumbiaMain basinColumbiaDate signed01/22/1964SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropowerNon-water linkagesMoney

Comments on above This treaty refers to the 01/17/1961 treaty and

actually sells the water for the price agreed upon in

the earlier treaty (US \$254,400,000)

Monitoring Not available

Allocations The sale of hydropower lasts for 30 years

Enforcement Not available

Unequal power relationship N

Information sharingNot availableConflict resolutionNot availableMethod for water divisionComplex but clear

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

tween Canada and the United States of America authorizing the Canadian entitlement purchase ...

Basins involvedColumbiaMain basinColumbiaDate signed09/16/1964SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropower

Non-water linkages Money

Comments on above Sale of hydropower entitlement provided for; US

\$254,400,000 paid to Canada for treaty projects

Monitoring Not available

Allocations As before, Canada is entitled to receive one-half of

the usable hydropower and one-half of the additional power resulting from additional stream flow

created by channel alterations

Enforcement Not available

Unequal power relationship No **Information sharing** Yes

Conflict resolution Other government agency

Method for water division Complex/clear

Negotiations The treaty also specifies exact numbers for com-

pensation of lost downstream power: 2.70 mills per kilowatt-hour, and 46 cents per kilowatt of dependable (non-seasonal?) capacity for each month

or fraction thereof

Additional comments A permanent engineering board is also established

CONGO BASIN

Treaty title Convention ... regarding various questions of eco-

nomic interest ...

Basins involvedM'PozoMain basinCongoDate signed07/20/1927SignatoriesBilateral

Parties Belgium, Portugal
Principal focus Hydropower
Non-water linkages Money

Comments on above A portion of the electricity would go to Portugal

(Angola), the downstream riparian

Monitoring Not available

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution UN/third party **Method for water division** Not available

Negotiations Flooded areas would be compensated for any

damages

Additional comments 15% of electric power generated by the dam would

go to Angola

CUNENE BASIN

Treaty title Agreement ... regulating the use of the water of

the Cunene river

Basins involved Cunene (Kunene)

Main basinCuneneDate signed07/01/1926SignatoriesBilateral

Parties South Africa, Portugal

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionEqual parts

Negotiations

Additional comments Treaty concerned irrigation and hydropower. If

the river diversion into South Africa resulted in a financial "gain," then payment was to be given

for use of the waters

Treaty title Exchange of notes ... respecting the boundary be-

tween the mandated territory of South Africa and

Angola

Basins involvedCuneneMain basinCuneneDate signed04/29/1931SignatoriesBilateral

Parties South Africa, Portugal

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionUnclear

Negotiations

Additional comments Supplied drinking water to the inhabitants of

Ovamboland for drinking and cattle

Treaty title Agreement between South Africa and Portugal

Basins involvedCuneneMain basinCuneneDate signed01/21/1969SignatoriesBilateral

Parties Portugal, South Africa

Principal focus Water supply

Non-water linkages Money

Comments on above Financing provided by South Africa for the dam,

compensation for flooded land and works area

Monitoring Not available

Allocations Portugal gets 50% of the flow (as measured at

Ruacana). Portugal gets 50% of the flow for irrigation in Ovamboland, max 6m3/sec. No charge for

the water.

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionEqual parts

Negotiations Aimed at regulating the flow, two hydroelectric

plants, and water supply. Established a joint technical commission. Financial obligations of S. Africa limited to R 8,125,000 to be repaid @ 5% over 20

years

Additional comments This treaty centres on money: S. Africa pays Por-

tugal for kWh generated at the dam, with ratios

established for payment versus % of flow

DANUBE BASIN

Treaty title Treaty concerning the regime of the Soviet-Roma-

nian state frontier and final protocol

Basins involvedDanubeMain basinDanubeDate signed11/25/1949SignatoriesBilateralBasins involvedBilateralUSSP ParametersBilateral

Parties USSR, Romania
Principal focus Flood control

Non-water linkages Money

Comments on above Indirectly: any works undertaken will cost each

side an equal amount

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship Yes

Information sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations

Additional comments

Treaty title Treaty between the [USSR] and [Hungary] con-

cerning the regime of the Soviet-Hungarian state

frontier and final protocol

Basins involvedDanubeMain basinDanubeDate signed02/24/1950SignatoriesBilateralPartiesUSSR, HungaryPrincipal focusFlood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available

Method for water division None

Negotiations

Additional comments

Treaty title Convention between the [USSR] and [Hungary]

concerning measures to prevent floods and to regulate the water regime in the area of the frontier...

Basins involvedTiszaMain basinDanubeDate signed06/09/1950SignatoriesBilateralPartiesUSSR, Hungary

Principal focus Flood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available

Method for water division None

Negotiations

Additional comments

Treaty title Agreement concerning the diversion of water in

the Rissbach, Durrach, and Walchen districts

Basins involvedIsar, RissbachMain basinDanubeDate signed10/16/1950SignatoriesBilateral

Parties Austria, Germany (FRG)

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Austria "agrees to waive without compensation the

right to lead off any waters of the Rissbach and its tributaries." Austria also agrees to "the leading-off without compensation of: "The Dürrach ... Kesselbach ... Blaserbach ... [and] the Dollmann-

bach" streams

Enforcement Not available **Unequal power relationship** Not available **Information sharing** Not available

Conflict resolution None **Method for water division** None

Negotiations

Additional comments

Treaty title Agreement between [Austria] and [Germany] con-

cerning the Österreichisch-Bayerische Kraftwerke

AG

Basins involvedInn, SalzachMain basinDanubeDate signed10/16/1950SignatoriesBilateral

Parties Austria, Germany (FRG)

Principal focus Hydropower

Non-water linkages Money

Comments on above Creation of a joint-stock company which will pay

some of the share capital in developing hydro-

power resources

Monitoring Yes

Allocations Water rights will be sold

EnforcementCouncilUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionUnclear

Negotiations

Additional comments Waters of the Danube are excluded from this

agreement; only those of the Inn and Salzach are

under the effects of this treaty

Treaty title Agreement concerning the Donaukraftwerk-

Jochenstein Aktiengesellschaft

Basins involvedDanubeMain basinDanubeDate signed02/13/1952SignatoriesMultilateral

Parties FRG (West Germany), Austria

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Non-conflicting water right permits are to be issued

simultaneously and are to be "as equal in scope as

possible"

Enforcement Council
Unequal power relationship
Information sharing Yes
Conflict resolution Council
Method for water division Unclear

Negotiations

Additional comments

Treaty title Convention between the [USSR] and [Romania]

concerning measures to prevent floods and to reg-

ulate the water regime of the river Prut

Basins involvedDanube, PrutMain basinDanubeDate signed12/25/1952SignatoriesBilateral

Parties USSR, Romania Principal focus Flood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

Treaty title Agreement between [Czechoslovakia] and [Hun-

gary] concerning the settlement of technical and economic questions relating to frontier water ...

Basins involvedDanube, TiszaMain basinDanubeDate signed04/16/1954SignatoriesBilateral

Parties Hungary, Czechoslovakia

Principal focus Flood control

Non-water linkages None

Comments on above Some services are provided by each side during the

construction of works

Monitoring Yes

Allocations Each party "shall ... be free to use half the natural

discharge ... exclusive of any increase brought

about by artificial interference"

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolutionMethod for water division
Not available
Equal parts

Negotiations

Additional comments The states also agree to not grant any water use

permit for the "execution on frontier watercourses

of hydraulic works which might adversely affect the

discharge conditions or the bed"

Treaty title Convention between the governments of [Yugo-

slavia] and [Austria] concerning water economy

questions relating to the Drava

Basins involved Drava Main basin Danube **Date signed** 05/25/1954 **Signatories** Bilateral

Parties Austria, Yugoslavia **Principal focus** Water supply

Non-water linkages Money

Comments on above The Yugoslavs receive at least 50m schillings in in-

dustrial products for 82.5 GWh over 4 years

Monitoring Yes

Allocations A complex grid of daily flows, measured at Schwa-

> beck, is to be maintained. For flows below 200 cms/ above 300 cms, the difference in flow below Lavamund can be augmented at Dravograd by withdrawing not more than 1 MCM from the reservoir.

Not available **Enforcement**

Not available Unequal power relationship

Yes **Information sharing** Council **Conflict resolution**

Method for water division Complex but clear

Negotiations

Additional comments

Treaty title Agreement between [Yugoslavia] and [Austria]

concerning water economy questions in respect of

the frontier sector of the Mura

Basins involved Mura Main basin Danube **Date signed** 12/16/1954 **Signatories** Bilateral

Parties Austria, Yugoslavia **Principal focus** Flood control

None

Non-water linkages

Comments on above

Monitoring Yes

Allocations

Enforcement Not available Unequal power relationship Not available

Information sharing Yes **Conflict resolution** Council Method for water division None

Negotiations

Additional comments Created the Permanent Yugoslav-Austrian Com-

mission for the Mura

Treaty title Agreement between [Yugoslavia] and [Romania]

concerning questions of water control on water control systems and watercourses on or intersected

. . .

Basins involvedDanube, TiszaMain basinDanubeDate signed04/07/1955SignatoriesBilateral

Parties Romania, Yugoslavia

Principal focus Flood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Council
Unequal power relationship
Information sharing Yes
Conflict resolution Council
Method for water division Not available

Negotiations

Additional comments Created a Joint Technical Commission to record

data and examine any projects that might affect the

other party's water regime

Treaty title Agreement between [Yugoslavia] and [Hungary]

together with the statute of the Yugoslav-Hungar-

ian water economy commission

Basins involved Mura, Drava, Maros, Tisa, Danube

Main basinDanubeDate signed08/08/1955SignatoriesBilateral

Parties Hungary, Yugoslavia

Principal focus Flood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharing Yes
Conflict resolution Council
Method for water division None

Negotiations

Additional comments Created a commission to oversee development and

flood control on the frontier rivers

Treaty title Treaty between the Hungarian People's Republic

and the Republic of Austria concerning the regu-

lation of water economy questions

Basins involvedDanubeMain basinDanubeDate signed04/09/1956SignatoriesBilateral

Parties Austria, Hungary Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionUnclear

Negotiations The treaty focuses heavily on money, expenditure

sharing, and budgets

Additional comments The contracting parties will discuss in Commission

proceedings to grant water rights only after the measures for works to be taken have been discussed

Treaty title Treaty between [Czechoslovakia] and [Hungary]

concerning the regime of state frontiers

Basins involvedDanubeMain basinDanubeDate signed10/13/1956SignatoriesBilateral

Parties Czechoslovakia, Hungary

Principal focus Flood control

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations

Additional comments Each party agrees to not obstruct the flow of water

in any manner unless both parties agree

Treaty title Agreement between [Yugoslavia] and [Albania]

concerning water economy questions, together with the statue of the Yugoslav-Albanian Water ...

Basins involved Crni Drim, Beli Drim, Bojana, Lake Skadar

Main basinDanubeDate signed12/05/1956SignatoriesBilateral

Parties Albania, Yugoslavia

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Not available

Method for water division

Negotiations

Additional comments A Water Economy Commission was established

Treaty title Agreement concerning water economy questions

between the government of [Yugoslavia] and [Bul-

garia]

None

Basins involvedDanubeMain basinDanubeDate signed04/04/1958SignatoriesBilateral

Parties Yugoslavia, Bulgaria Principal focus Industrial uses

Non-water linkages None

Comments on above The document does address customs issues, but not

as a substitute for water

Monitoring Yes

Allocations

Enforcement None

Unequal power relationship Not available

Information sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations

Additional comments

Treaty title Convention between [Yugoslavia] and [Romania]

concerning the operation of the Iron Gates water

power and navigation ...

Basins involved Danube

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Main basinDanubeDate signed11/30/1963SignatoriesBilateral

Parties Yugoslavia, Romania

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement None

Unequal power relationship Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionEqual parts

Negotiations

Additional comments

Treaty title Agreement between the Socialist Federal Republic

of Yugoslavia and the Romanian People's Republic concerning the construction and operation ...

Basins involvedDanubeMain basinDanubeDate signed11/30/1963SignatoriesBilateral

Parties Yugoslavia, Romania

Principal focus Hydropower

Non-water linkages Land

Comments on above Modification of international frontier to suit the

dam

Monitoring Yes

Allocations Each state gets one-half the electric power (est. 2

million watts, or 10 billion kWh annually)

Enforcement Not available **Unequal power relationship** Not available

Information sharing
Conflict resolution
Method for water division
Yes
Council
Equal parts

Negotiations

Additional comments

Treaty title Convention between the Socialist Federal Republic

of Yugoslavia and the Romanian People's Repub-

lic concerning compensation for damage ...

Basins involvedDanubeMain basinDanubeDate signed11/30/1963SignatoriesBilateral

Parties Yugoslavia, Romania

Principal focusHydropowerNon-water linkagesMoney

Comments on above Compensation for damage caused by creation of

the reservoir or construction of the dam

Monitoring Not available

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Not available

Method for water division

Negotiations

Additional comments

Another treaty signed this day dealt with "the determination of the value of investments and mutual accounting in connexion with the construction of the Iron Gates water power and navigation system

on the River Danube"

Treaty title Treaty between [Austria] and [Czechoslovakia]

concerning the regulation of water management

questions relating to frontier waters

Basins involvedDanubeMain basinDanubeDate signed12/07/1967SignatoriesBilateral

Parties Austria, Czechoslovakia

Principal focusNavigationNon-water linkagesMoney

Comments on above ... mostly concerning maintenance and improve-

ments

None

Monitoring Yes

Allocations "existing water rights in respect of frontier waters

and the obligations connected therewith shall re-

main unaffected"

Enforcement Council **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionEqual parts

Negotiations

Additional comments Scope of the treaty includes the following: "waters

intersecting the state frontier and waters adjoining the state frontier where any ... measures applied to them in [either] state would have seriously adverse affects on water conditions in the territory of the

other ..."

Treaty title Agreement between [Czechoslovakia] and [Hun-

gary] concerning the establishment of a river ad-

ministration in the Rajka-Gönyü Sector ...

Basins involvedDanubeMain basinDanubeDate signed02/27/1968SignatoriesBilateral

Parties Czechoslovakia, Hungary

Principal focus Navigation
Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations Created a joint river administration

Additional comments

Treaty title Agreement between [Romania] and the [USSR] on

the joint construction of the Stinca-Costesti hy-

draulic engineering scheme

Basins involvedPrutMain basinDanubeDate signed12/16/1971SignatoriesBilateral

Parties USSR and Romania

Principal focus Hydropower

Non-water linkages Money

Comments on above Compensation for flooded land

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionCouncilMethod for water divisionEqual parts

Negotiations Some border corrections made on an international

boundary

Additional comments

Treaty title Draft Convention on Cooperation for the Protec-

tion and Sustainable Use of the Danube River

Basins involvedDanubeMain basinDanube

Date signed 06/30/1994

Signatories Multilateral (unsigned)

Parties

Principal focus Pollution
Non-water linkages None

Comments on above

Monitoring Yes

Allocations Contracting parties will "ensure efficient water

quality protection and sustainable water use ..." "[That] means on the criteria of a stable, environ-

mentally sound development ..."

Enforcement None

Unequal power relationship Not available

Information sharing Yes

Conflict resolution UN/third party

Method for water division

Negotiations

Additional comments Those having "considerable part" of the basin are

None

those with greater than 2000 km² of basin area within the country's border. The treaty moves towards a comprehensive "water management" instead of focusing on a single aspect of the basin

DOURO BASIN

Treaty title Convention between Spain and Portugal to regu-

late the hydroelectric development of the interna-

tional section of the River Douro

Basins involved Douro, Huebra, Esla, Tormes

Main basinDouroDate signed08/11/1927SignatoriesBilateralPartiesSpain, PortugalPrincipal focusHydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations Each state receives the exclusive right to use the

water that flows between set areas. Both states "undertake mutually to not reduce the volume of water which should reach the beginning of each

zone of utilisation ..."

Enforcement Council **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Council **Method for water division** Complex/clear

Negotiations

Additional comments

Treaty title Convenio entre España y Portugal para regular el

aprovechamiento hydroelectrico de los tramos in-

ternacionales de rio Duero y de sus afluentes

Basins involvedDouroMain basinDouroDate signed07/16/1964SignatoriesBilateralPartiesSpain, PortugalPrincipal focusHydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharingNoneConflict resolutionCouncil

Method for water division

Negotiations

Additional comments ONLY hydroelectric uses. Nothing else discussed.

Complex but clear

The commission sets the distribution of water between the countries – namely, diversions that would reduce hydroelectric output. The "Limits Commission" also has a say. The International Consortium exists for ONLY industrial/economic

collaboration on the rivers

DURANCE BASIN

Treaty title Treaty of Peace with Italy, signed at Paris, on 10

February 1947

Basins involved Lake of Mont Cenis

Main basinDuranceDate signed02/10/1947SignatoriesMultilateral

Parties Italy, France (primarily), and the Allied Powers

Principal focus Hydropower

Non-water linkages Political concessions

Comments on above Italy was to hand over archives regarding territory

ceded in 1860; railway concessions; others

Monitoring Not available

Allocations Use of hydropower from district of Mont Cenis

Enforcement Force/threat of Force

Unequal power relationship Yes

Information sharing Not available

Conflict resolution None **Method for water division** None

Negotiations

Additional comments Naturally the "threat of force" is the enforcement

here because Italy's involvement in World War II

ended with this treaty

EBRO BASIN

Treaty title Agreement between the government of the French

Republic and the Spanish government relating to

Lake Lanoux

Basins involved Lake Lanoux, Carol, Font-Vive

Main basinEbroDate signed07/12/1958SignatoriesBilateralPartiesFrance, SpainPrincipal focusHydropowerNon-water linkagesNone

Comments on above

Monitoring Yes

Allocations France agrees to return minimum 20 MCM to the

Carol river annually

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution UN/third party **Method for water division** Complex/clear

Negotiations

Additional comments Water deliveries based on a water year, not a cal-

endar year

ELBE BASIN

Treaty title Convention ... on the international commission for

the protection of the Elbe

Basins involvedElbeMain basinElbeDate signed10/08/1990

Signatories Bilateral

Parties Germany, Slovak Federative Republic

Council

None

Principal focus Pollution
Non-water linkages None

Comments on above

Monitoring Yes

Allocations
Enforcement Council
Unequal power relationship
Information sharing Yes

Conflict resolution
Method for water division

Negotiations

Additional comments

EUPHRATES BASIN

Treaty title Agreement between Iraq and Kuwait concerning

the supply of Kuwait with fresh water ...

Basins involvedUnspecifiedMain basinEuphratesDate signed02/11/1964SignatoriesBilateralPartiesIraq, KuwaitPrincipal focusWater supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Kuwait receives 120 million imperial gallons per

day

Enforcement Not available

Unequal power relationship Yes

Information sharingNot availableConflict resolutionNot availableMethod for water divisionComplex/clear

Negotiations Were to continue regarding larger

water transfers

Additional comments

Treaty title Agreement ... concerning the use of frontier

watercourses

Basins involved Bnava Suta, Qurahtu, Gangir, Alvend, Kanjan

Main basinEuphratesDate signed03/06/1975SignatoriesBilateral

Parties Iran, Iraq
Principal focus Water supply

Non-water linkages None

Comments on above Part of a lengthy treaty in which borders were dis-

cussed, as well as mapping

Monitoring Not available

Allocations Flows of the Bnava Suta, Qurahtu, and Gangir

rivers are divided equally. Flows of the Alvend, Kanjan Cham, Tib, and Duverij will be divided based on a 1914 commission report on the Ottoman/Iranian border "and in accordance with custom"

Enforcement Council **Unequal power relationship** No

Information sharing None

Conflict resolution Other government agency

Method for water division

Negotiations

Additional comments

GAMBIA BASIN

Treaty title Agreement between Great Britain and France

Equal parts

Basins involvedGambiaMain basinGambiaDate signed08/10/1889SignatoriesBilateral

Parties Great Britain, France

Principal focus Navigation
Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot availableMethod for water divisionUnknown

Negotiations

Additional comments The treaty established that France "had complete

control of the Mellacoree River and Great Britain

of the Scarcies"

Treaty title Exchange of letters between Great Britain and

France

Basins involvedGambiaMain basinGambia

Date signed 02/04/1895 **Signatories** Bilateral

Parties Great Britain, France

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations The amounts under previous use by local riverain

inhabitants was to be continued (apparently not

measured, however)

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot availableMethod for water divisionUnknown

Negotiations Negotiations were over state borders; the question

of local inhabitants (who did not care about state borders) and their previous use of the river arose and was dealt with. Apparently water use was expected to be low. If not, no provisions are listed

Additional comments Established that people dwelling near the river on

"the right bank were given the right to use the river within previous limits, and subject to the laws of Sierra Leone concerning the navigation and use

of water"

Treaty title Agreement between Great Britain and France

Basins involvedGambiaMain basinGambiaDate signed10/19/1906SignatoriesBilateral

Parties Great Britain, France

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot availableMethod for water divisionNot available

Negotiations

Additional comments Local inhabitants were given the right to use pas-

ture and arable lands, springs and watering places in prior use even though a border separated them

after the new borders were established

Treaty title Exchange of notes constituting an agreement ...

respecting the boundary between Sierra Leone and

French Guinea

Basins involvedGambiaMain basinGambiaDate signed09/04/1913SignatoriesBilateral

Parties Great Britain, France

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot availableMethod for water divisionNot available

Negotiations

Additional comments Provided conditional approval for future hydro-

power exploits. Also provided water rights to inhabitants on either side of the river even in the parts of the river entirely controlled by France

Treaty title Convention relating to the creation of the Gambia

River Basin Development Organization

Basins involvedGambiaMain basinGambiaDate signed06/30/1978SignatoriesMultilateral

Parties Gambia, Senegal, Guinea

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionNot available

Negotiations

Additional comments Created several levels of organizations relating to

the Gambia river: Council of Ministers, The High Commission, and the Permanent Water Commis-

sion

GANGES BASIN

Treaty title Agreement between the British government and

the Patiala state regarding the Sirsa branch of the

Western Jumna canal

Basins involvedGangesMain basinGangesDate signed08/29/1893SignatoriesBilateral

Parties Great Britain, India (Patiala)

Principal focus Water supply Non-water linkages Money

Comments on above Compensation for dam-flooded structures

Monitoring Yes

Allocations British government has sole control over the water

supply in the canal "shares of water supply [are determined based on] the proportions of the areas commanded by the entire system in British and

Patiala territory, respectively"

Enforcement Not available

Unequal power relationship Yes Information sharing Yes Conflict resolution None

Method for water division Complex but clear

Negotiations Negotiations with the British Empire again seem

one-sided. Typical imperial-colonial relations

Additional comments British had almost total control of the situation.

Irrigation was provided by the British for the

Patiala peoples

Treaty title Agreement between the government of India and

the government of Nepal on the Kosi project

Basins involvedKosiMain basinGangesDate signed04/25/1954SignatoriesBilateralPartiesIndia, NepalPrincipal focusHydropowerNon-water linkagesMoney

Comments on above Compensation for flooded lands, divided into 4

categories: Cultivated Lands, Forest, Village (im-

movable property), and Waste Land

Monitoring Yes

Allocations 50% of hydropower generated goes to each party.

India can regulate all the water supply, "without prejudice to the right of [Nepal] to withdraw for irrigation or any other purpose in Nepal such sup-

plies of water, as may be required from time to

time ...'

Enforcement None **Unequal power relationship** Yes **Information sharing** Yes

Conflict resolution
Method for water division

Negotiations

Additional comments

UN/third party Complex/clear

Treaty title Agreement between [Nepal] and [India] on the

Gandak irrigation and power project

Basins involved Gandak, Bagmati

Main basinGangesDate signed12/04/1959SignatoriesBilateralPartiesIndia, NepalPrincipal focusHydropowerNon-water linkagesOther linkages

Comments on above Hydropower facilities, small irrigation canals (India

will contribute to the cost of construction of canals

smaller than 20 cusecs)

Monitoring Yes

Allocations Enough water to irrigate 40,000 acres (20 cusecs

minimum) goes to Nepal. Similar amount goes to India, except the water will irrigate 103,500 acres. India has minimum 5,000 kW usage of the 15,000 kW plant, but India may charge an agreed-upon

rate for the electricity.

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Method for water divisionUN/third party
Complex/clear

Negotiations

Additional comments Nepal will continue to have the right to withdraw

for irrigation "such supplies of water, as may be required from time to time ..." Note that this wording is verbatim from the 1954 agreement. Shortages will be pro-rated across both countries

Treaty title Revised agreement between [Nepal] and [India] on

the Kosi project

Basins involvedKosiMain basinGangesDate signed12/19/1966

Signatories Bilateral **Parties** Nepal, India **Principal focus** Hydropower

Land Non-water linkages

Comments on above Land required for foreseen and unforeseen needs

will be compensated by India. Foreseen require-

ments will be leased for 199 years

Monitoring Yes

Allocations Nepal "shall have every right to withdraw for irri-

> gation and for any other purpose in Nepal water from the Kosi river and from [the basin] as may be required from time to time." India regulates the

supplies in the river to produce power

Not available **Enforcement**

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Other government agency

Method for water division Unclear

Negotiations

Additional comments Stone, gravel, ballast, and timber compensated by

India to Nepal. India pays compensation to Nepal for the loss of the land and immovable property

flooded by the project

Treaty title Statute of the Indo-Bangladesh Joint Rivers Com-

mission

Basins involved Ganges-Brahmaputra

Main basin Ganges Date signed 11/24/1972 **Signatories** Bilateral

Parties India, Bangladesh Water supply **Principal focus** None

Non-water linkages

Comments on above

Not available Monitoring

Allocations

Enforcement Not available

Unequal power relationship Yes

Not available **Information sharing** Conflict resolution Not available None

Method for water division

Negotiations

Additional comments Created a commission to "maintain liaison between

the participating countries in order to ensure the most effective joint efforts in maximising the benefits from common river systems to both the countries," among other flood control responsibilities

Treaty title Agreement between [Bangladesh] and [India] on

sharing of the Ganges waters at Farakka and on

augmenting its flows

Basins involvedGangesMain basinGangesDate signed11/05/1977SignatoriesBilateral

PartiesIndia, BangladeshPrincipal focusWater supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations 75% of the average historic flows will be allocated;

these Q-values are in 10-day increments from 1948–1973. Each 10-day period has its own allocations. India receives approx. 40% of that 75%

Enforcement None **Unequal power relationship** Yes **Information sharing** Yes

Conflict resolution Other government agency

Method for water division Complex/clear

Negotiations Treaty is to last for five years. No one has indicated

if India held strictly to the agreement or not. There are provisions that essentially exclude third party

negotiators.

Additional comments If the flow dropped below 80% of the expected

flow, Bangladesh will never receive less than 80% of that portion. If the flow exceeds the 75%, "the water shall be shared in proportion." India has the option to use 200 cusecs below the barrage but no

more

Treaty title Agreement between [Nepal] and [India] on the

renovation and extension of Chandra canal, pumped canal, and distribution of the Western

Kosi canal

Basins involvedKosiMain basinGangesDate signed04/07/1978SignatoriesBilateralPartiesNepal, IndiaPrincipal focusWater supplyNon-water linkagesMoney

Comments on above Money for the repairs and renovations provided by

India in part. Nepal provides in-kind labour, sur-

veying, and other efforts

Monitoring Yes

Allocations Nepal: 300 cusecs (in addition to the 64 already al-

located). Nepal will acquire land beyond a certain

point for use in the new distribution centre

Enforcement Not available

Unequal power relationship Yes Information sharing Yes Conflict resolution None

Method for water division Con

Negotiations

Complex/clear

Additional comments This treaty is for maintenance and new construc-

tion. The Chandra canal will be restored (by removing earth from the channel) to its previous 11 cumec capacity. Repairs to the headworks will also

take place

Treaty title Meeting of the Joint Rivers Commission

Basins involvedGangesMain basinGangesDate signed07/20/1983SignatoriesBilateral

Parties India, Bangladesh Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations India: 39%. Bangladesh: 36%. Unallocated: 25%

(and it was to remain unallocated)

EnforcementNoneUnequal power relationshipYesInformation sharingYesConflict resolutionNone

Method for water division Complex but clear

Negotiations The India-Bangladesh JRC is to investigate and

study schemes to augment dry-season flow of the Ganges in an economic, feasible manner within

three years

Additional comments The treaty was to last only 18 months. Flood fore-

casting and warning arrangements were also dis-

cussed

Treaty title Treaty between [India] and [Bangladesh] on shar-

ing of the Ganga/Ganges waters at Farakka

Basins involvedGangesMain basinGangesDate signed12/12/1996SignatoriesBilateral

PartiesIndia, BangladeshPrincipal focusWater supply

Non-water linkages None

Comments on above

Monitoring Yes

Enforcement None
Unequal power relationship
Information sharing Yes

Conflict resolution Not available **Method for water division** Complex/clear

Negotiations

Allocations

Additional comments Treaty signed on the 25th anniversary of the 1971

war in Pakistan that resulted in the creation of

Bangladesh

GASH BASIN

Treaty title Notes exchanged ... respecting the regulation of

the utilization of the waters of the river Gash

Basins involvedGashMain basinGashDate signed06/15/1925SignatoriesBilateral

Parties Great Britain, Italy
Principal focus Water supply
Non-water linkages Money

Comments on above Sudan would pay Eritrea a share of the income

from lands irrigated by the Gash and in the Gash

delta

Monitoring Not available

Allocations Eritrea would have use of 65 MCM. Eritrea could

use half of the flow up to 17 CM/sec each, the

excess going entirely to Kassala province

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionComplex but clear

Negotiations

Additional comments Some water required to be left in the channel for

downstream riparians. Eritrea was to receive 20% of all income over £50,000 from the Gash lands.

Eritrea received a maximum of 65 MCM

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Treaty title Letters between the irrigation adviser and director

of irrigation, Sudan government, and the controller

of agriculture, Eritrea

Basins involvedGashMain basinGashDate signed04/18/1951SignatoriesBilateralPartiesSudan, EritreaPrincipal focusWater supply

Non-water linkages None

Comments on above Not known if this supersedes money due by previ-

ous agreement

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionComplex but clear

Negotiations

Additional comments Reaffirmed previous irrigation amounts; Eritrea

received a maximum of 65 MCM as before; now, the agreement was signed as independent nations

GREAT LAKES BASIN

Treaty title Treaty between Great Britain and the United

States relating to boundary waters and boundary

questions

Basins involved Great Lakes, Columbia, Niagara

Main basinGreat LakesDate signed05/05/1910SignatoriesBilateral

Parties USA, Great Britain (Canada)

Principal focus Water supply

Non-water linkages None **Monitoring** Yes

Allocations US may divert water above Niagara Falls (hydro-

power only) up to 20,000 cfs. UK (Canada) may divert (hydropower only) up to 36,000 cfs. Diversions set so the level of Lake Erie would not be affected. Both sides agree not to affect the natural

flow of boundary rivers

Enforcement None **Unequal power relationship** No

Information sharingYesConflict resolutionCouncilMethod for water divisionComplex/clear

Negotiations Disagreements that the Commission is unable to

resolve are referred to an umpire, as prescribed by

the Hague Convention (18 October 1907)

Additional comments Smaller rivers also had water allocated for irriga-

tion: St Mary and Milk rivers and their tributaries (in Montana, Alberta, and Saskatchewan) are treated as a single river. During the irrigation season (between 4/1 and 10/31), the USA gets prior appropriations of 500 cfs on the Milk River, or 75% of natural flow at that time, and Canada gets a prior appropriation of 500 cfs, or 75% of the natural flow at that time, from the St Mary river

Treaty title Agreement between the United States of America

and Canada to regulate the level of Lake of the

Woods

Basins involved Great Lakes, Rainy river

Main basinGreat LakesDate signed02/24/1925SignatoriesBilateral

Parties Great Britain (Canada), United States

Principal focus Flood control
Non-water linkages Money

Comments on above Canada paid the US \$275,000 for protective works

and measures necessary to regulate the lake levels.

Additional costs will be split equally

MonitoringYesEnforcementCouncilUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionNot available

Negotiations

Additional comments

Treaty title Exchange of notes between ... the United States of

America and ... Canada constituting an Agreement regarding the development of certain por-

tions ...

Basins involvedSt LawrenceMain basinGreat LakesDate signed11/07/1940SignatoriesBilateral

Parties United States, Canada

TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION 176

Principal focus Hydropower Non-water linkages Money

Comments on above \$1,000,000 for "preliminary engineering and other

investigations" paid by the United States

Monitoring Yes

Allocations An additional 5,000 cfs allocated for hydropower

to Canada

Complex/clear

Enforcement None **Unequal power relationship** No **Information sharing** Yes **Conflict resolution** None

Method for water division

Negotiations

Additional comments

Treaty title Exchange of notes between the government of the

United States and the government of Canada ...

concerning temporary diversion for power ...

Basins involved Niagara Great Lakes Main basin 05/20/1941 Date signed **Signatories** Bilateral **Parties** USA. Canada **Principal focus** Hydropower Non-water linkages None

Comments on above

Monitoring Not available

Allocations An additional 5,000 cfs for use in Canada to aug-

ment its war effort, plus 3,000 cfs offered by the US

Enforcement Not available

Unequal power relationship No

Information sharing Not available

Conflict resolution None

Method for water division Complex/clear

Negotiations

Additional comments

Exchange of notes constituting an agreement be-Treaty title

> tween the government of the United States and the government of Canada relating to additional ...

Basins involved Niagara Main basin Great Lakes Date signed 11/27/1941 **Signatories** Bilateral **Parties** USA, Canada **Principal focus** Hydropower

Non-water linkages None **Comments on above**

Monitoring Not available

Allocations Canada receives an additional 6,000 cfs for hydro-

Complex but clear

power generation and the US receives an addi-

tional 7,500 cfs for hydropower

Enforcement Not available

Unequal power relationship No

Information sharing Not available

Conflict resolution None

Method for water division

Negotiations

Treaty title

Additional comments

Treaty between the United States of America and

Canada relating to the uses of the waters of the

Niagara river

Basins involvedNiagaraMain basinGreat LakesDate signed02/27/1950SignatoriesBilateral

Parties United States, Canada

Principal focusHydropowerNon-water linkagesMoney

Comments on above Each state agrees to bear 50% of the costs of con-

struction

None

Monitoring Not available

Allocations Between certain dates and times, Niagara Falls is

allocated 100,000 cfs and at others, it is allocated

50,000 cfs. Power generated is split 50% apiece

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionCouncil

Negotiations

Additional comments

Method for water division

Treaty title Exchange of notes constituting an agreement be-

tween Canada and the United States of America

relating to the St Lawrence Seaway project

Basins involvedSt LawrenceMain basinGreat LakesDate signed06/30/1952SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropowerNon-water linkagesMoney

178 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

Comments on above Canada agrees to contribute \$15 million towards

the cost of channel enlargement

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationshipNoInformation sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations

Additional comments Both parties agree to equally split the costs of all

development

Treaty title Exchange of notes constituting an agreement be-

tween the United States and Canada relating to the establishment of the St Lawrence River joint ...

Basins involvedSt LawrenceMain basinGreat LakesDate signed11/12/1953SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship No

Information sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations Created a joint board of engineers to oversee/assist

in the construction of works agreed to in the 29

October 1952 treaty

Additional comments

Treaty title Exchange of notes constituting an agreement for

the construction of a temporary cofferdam at

Niagara

Basins involvedNiagaraMain basinGreat LakesDate signed03/21/1969SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropowerNon-water linkagesOther linkages

Comments on above Costs of on-site data collection and dam construc-

tion will be borne based on previous agreements

Monitoring Yes

Allocations

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionNone

Method for water division

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

Complex but clear

tween Canada and the United States of America for the temporary diversion for power purposes ...

Basins involvedNiagaraMain basinGreat LakesDate signed03/21/1969SignatoriesBilateralPartiesUSA, CanadaPrincipal focusHydropowerNon-water linkagesOther linkages

Comments on above Equal share in additional hydropower generation

Monitoring Yes

Allocations While the temporary cofferdam is in place, be-

tween 8,000 and 9,000 cfs will be diverted for ad-

ditional power generation

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionNoneMethod for water divisionEqual parts

Negotiations

Additional comments Each power authority must contribute \$385,500

in national currency for the construction of the

cofferdam

GROUNDWATER BASIN

Treaty title Convention regarding the water supply of Aden

between Great Britain and the Sultan of Abdali

Basins involved

Main basinGroundwaterDate signed04/11/1910SignatoriesBilateral

Parties Great Britain, Aden (Yemen)

Principal focus Water supply Non-water linkages Money

Comments on above 3,000 rupees paid per month for upkeep and "rent"

of the land

Monitoring Not available

Allocations

Not available Enforcement

Unequal power relationship

Information sharing Not available

Conflict resolution None Method for water division None

Negotiations

Additional comments Wells to be dug at a suitable site and carried by

canal for use in perpetuity by the British. One of

the early groundwater agreements

GUADIANA BASIN

Treaty title Convenio y Protocola Adicional Para Regular el

> Uso y aprovechamiento hidraulico de los tramos internacionales de los rios Mi-o, Limia, Tajo ...

Mi-o, Guadiana

Basins involved Main basin Guadiana **Date signed** 05/29/1968 **Signatories** Bilateral **Parties** Spain, Portugal **Principal focus** Hydropower

Non-water linkages None

Comments on above Construction authority is given to both parties on

either river bank for cooperative efforts

Yes Monitoring

Allocations

Enforcement Council

Unequal power relationship

Information sharing Yes **Conflict resolution** Council

Method for water division Complex but clear

Negotiations

Additional comments A second monitoring body exists separate from the

Commission

Treaty title Segundo protocolo

Basins involved Mi-o Main basin Guadina Date signed02/12/1976SignatoriesBilateral

Parties Spain and Portugal Principal focus Hydropower

Non-water linkages None

Comments on above Both countries will utilize companies from each

country where possible for construction on the

river

Monitoring Yes

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments This treaty is an addendum to the 1968 treaty re-

garding only the Rio Mi-o, and not signed at the

same time

HELMAND BASIN

Treaty title Terms of reference of the Helmand River Delta

Commission and an interpretive statement relative

thereto, agreed by conferees of ...

Basins involvedHelmandMain basinHelmandDate signed09/07/1950SignatoriesBilateralPartiesAfghanistan, Iran

Principal focus

Algnanistan, II

Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations To be determined by a third-party commission

Enforcement None

Unequal power relationship Not available

Information sharing Yes

Conflict resolutionNot available **Method for water division**Unclear

Negotiations

Additional comments The Helmand River Delta Commission was cre-

ated and given the task to measure and divide the

river flows between the two signatories

INDUS BASIN

Treaty title Articles of agreement between the Edur Durbar

and the British government

Basins involvedHathmateeMain basinIndusDate signed07/20/1874SignatoriesBilateral

Parties Great Britain, India (Edur)

Principal focus Water supply
Non-water linkages Other linkages

Comments on above Double boat for passage through flooded areas

provided by the British; some small bits of land

Monitoring Yes

Allocations Edur gets one half of the allocated water, and the

British get one half for irrigation of their land as

Unequal power relationship
Yes
Information sharing
Well
Yes
Yes

Conflict resolution Other government agency

Method for water division Equal parts

Negotiations Maharajah of Edur agreed to the construction of

a weir. The British agreed to leave an outlet for water supply on one side. Maharajah suggested

another site but it was found unsuitable

Additional comments If any houses were flooded, the British would make

up the costs according to an estimate by the project

engineer

Treaty title Amended terms of agreement between the British

government and the State of Jind, for regulating

the supply of water for irrigation ...

Basins involvedIndusMain basinIndusDate signed09/16/1892SignatoriesBilateral

Parties India (Jind), Great Britain

Principal focus Water supply Non-water linkages Money

Comments on above "Payment" for water/delivery

Monitoring Not available

Allocations Jind received water sufficient to irrigate 50,000

acres but the flow had the capacity to irrigate

60,000 acres. No storage capacity

Enforcement Force/threat of force

Unequal power relationship Yes

Information sharingNot availableConflict resolutionNot availableMethod for water divisionComplex but clear

Negotiations Additional comments Almost everything was done by executive order The payments for the water were established by computed costs to irrigate similar states/areas in the British Empire. Cost was approximately

Rs105.500 in 1892

Treaty title Final working agreement relative to the Sirhind

canal between Great Britain and Patiala, Jind and

Nabha

Basins involved Indus (Sirhind Canal)

Main basinIndusDate signed02/23/1904SignatoriesMultilateral

Parties Great Britain, India (Patiala, Jind, Nabha)

Principal focus Water supply

Non-water linkages Money

Comments on above Operating expenses for the supply reservoir, com-

pensation for accidental damage, if it occurs

Monitoring Yes

Allocations Patiala receives 82.6% of the water. Nabha re-

ceives 8.8%. Jind receives 7.6%. British villages receive water sufficient to irrigate the same proportion of its lands as of other villages nearby

Enforcement None **Unequal power relationship** Yes **Information sharing** Yes

Conflict resolution Other government agency

Method for water division

Negotiations

Complex but clear

Additional comments If the whole flow allocations cannot be met, the engineer may reduce flows proportionally, or he

engineer may reduce flows proportionally, or he may deliver full proportion to one, then shut it off entirely while the others receive their full allot-

ments

Treaty title Inter-dominion agreement between the govern-

ment of India and the government of Pakistan, on

the canal water dispute between ...

Basins involvedIndusMain basinIndusDate signed05/04/1948SignatoriesBilateralPartiesIndia, Pakistan

Principal focus Water supply Non-water linkages Money

Comments on above Seignorage fees paid to India

Monitoring Not available

Allocations India was to reduce flow from upper Indus basin

rivers progressively, to allow Pakistan to "develop areas where water is scarce and which were underdeveloped in relation to Parts of West Punjab"

Enforcement None

Unequal power relationshipYesInformation sharingYesConflict resolutionNoneMethod for water divisionUnclear

Negotiations

Additional comments Also called the "Simla Agreement"

Treaty title Indo-Pakistan agreement (with appendices) on

East Pakistan border disputes

Basins involvedIndusMain basinIndusDate signed10/23/1959SignatoriesBilateralPartiesIndia, PakistanPrincipal focusWater supply

Non-water linkages Land

Comments on above India grants some land for the Karnafuli dam

Monitoring No

Allocations India's land was flooded in exchange for "claims ...

regarding the loss, if any, caused by the flooding ...

should be settled

EnforcementNoneUnequal power relationshipYesInformation sharingNoneConflict resolutionCouncilMethod for water divisionNone

Negotiations Each country agreed not to train border rivers to

cut into the territory of the other. Outrageous re-

ports to the press were also agreed to stop

Additional comments The treaty created borders along rivers. Appendi-

ces set up "ground rules" for settlement of border disputes incurred in the field by military personnel. "Owing to a variety of reasons there have been occasional [gunshots] across the border." Recognizing the presence of hostility created a means with which to defuse border hostilities. Meetings between District Magistrates will take place in the

second week of the month

Treaty title Agreement between Pakistan and India on West

Pakistan-India border disputes

Basins involvedIndusMain basinIndusDate signed01/11/1960SignatoriesBilateralPartiesPakistan, IndiaPrincipal focusWater supply

Non-water linkages Land

Comments on above Some border disputes were resolved by this docu-

ment; each side relinquished claim to a section of

disputed territory, although not all of it

Monitoring Yes

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Other government agency

Method for water division None

Negotiations Pakistan relinquished claim to Chak Ladheke and

India gave up their claim to three villages. The boundary at the Hussainiwala headworks was set firmly, and the boundary at the Suleimanke headworks was also agreed upon. A fifth boundary dis-

pute was not resolved

Additional comments The borders are ruled not to change in the event

the river changes course. That is, in spots, the river could be entirely in one state or another. Regular meetings at the border are also provided for

Treaty title Indus Waters Treaty

Basins involvedIndusMain basinIndusDate signed09/19/1960SignatoriesBilateralPartiesIndia, PakistanPrincipal focusWater supplyNon-water linkagesMoney

Comments on above £62,060,000 as replacement costs of irrigation ca-

nals in regions formerly irrigating from Eastern rivers. Money paid to India if the 31 March 1970 expiration date is extended for up to three years.

onpira.

Monitoring Yes

Allocations India: 100% of Eastern rivers, but some deliveries

from those rivers will continue until 31 March 1970 or later if extended. Pakistan: 100% of Western

rivers

Enforcement Council

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Council, then a neutral third party

Method for water division Complex but clear

Negotiations Engineering plans were used first, then found

lacking until political efforts could direct them.

Third-party negotiators were necessary

JORDAN BASIN

Treaty title Agreement between the Republic of Syria and the

Hashemite Kingdom of Jordan concerning the uti-

lization of the Yarmuk waters

Basins involvedYarmukMain basinJordanDate signed06/04/1953SignatoriesBilateralPartiesJordan, SyriaPrincipal focusWater supplyNon-water linkagesOther linkages

Comments on above Syria gets 75% of hydropower (not less than 3 MW

mid-April to Mid-October)

Monitoring Yes

Allocations No less than 10 cm average shall flow from the

dam, "for the irrigation of lands in Jordan and for other Jordanian schemes ..." "Syria shall retain [rights to use] all springs ... within its territory ... with the exception of waters welling up above the

dam below the 250-metre level"

Enforcement None

Unequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionUnclear

Negotiations Syria bears 5% of the cost of the Maqarin installa-

tion and provides 20% of the workers

Additional comments Jordan has the right to use the reservoir overflow

and the generating station at Maqarin (and of course the Adasiya station, within Jordanian territory). Also, Jordan has "the right to use water superfluous to Syrian needs for its own purposes

within Jordanian frontiers"

Treaty title Johnston Negotiations

Basins involved Jordan

Main basinJordanDate signed12/31/1955

Signatories Multilateral (unsigned)
Parties Israel, Jordan, Syria, Lebanon

Principal focus Water supply Non-water linkages Money

Comments on above US agreed to cost-share regional water projects if

an agreement was reached

Monitoring No

Allocations Syria: 132 MC (10.3%). Jordan: 720 MCM (56%).

Israel: 400 MCM (31.0%). Lebanon: 35 MCM. Based on area of irrigable land in each country

Enforcement Economic

Unequal power relationship Yes **Information sharing** None

Conflict resolution UN/third party **Method for water division** Complex but clear

Negotiations Johnston tried to separate resource issues from

politics - and failed

Additional comments

Treaty title Treaty of peace between [Israel] and [Jordan],

done at Arava/Araba crossing point ...

Basins involved Jordan, Yarmuk, Araba/Arava groundwater

Main basinJordanDate signed10/26/1994SignatoriesBilateralPartiesIsrael, JordanPrincipal focusWater supplyNon-water linkagesOther linkages

Comments on above

Monitoring Yes

Allocations Yarmuk – Summer: Israel 12 MCM, Jordan gets

the rest. Winter – Israel 13 MCM, Jordan gets the rest. Israel also takes 20 MCM, but will be returned later. Jordan – Summer: Israel maintains current use, equal to Jordan's. Winter: Jordan 20 MCM of the floods, both can pump flood excess to storage

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionComplex/clear

Negotiations

Additional comments Jordan also receives desalinated 10 MCM of ap-

prox. 20 MCM of saline springs. The two parties

will cooperate to find an additional 50 MCM of drinkable water. Israel can take 10 MCM over and above its current groundwater withdrawals, provided such withdrawals are hydrogeologically feasible and do not harm current Jordanian uses

Treaty title Israeli-Palestinian interim agreement on the West

Bank and the Gaza Strip

Basins involvedJordanMain basinJordanDate signed09/28/1995SignatoriesBilateral

Parties Israel, Palestine autonomy

Principal focus Water supply Non-water linkages Money

Comments on above Israel bears capital development costs for new

water deliveries

Monitoring Yes

Allocations Israel recognizes Palestinian water rights

Enforcement Council
Unequal power relationship
Information sharing Yes
Conflict resolution UN/third party

Method for water division Complex/clear

Negotiations From Israel, Palestinians get additional water: He-

bron, 1 MCM; Ramallah, 0.5 MCM; Salfit, 0.6 MCM; Nablus, 1 MCM; Jenin, 1.4 MCM; Gaza, 5 MCM. Palestinians provide themselves with 2.1 MCM to Nablus; 17 MCM (Eastern aquifer) to

Hebron, Bethlehem, Ramallah

Additional comments Unsettling that they are looking for more en-

gineering solutions to a badly overdrawn water

budget: that 17 MCM cannot be sustainable

LAKE CHAD BASIN

Treaty title Convention and statutes ... Lake Chad Basin

Basins involvedLake ChadMain basinLake ChadDate signed05/22/1964SignatoriesMultilateral

Parties Cameroon, Chad, Niger, Nigeria

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Council **Unequal power relationship** No **Information sharing** Yes Council **Conflict resolution** Method for water division None

Negotiations

Additional comments It is a treaty primarily concerned with economic

development inside the basin. The Commission prepares general regulations, coordinates the research activities of the four states, examines their development schemes, makes recommendations and maintains contact among the four states

LAKE TITICACA BASIN

Treaty title Exchange of notes between Peru and Bolivia es-

tablishing a joint commission for study of ... joint

use of the waters of Lake Titicaca

Basins involved Lake Titicaca Main basin Lake Titicaca Date signed 04/20/1955 **Signatories** Bilateral **Parties** Peru, Bolivia **Principal focus** Hydropower None Non-water linkages

Comments on above

Not available Monitoring

Allocations

Enforcement Not available Unequal power relationship Not available

Information sharing Yes

Conflict resolution Not available

Method for water division None

Negotiations

Additional comments Created a commission to examine economic op-

portunities

Treaty title Agreement between Bolivia and Peru concerning a

preliminary economic study of the joint utilization

of the waters of Lake Titicaca

Basins involved Lake Titicaca Main basin Lake Titicaca **Date signed** 02/19/1957 **Signatories** Bilateral **Parties** Peru, Bolivia **Principal focus** Hydropower None

Non-water linkages

Comments on above

Monitoring No

Allocations

Enforcement Not available Not available Unequal power relationship

Information sharing Yes

Not available **Conflict resolution**

Method for water division

Negotiations

Additional comments "An estimate of the electricity consumption in both

countries so that the construction of one or more hydroelectric stations capable of meeting the demand efficiently and equitably can be considered

...,,

None

MARICA BASIN

Treaty title Agreement between the People's Republic of

Bulgaria and the Republic of Turkey concerning

cooperation ...

Basins involved Maritsa/Marica, Tundzha, Veleka, Rezovska

Main basin Marica **Date signed** 10/23/1968 **Signatories** Bilateral

Parties Turkey, Bulgaria **Principal focus** Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

None **Enforcement**

Unequal power relationship Not available

Information sharing Yes Conflict resolution Council Method for water division None

Negotiations

Additional comments Created a commission and a means to share data

and cooperate on developing the common rivers

MEKONG BASIN

Treaty title Convention between Laos and Thailand for the

supply of power

Basins involved Mekong, Nam Pong, Nam Ngum

Main basinMekongDate signed08/12/1965SignatoriesBilateralPartiesLaos, ThailandPrincipal focusHydropowerNon-water linkagesMoney

Comments on above Payment for any power transferred

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Not available **Method for water division** Not available

Negotiations

Additional comments The two states agreed to interconnect their electric

grids between two hydropower plants

Treaty title Joint declaration of principles for utilization of the

waters of the lower Mekong basin, signed by [Cambodia], [Laos], [Thailand], and [Vietnam]

Basins involvedMekongMain basinMekongDate signed01/31/1975SignatoriesMultilateral

Parties Cambodia, Laos, Thailand, Vietnam

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionNot available

Negotiations

reinforcement of the 1957 creation of the Mekong

Committee

192 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

Treaty title Agreement on the cooperation for the sustainable

development of the Mekong river basin

Basins involvedMekongMain basinMekongDate signed04/05/1995SignatoriesMultilateral

Parties Cambodia, Lao PDR, Thailand, Vietnam

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations The treaty provides for the Joint Committee to

"prepare and propose ... Rules for Water Utiliza-

tion and Inter-Basin Diversions ..."

Enforcement None

Unequal power relationship Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionNot available

Negotiations

Additional comments

MEMEL BASIN

Treaty title Convention between the German Reich and the

Lithuanian Republic regarding the maintenance and administration of the frontier waterways ...

Basins involved Memel, Kurische Haff

Main basinMemelDate signed01/29/1928SignatoriesBilateral

Parties Germany, Lithuania

Principal focus Flood control

Non-water linkages None

Comments on above The parties agreed to divide the costs of ice-

breaking: 80% to Germany, 20% to Lithuania

Monitoring Ye

Allocations Germany is entitled to the use of Wystit lake for

hydropower

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Method for water divisionUN/third party
Not available

Negotiations

Additional comments

MEUSE BASIN

Treaty title Exchange of notes constituting an agreement con-

> cerning the treaty of 12 May 1863 to regulate the diversion of water from the River Meuse and the

Basins involved Meuse Main basin Meuse Date signed 02/24/1961 **Signatories** Bilateral

Parties Netherlands, Belgium

Principal focus Water supply Non-water linkages Money

Comments on above Costs associated with dismantling lock 19 fall to the

Netherlands

Monitoring No

Allocations

Enforcement None Unequal power relationship No

Information sharing Not available

Conflict resolution None

Method for water division Not available

Negotiations

Additional comments The treaty is more about rebuilding diversion

works but apparently there is no problem with

doing so

MIRIM LAGOON BASIN

Treaty title Exchange of notes constituting an agreement ...

for the development of the Mirim lagoon

Basins involved Mirim lagoon Main basin Mirim lagoon Date signed 04/26/1963 **Signatories** Bilateral **Parties** Brazil, Uruguay

Principal focus Navigation None

Non-water linkages

Comments on above

Monitoring No

Allocations

Enforcement None

Not available **Unequal power relationship**

Information sharing None

Conflict resolution Other government agency Method for water division

Negotiations

None

Additional comments

Development and navigation concerns were para-

mount

NAATAMO BASIN

Treaty title Agreement between [Finland] and [Norway] on the

transfer from the course of the Näätämo (Neiden)

river to the course of the Gandvik river ...

Basins involved Näätämo. Gandvik

Main basinNäätämoDate signed04/25/1951SignatoriesBilateralPartiesNorway, FinlandPrincipal focusHydropower

Non-water linkages Money

Comments on above N Kr 15,000 paid to Finland as compensation for

lost power generation

Monitoring Not available

Allocations Water diverted between basins for power genera-

tion in Norway, which agrees to compensate Fin-

land for lost water power

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionComplex/clear

Negotiations

Additional comments

NIGER BASIN

Treaty title Act of Berlin

Basins involvedNigerMain basinNigerDate signed02/26/1885SignatoriesBilateral

Parties Great Britain, France

Principal focus Navigation
Non-water linkages None

Comments on above

MonitoringNot availableAllocationsNo allocations

Not available **Enforcement**

No **Unequal power relationship**

Information sharing Not available **Conflict resolution** Not available

Method for water division None

Negotiations Channel modifications and canals were provided

for (with no funding, apparently) and "should be considered in their quality of means of communication" as part of the river and subject to the trea-

ty's governing principles

This treaty laid the foundation for many future Additional comments

treaties, including the landmark treaty signed at

Niamey, 1963/4

Treaty title Convention of Barcelona

Basins involved Niger Main basin Niger Date signed 04/20/1921 **Signatories** Multilateral

Parties Great Britain, France, "among others" (riparians?)

Principal focus Navigation None Non-water linkages

Comments on above

Not available **Monitoring**

Allocations

Enforcement Not available **Unequal power relationship** Not available **Information sharing** Not available **Conflict resolution** Not available Method for water division None

Negotiations

Additional comments Also provided for works undertaken for irrigation

or hydropower, unless such works infringed on

"vital interests"

Treaty title Act ... states of the Niger basin

Basins involved Niger Main basin Niger Date signed 10/26/1963 **Signatories** Multilateral

Cote **Parties** Cameroon, Chad, Dahomey, Guinea,

D'Ivoire, Mali, Niger, Nigeria, Upper Volta

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

EnforcementCouncilUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

Treaty title Agreement concerning the River Niger Commis-

sion and the navigation and transport on the River

Niger

Basins involvedNigerMain basinNigerDate signed11/25/1964SignatoriesMultilateral

Parties Benin, Cameroon, Chad, Cote D'Ivoire, Guinea,

Mali, Niger, Nigeria, Upper Volta

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Council **Unequal power relationship** No

Information sharingNot availableConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

Treaty title Convention creating the Niger Basin Authority

Basins involvedNigerMain basinNigerDate signed11/21/1980SignatoriesMultilateral

Parties Benin, Cameroon, Chad, Cote D'Ivoire, Guinea,

Mali, Niger, Nigeria, Upper Volta

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments Changed the River Niger Commission to the Niger

Basin Authority. Created a Council of Ministers, Technical Committee of Experts, and the Execu-

tive Secretariat. Treaty to last for 10 years

NILE BASIN

Treaty title Protocol between Great Britain and Italy for the

demarcation of their respective spheres ...

Basins involvedNileMain basinNileDate signed04/15/1891SignatoriesBilateral

Parties Great Britain, Italy
Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Obviously, nearly all of the water goes to Britain

(Egypt) since Italy agreed to not construct any sig-

nificant diversions

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations Italy, at this point in the century, was "given" Lib-

ya and Ethiopia for colonization as some concession by the major powers. This treaty reflects the strength of Britain's position, even as downstream

riparian

Additional comments Italy agreed not to construct any works on the

Atbara that would affect its flow into the Nile

(mainly pertained to irrigation works)

Treaty title Exchange of notes between Great Britain and

Ethiopia

Basins involvedNileMain basinNileDate signed03/18/1902SignatoriesBilateral

Parties Great Britain, Ethiopia

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Great Britain receives all of the waters of the Blue

Nile, unless they agree with Ethiopia on a given

project

Enforcement Not available

Unequal power relationship Yes

Information sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations Closely resembles UK-Italy treaty of 1891

Additional comments Ethiopia agreed not to interfere with the flow of

the Blue Nile (or lake Tsana) "except in consultation with His Britannic Majesty's government and

the government of the Sudan ..."

Treaty title Agreement ... modifying the agreement signed at

Brussels, 12 May 1894

Basins involvedNileMain basinNileDate signed05/09/1906SignatoriesBilateral

Parties Great Britain, Independent Congo

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations Britain gets 100% until it says otherwise

Enforcement Not available

Unequal power relationship Yes

Information sharingNot availableConflict resolutionUN/third party

Method for water division None

Negotiations

Additional comments Congo agreed to not construct any work (or allow

any work to be constructed) which would diminish

the flow into Lake Albert

Treaty title Exchange of notes between Great Britain and Italy

Basins involvedNileMain basinNileDate signed12/20/1925SignatoriesBilateral

Parties Great Britain, Italy
Principal focus Water supply
Non-water linkages Political concessions

Comments on above Italy given economic exclusivity in Ethiopia in ex-

change for limiting river development so that Brit-

ain could build a barrage at Lake Tsana

Not available **Monitoring**

Allocations Italy relinquished all water rights except reason-

able use, extending to small hydropower projects

and reservoirs

Enforcement Not available **Unequal power relationship** Not available **Information sharing** Not available **Conflict resolution** Not available None

Method for water division

Negotiations

Additional comments Italy recognized prior hydraulic rights of Egypt and

the Sudan

Treaty title Exchange of notes ... in regard to the use of ... the

river Nile for irrigation purposes

Basins involved Nile Main basin Nile Date signed 05/07/1929 **Signatories** Bilateral

Great Britain, Egypt **Parties** Principal focus Water supply Non-water linkages Other linkages

Comments on above British agreed to lend technical support

Monitoring Yes

Allocations Egypt accepted the findings of the 1925 Nile com-

mission restricting the amount of water impounded

by Sudan except during the flood period

Not available **Enforcement**

Yes **Unequal power relationship**

Information sharing Not available Conflict resolution UN/third party Method for water division Complex but clear

Negotiations Egypt and Sudan would agree before any new

construction took place to increase local water

supply

Additional comments

Agreement ... regarding water rights on the **Treaty title**

boundary between Tanganyika and Ruanda-

Urundi

Basins involved Nile Main basin Nile Date signed 11/22/1934 **Signatories** Bilateral

Parties Great Britain, Belgium **Principal focus** Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available Unequal power relationship Not available **Information sharing** Not available **Conflict resolution** UN/third party Method for water division Equal parts

Negotiations

Additional comments

Industrial/mine pollution also addressed strongly. Inhabitants of either territory "should be permitted to navigate any river or stream forming the common boundary and take therefrom fish and aquatic plants and water ... for any purposes conforming

with their customary rights"

Treaty title Exchanges of notes ... regarding the construction

of the Owen Falls dam, Uganda

Basins involved Nile Main basin Nile **Date signed** 05/31/1949 **Signatories** Bilateral

Parties Great Britain, Egypt

Principal focus Hydropower None

Non-water linkages

Comments on above

Not available **Monitoring**

Allocations

Not available **Enforcement**

Unequal power relationship Yes

Information sharing Not available **Conflict resolution** UN/third party

Method for water division None

Negotiations

Additional comments Provided that Uganda (although not a signatory)

> could build (or contract to build) a hydroelectric dam so long as the dam "did not adversely affect the discharges of water to be passed through the

dam ..."

Exchange of notes constituting an agreement be-Treaty title

tween [Great Britain] ... and [Egypt] regarding the

construction of the Owen Falls dam, Uganda

Basins involved Nile Main basin Nile

Date signed12/05/1949SignatoriesBilateral

Parties Egypt, Great Britain (Uganda)

Principal focus Hydropower
Non-water linkages Money

Comments on above Contract for building the dam amounted to

£3,639,540 5s. Sluices contract is £124,866

Monitoring Yes

Allocations See 1929 Nile Waters Agreement

EnforcementNoneUnequal power relationshipYesInformation sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

tween [Great Britain] (on behalf of ... Uganda) and [Egypt] regarding cooperation in meteorologi-

cal ...

Basins involvedNileMain basinNileDate signed01/19/1950SignatoriesBilateral

Parties Egypt, Great Britain (Uganda)

Principal focusHydropowerNon-water linkagesMoney

Comments on above £E4,200 to pay for meteorological and hydrologic

data, maximum of £E4,500

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Not available

Method for water division None

Negotiations

Additional comments

Treaty title Exchange of notes constituting an agreement be-

tween the [UK/Uganda] and [Egypt] regarding the

construction of the Owen Falls dam in Uganda

Basins involved Nile **Main basin** Nile

Date signed 07/16/1952 **Signatories** Bilateral

Parties Egypt, Great Britain (Uganda)

Principal focus Hydropower
Non-water linkages Money

Comments on above Egypt pays Uganda £980,000 (loss of hydroelectric

power) and also flood compensation (later)

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship Ye

Information sharing Not available

Conflict resolution None

Method for water division Not available

Negotiations

Additional comments Lake Victoria was to be used for the storage of

additional water but would reduce flow to the

Owen Falls dam

Treaty title Agreement between the government of the United

Arab Republic and the government of Sudan

Basins involvedNileMain basinNileDate signed11/08/1959SignatoriesBilateralPartiesSudan, EgyptPrincipal focusWater supply

Non-water linkages Money

Comments on above £E15 million would be paid by Egypt for inundated

lands; the Aswan, Roseires dams to be built

Monitoring Yes

Allocations Egypt: 48 BCM. Sudan: 4 BCM. Agreement on the

evaporative losses in Sudanese swamps would be reflected in equal shared costs. Net benefit of Sudd

el Aali reservoir shared at a 14.5/7.5 ratio

Enforcement Not available **Unequal power relationship** Not available

Information sharing
Conflict resolution
Wethod for water division
Yes
Council
Complex/clear

Negotiations

Additional comments Technical committees set up. An agreed-upon view

would be shown to other riparian states. Flow reductions to other riparians would be shared equally. Projects to reduce evaporative losses in

the swamps will be begun

ODER BASIN

Treaty title Agreement between [Czechoslovakia] and [Poland]

concerning the use of water resources in frontier

waters

Basins involvedOderMain basinOderDate signed03/21/1958SignatoriesBilateral

Parties Czechoslovakia and Poland

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

EnforcementCouncilUnequal power relationshipNoInformation sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations "The Contracting parties shall come to an agree-

ment on the amount of water to be taken from frontier waters for domestic, industrial, power generation, and agricultural requirements and on

the discharge of waste water"

Additional comments

PAATSJOKI BASIN

Treaty title Convention between [Norway] and [Finland] con-

cerning the international legal regime of the waters

of the Pasvik (Paatsjoki) and the Jakobselv ...

Basins involved Paatsjoki, Vuoremajoki

Main basinPaatsjokiDate signed02/14/1925SignatoriesBilateralPartiesFinland, Norway

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring No

Allocations Each party received half of the flows of the river,

and all of the river flows where the party owned

both banks of the river

Enforcement None

Unequal power relationship Not available

Information sharing Yes

Conflict resolution UN/third party **Method for water division** Equal parts

Negotiations

Additional comments

Treaty title Treaty between the [USSR] and [Finland] on the

transfer to the territory of the Soviet Union of part

of the state territory of Finland in the region of ...

Basins involvedPaatsjokiMain basinPaatsjokiDate signed02/03/1947SignatoriesBilateralPartiesUSSR, FinlandPrincipal focusHydropower

Non-water linkages Land

Comments on above Finland cedes 176 km² near the Jäniskoski hydro-

power station and the Niskakoski control dam

Monitoring Not available

Allocations

Enforcement Not available

Unequal power relationship Yes

Information sharingNot availableConflict resolutionNot availableMethod for water divisionNot available

Negotiations

Additional comments

Treaty title Convention between [Finland] and the [USSR]

concerning the maintenance of river channels and

the regulation of fishing on water courses ...

Basins involved Multiple rivers

Main basinNoneDate signed10/28/1922SignatoriesBilateralPartiesUSSR, Finland

Principal focus Fishing **Non-water linkages** None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharing Yes

Conflict resolution Not available

Method for water division

Negotiations

Additional comments

Treaty title Agreement between the [USSR], [Norway], and

None

[Finland] concerning the regulation of Lake Inari

by means of the Kaiakoski ... dam

Basins involved Paatsjoki Main basin Paatsjoki **Date signed** 04/29/1959 **Signatories** Multilateral

Parties USSR, Finland, Norway

Principal focus Hydropower Non-water linkages Money

USSR paid Finland 75,000,000 Finnish markaa for **Comments on above**

damages associated with Lake Inari

Yes **Monitoring**

Allocations Daily discharge of the reservoir can range from 80

to 240 cm. If floods threaten to overtop the dam, discharge may rise to 500 cm. If the reservoir falls below 115.83 msl, discharge may fall to 45 cm

Enforcement None Unequal power relationship Yes **Information sharing** Yes Council **Conflict resolution** Method for water division None

Negotiations Finland agreed not to undertake (or authorize an-

> other to undertake) "any measures likely to affect the regime of Lake Inari or the river Paatsjoki"

Additional comments

PARANA BASIN

Treaty title Agreement concerning cooperation between [Bra-

> zil] and [Paraguay] in a study on the utilization of the water power of the Acaray and Monday ...

Basins involved Acaray, Monday

Main basin Paraná Date signed 01/20/1956 **Signatories** Bilateral

Parties Brazil, Paraguay Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations Brazil will have the right to purchase 20% of the

power from the generating stations

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available **Method for water division** Not available

Negotiations

Additional comments

Treaty title Agreement between [Argentina] and [Paraguay]

concerning a study of the utilization of the water

power of the Apipe Falls

Basins involvedParanáMain basinParanáDate signed01/23/1958SignatoriesBilateral

Parties Argentina, Paraguay

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionNone

Method for water division

Negotiations

Additional comments Established a Joint Argentine-Paraguayan Techni-

Not available

cal Commission to make a survey of hydroelectric potential. Later the two parties were to pay equal

shares of the cost of construction

Treaty title Treaty between [Brazil] and [Paraguay] concerning

the hydroelectric utilization of the water resources

of the Paraná river ...

Basins involved Paraná, Iguassu

Main basinParanáDate signed04/26/1973SignatoriesBilateralPartiesBrazil, ParaguayPrincipal focusHydropower

Non-water linkages Money

Comments on above Payments for use of hydroelectric potential; also

infrastructure-building

Monitoring Not available

Allocations

Enforcement Council **Unequal power relationship** Not available

Information sharingYesConflict resolutionNoneMethod for water divisionUnclear

Negotiations

Additional comments

Treaty title Agreement on Paraná river projects

Basins involvedParanáMain basinParanáDate signed10/19/1979SignatoriesMultilateral

Parties Argentina, Brazil, Paraguay

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

EnforcementNoneUnequal power relationshipYesInformation sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations

Additional comments Itaipu dam project agreed to and technical cooper-

ation established

PASVIK BASIN

Treaty title Agreement between Norway and the Union of So-

viet Socialist Republics on the utilization of water

power on the Pasvik (Paatso) river

Basins involvedPasvikMain basinPasvikDate signed12/18/1957SignatoriesBilateralPartiesUSSR, NorwayPrincipal focusHydropower

Non-water linkages Money

Comments on above USSR pays Norway NKr1 million for "unavoidable

damage caused ... in connexion with construction

. . .

Monitoring Yes

Allocations Apportions water between the river mouth to the

70.32 m contour for use in hydropower. The USSR may use waters from 0 to 21 m and from 51.87 m (Fjaer lake) to 70.32 m (where the river intersects

the Soviet-Norwegian border).

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionNone

Method for water division

Additional comments

Negotiations

Russia also made available (but did not cede) ter-

ritory for operation of the hydropower plant, to-

talling 6.7 ha

Complex but clear

PILCOMAYO BASIN

Treaty title Supplementary boundary treaty between [Argen-

tina] and [Paraguay] on the river Pilcomayo

Basins involvedPilcomayoMain basinPilcomayoDate signed06/01/1945SignatoriesBilateral

Parties Argentina, Paraguay

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available **Method for water division** Not available

Negotiations

Additional comments Created a joint technical commission that proposed

entrainment and storage works for the Pilcomayo river. Also, reservoirs and canals could firmly establish the border between the two countries

RHINE BASIN

Treaty title State Treaty concerning the construction of a hy-

droelectric power-plant on the Sauer at Rosport/

Ralingen

Rhine **Basins** involved Main basin Rhine Date signed 04/25/1950 **Signatories** Bilateral

Luxembourg, Germany (FRG) **Parties**

Principal focus Hydropower None

Non-water linkages

Comments on above

Monitoring Not available

Allocations Luxembourg owns 100% of power produced at the

dam, and "the removal of water on the German side of the river above the dam shall be permitted only if an equivalent quantity of water is in-

troduced above the said dam"

Not available **Enforcement**

Unequal power relationship Yes **Information sharing** Yes **Conflict resolution** Council

Method for water division Complex but clear

Negotiations

Additional comments

Treaty title State treaty between [Luxembourg] and [West

Germany] concerning the construction of hydro-

electric power-installations on the Our

Basins involved Our Main basin Rhine Date signed 07/10/1958 **Signatories** Bilateral

Parties Luxembourg, Germany (FRG)

Principal focus Hydropower

Non-water linkages None

Comments on above

Yes **Monitoring**

Allocations

Not available Enforcement

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Not available Method for water division Not available

Negotiations

Additional comments The power plant was to generate (net) 960,000 kW

when complete

Treaty title Agreement between [West Germany], [Austria],

and [Switzerland] relating to the withdrawal of

water from Lake Constance

Basins involvedRhineMain basinRhineDate signed04/30/1966SignatoriesMultilateral

Parties Federal Republic of Germany, Austria, Switzer-

land

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Yes

Allocations Up to 750 l/sec used by any party outside the

catchment area without notification. Up to 1500 l/sec used by any party inside the catchment area

without notification

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionUnclear

Negotiations

Additional comments Withdrawals of water over 750 l/sec for use outside

the catchment must be reported and authorized. Withdrawals of water over 1,500 l/sec for use inside the catchment must be reported and authorized. Withdrawals of water do not justify any claim to a

specific quantity in the future

Treaty title Convention concerning development of the Rhine

between Strasbourg and Lauterbourg

Basins involvedRhineMain basinRhineDate signed07/04/1969SignatoriesBilateral

Parties Germany (FRG) and France

Principal focus Hydropower Non-water linkages Money

Comments on above Each party agreed to pay half the costs of con-

struction, amounting to DM90 million up to

DM100 million

Monitoring Yes

Allocations Each party receives half of the estimated 1,280

GWh annually from the two hydropower stations

EnforcementNoneUnequal power relationshipNoInformation sharingYesConflict resolutionCouncilMethod for water divisionEqual parts

Negotiations

Additional comments

RIO GRANDE BASIN

Treaty title Agreement relating to the construction of Amistad

Dam on the Rio Grande to form part of the system of international storage dams provided for by the

. .

Basins involvedRio GrandeMain basinRio GrandeDate signed10/24/1960SignatoriesBilateralPartiesUSA, MexicoPrincipal focusHydropowerNon-water linkagesNone

Comments on above

Monitoring Not available

Allocations Enforcement

Not available

Unequal power relationshipYesInformation sharingNoneConflict resolutionNoneMethod for water divisionNone

Negotiations

Additional comments

ROYA BASIN

Treaty title Franco-Italian convention concerning the supply of

water to the Commune of Menton

Basins involvedRoyaMain basinRoyaDate signed09/28/1967SignatoriesBilateralPartiesFrance, Italy

Principal focus Water supply Non-water linkages Money

Comments on above A deposit of 10 million lire for obligations deriving

from the use of the water

Monitoring Yes

Allocations France gets 400 l/sec from the Roya, of which 100

l/sec continues on to Ventimiglia (back to Italy). When the Roya's flow falls below 5,600 l/sec, flows

are reduced proportionally

Enforcement Council **Unequal power relationship** No **Information sharing** Yes

Conflict resolution UN/third party
Method for water division Complex but clear

Negotiations Materials for construction of the water diversion

and pumping are not subject to tariffs

Additional comments The treaty signed for a 70 year-duration. Pumping

stations also included in the treaty, to be built at communal expense for both towns receiving water,

one on each side of the border

RUYUMA BASIN

Treaty title Exchange of notes ... regarding the boundary be-

tween Tanganyika territory and Mozambique

Basins involvedRuvumaMain basinRuvumaDate signed05/11/1936SignatoriesBilateral

Parties Great Britain, Portugal

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot available

Method for water division None

Negotiations

Additional comments River bank inhabitants were given unrestricted

rights to draw water, fish, and remove saliferous

sand for salt extraction

SENEGAL BASIN

Treaty title Convention of Bamako

Basins involvedSenegalMain basinSenegalDate signed07/26/1963SignatoriesMultilateral

Parties Senegal, Mali, Mauritania, Guinea

Principal focus Industrial uses

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncilMethod for water divisionNone

Negotiations

Additional comments

Treaty title Convention of Dakar

Basins involvedSenegalMain basinSenegalDate signed01/30/1970SignatoriesMultilateral

Parties Senegal, Mali, Mauritania, Guinea

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

EnforcementCouncilUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot available

Method for water division

Negotiations

Additional comments Dam agreed to be built. Also, ports and channels

improved and the channel discharge established at

300 cm/sec

None

SENOU BASIN

Treaty title Treaty on the Lesotho Highlands water project

between [Lesotho] and [South Africa]

214 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

Basins involvedSenqu/OrangeMain basinSenqu/OrangeDate signed10/01/1986SignatoriesBilateral

Parties South Africa, Lesotho

Principal focus Hydropower Non-water linkages Money

Comments on above Loans for construction. Payment by each party re-

flects their percent of the benefits, although RSA's

benefit is water supply; Lesotho's is electricity

Monitoring Yes

Allocations RSA receives an increasing amount of water as the

project moves forward: from 57 MCM in 1995 to

2208 MCM after 2020

EnforcementCouncilUnequal power relationshipYesInformation sharingYesConflict resolutionCouncilMethod for water divisionComplex/clear

Negotiations

Additional comments South Africa wants this treaty for the water, and

Lesotho will get the hydropower from the reservoir

- almost as an afterthought

SEPIK BASIN

Treaty title Agreement between [Australia/Papua New

Guinea] and [Indonesia] concerning administrative

border arrangements

Basins involvedSepik, FlyMain basinSepik, FlyDate signed11/13/1973SignatoriesBilateral

Parties Papua New Guinea, Indonesia

Principal focus Pollution
Non-water linkages None

Comments on above Mostly cross-border rights, not water supply

Monitoring No

Allocations Natives given traditional rights for withdrawals,

fishing, and social customs/ceremonies

Enforcement None

Unequal power relationship Not available

Information sharingNoneConflict resolutionNoneMethod for water divisionUnclear

Negotiations

Additional comments Agreement not to pollute waters that will flow into

the other country, among other agreements; mostly concerning native peoples and traditional rights,

especially social and fishing

SYR DARYA

Treaty title Agreement on joint activities in addressing the

Aral sea ...

Basins involved Aral sea, Syr Darya, Amu Darya

Main basinSyr DaryaDate signed03/26/1993SignatoriesMultilateral

Parties Kazakhstan, Kyrgyzstan, Tajikstan, Turkmenistan,

Uzbekistan

Principal focus Pollution
Non-water linkages Other linkages

Comments on above The Russians promised financial support and tech-

nical support, although they are not signatories

Monitoring Yes

Allocations No allocative amounts are available. In fact, this

treaty seems to have non-allocation or non-natural

increases of water supply in mind

Enforcement None

Unequal power relationship Not available

Information sharingYesConflict resolutionNoneMethod for water divisionNone

Negotiations Treaty lasts for 10 years with optional 10-year ex-

tension. It creates the Interstate Council for the Aral Sea Basin Crisis with three committees under it: Executive Committee, Coordinating Commission on Water Resources, and the Commission of

[Development and Cooperation]

Additional comments There is an earlier agreement (18 February 1992,

signed in Almaty) referred to in this document. The "Russian Federation" agrees to lend technical and financial support (no figures given) for water treatment/supply, measures to fight desertification, "environment monitoring system," and training

Treaty title Resolution of the Heads of States of the Central

Asia [sic] on work of the EC of ICAS on imple-

mentation ...

216 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

Basins involved Aral sea, Syr Darya, Amu Darya

Main basinSyr DaryaDate signed03/03/1995SignatoriesMultilateral

Parties Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan,

Uzbekistan

Principal focusPollutionNon-water linkagesMoney

Comments on above Agreed to deposit funds for the IFAS

Monitoring Not available

Allocations None Enforcement None

Unequal power relationship Not available

Information sharingYesConflict resolutionNoneMethod for water divisionNone

Additional comments This treaty exists to set up the members of the

ICAS [International Council on the Aral Sea]

more than anything else

URUGUAY BASIN

Treaty title Agreement concerning the utilization of the

rapids of the Uruguay river in the Salto Grande

area

Basins involvedUruguayMain basinUruguayDate signed12/30/1946SignatoriesBilateral

Parties Argentina, Uruguay

Principal focusHydropowerNon-water linkagesMoney

Comments on above Costs of hydropower systems will be equally

shared

Monitoring Yes

Allocations

Enforcement Council
Unequal power relationship
Information sharing Yes
Conflict resolution Council
Method for water division None

Negotiations

Additional comments

VISTULA BASIN

Treaty title Agreement between [Poland] and the [USSR]

concerning the use of water resources in frontier

waters

Basins involvedVistulaMain basinVistulaDate signed07/17/1964SignatoriesBilateralPartiesUSSR, PolandPrincipal focusFlood control

Non-water linkages None

Comments on above

Monitoring Yes

Allocations

Enforcement Not available

Unequal power relationshipYesInformation sharingYesConflict resolutionNone

Method for water division Not available

Negotiations Each party agrees to not undertake works which

may affect the use of resources by the other

Additional comments The treaty discusses cooperation on many subjects,

not just flood control. They will work out standards relating to water purity and establish procedures

for controlling pollution

VUOKSA BASIN

Treaty title Agreement between [Finland] and the [USSR]

concerning the production of electric power in the part of the Vuoksi river bounded by the Imatra ...

Basins involvedVuoksaMain basinVuoksaDate signed07/12/1972SignatoriesBilateralPartiesRussia, FinlandPrincipal focusHydropowerNon-water linkagesOther linkages

Comments on above The loss of 19,900 MWH will be compensated to

Finland in perpetuity

Monitoring Yes

Allocations

Enforcement Council

Unequal power relationship Yes **Information sharing** Yes

Conflict resolution Other government agency
Method for water division Complex but clear

Negotiations

Additional comments A five-year treaty, considered to be extended in

five-year increments unless otherwise dissolved by

one or the other party

ZAMBESI BASIN

Treaty title Exchange of notes constituting an agreement be-

tween [Great Britain] and [Portugal] providing for

the Portuguese participation in the Shir valley ...

Basins involvedZambesiMain basinZambesiDate signed01/21/1953SignatoriesBilateral

Parties Portugal, Great Britain

Principal focus Hydropower Non-water linkages Money

Comments on above One-third costs of dam construction borne by Por-

ugal

Monitoring Not available

Allocations

EnforcementNot availableUnequal power relationshipNot availableInformation sharingNot availableConflict resolutionNot availableMethod for water divisionNone

Negotiations

Additional comments Irrigation also considered, as well as land reclama-

tion

Treaty title Agreement between [Great Britain/Rhodesia-

Nyasaland] with regard to certain ... natives living

on the Kwando river

Basins involvedKwandoMain basinZambesiDate signed11/18/1954SignatoriesBilateral

Parties Great Britain (Rhodesia, Nyasaland), Portugal

Principal focus Water supply

Non-water linkages None

Comments on above

Monitoring Not available

Allocations

Enforcement Not available
Unequal power relationship
Information sharing
Conflict resolution
Not available
Not available
Not available

Method for water division None

Negotiations

Additional comments Natives were allowed use of the Kwando for water

supply, irrigation, and fishing during the dry season

Treaty title Agreement ... Relating to the Central African

Power Corporation

Basins involvedZambesiMain basinZambesiDate signed11/25/1963SignatoriesBilateral

Parties Southern Rhodesia, Northern Rhodesia

Principal focus Hydropower

Non-water linkages None

Comments on above

Monitoring Not available

Allocations A cooperative corporation of the two nations reg-

ulates the water level in the reservoir "in the interests of the operation of the installations and of

the safety of the dam ..."

Enforcement Not available **Unequal power relationship** Not available

Information sharingYesConflict resolutionCouncil

Method for water division Complex but clear

Negotiations Unknown

Additional comments 25-year duration of the treaty. It is one of only

three dams in Africa, the totality of which uses 5%

of estimated hydroelectric power

Treaty title Untitled: Agreement between South Africa and

Portugal

Basins involvedZambesiMain basinZambesiDate signed04/01/1967SignatoriesBilateral

Parties South Africa, Portugal

Principal focusHydropowerNon-water linkagesMoney

Comments on above Malawi agreed to purchase electricity from the

dam

220 TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION

Monitoring Not available

Allocations

Enforcement Not available Unequal power relationship Not available **Information sharing** Not available **Conflict resolution** Not available None

Method for water division

Negotiations

Additional comments