

Case Study Transboundary Dispute Resolution: the Lesotho Highlands Water Project

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1. Case summary

<i>River basin:</i>	Senqu River (Figure 1, table 1)
<i>Dates of negotiation:</i>	1978 to 1986, Ongoing negotiation provided for in treaty
<i>Relevant parties:</i>	Lesotho, South Africa
<i>Flashpoint:</i>	Water deficit in South African industrial hub
<i>Issues:</i>	Stated objectives: negotiate technical and financial details of water transfer from Lesotho to South Africa
<i>Additional issues:</i>	Water-related: hydropower for Lesotho internal consumption; Non-water: general development
<i>Excluded issues:</i>	None
<i>Criteria for water allocations:</i>	Amount for sale negotiated for treaty
<i>Incentives/linkage:</i>	South Africa buys water from Lesotho and finances diversion; Lesotho uses payments and development aid for hydropower generation and general development
<i>Breakthroughs:</i>	Financing arrangement negotiated which allowed for international funding
<i>Status:</i>	Phase I of project completed in 2004, feasibility of Phase II currently being studied

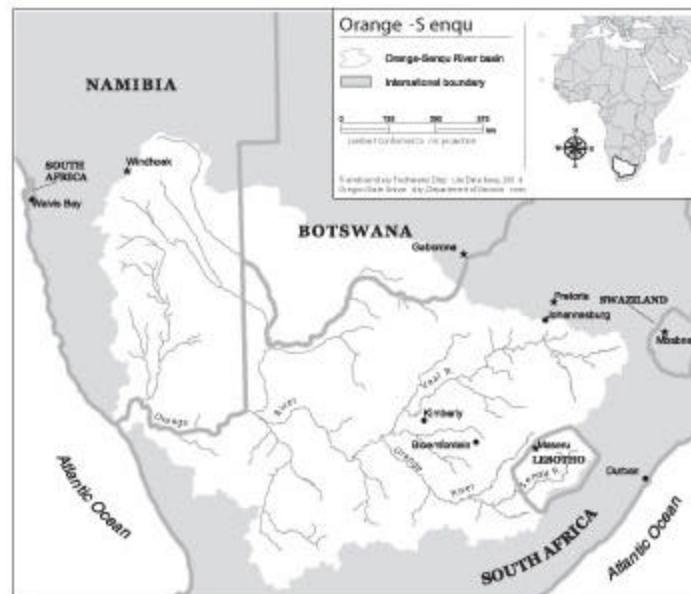


Figure 1: Map of the Senqu River (Lesotho Highlands Project, TFDD, 2007)..

2. Background

Development in Lesotho has been limited by its lack of natural resources and investment capital. Water is its only abundant resource, which is precisely what regions of neighboring South Africa have been lacking. A project to transfer water from the Senqu River to South Africa had been investigated in the 1950s, and again in the 1960s. The project was never implemented due to disagreement over appropriate payment for the water.

Table 1: Features of the Lesotho Highlands.

Name	Riparian states (With % of national available water being utilized) b ^a	Riparian relations (with dates of most recent agreements)	Watershed features ^a			
			Average annual flow (km ³ /yr.) ^c	Size (km ²)	Climate	Special features
Lesotho Highlands	Lesotho (1.5), South Africa (28.4)	Warm	n/a	n/a	Humid marine	Interesting institutional arrangement exchanging water, financial considerations, and energy resources

a Values for lakes under "Annual Flow" are for storage volumes.

b Source: Kulshreshtha (1993)

c Sources: Gleick ed. (1993); UN Register of International Rivers (1978)

Remaining data from TFDD, 2007..

3. The problem

Lesotho, completely surrounded by South Africa, is a state poor in most natural resources, water being the exception. The industrial hub of South Africa, from Pretoria to Witwatersrand, has been exploiting most of the local water resources for years and the South African government has been in search of alternate sources. The elaborate technical and financial arrangements that led to construction of the Lesotho Highlands Water Project (LHWP) provide a good example of the possible gains of an integrative arrangement including a diverse "basket" of benefits.

4. Attempts at conflict management

In 1978, the governments of Lesotho and South Africa appointed a joint technical team to investigate the possibility of a water transfer project. The first feasibility study suggested a project to transfer 35 m³/sec, four dams, 100 km of transfer tunnel, and a hydropower component. Agreement was reached to study the project in more detail, the cost of the study to be borne by both governments.

The second feasibility study, completed in 1986, concluded that the project was feasible, and recommended that the amount of water to be transferred be doubled to 70 m³/sec. A treaty between the two states was necessary to negotiate for this international project. Negotiations proceeded through 1986 and the "Treaty on the Lesotho Highlands Water Project between the Government of the Kingdom of Lesotho and the Government of the Republic of South Africa" was signed into law on October 24, 1986.

It is testimony to the resilience of these arrangements that no significant changes were made despite the dramatic political shifts in South Africa at the end of the 1980s until 1990.

5. Outcome

The Treaty spells out an elaborate arrangement of technical, economic, and political intricacy. A boycott of international aid for apartheid South Africa required that the project be financed, and managed, in sections. The water transfer component was entirely financed by South Africa, which would also make payments for the water that would be delivered. The hydropower and development components were undertaken by Lesotho, which received international aid from a variety of donor agencies, particularly the World Bank. Phase IA of the Lesotho Highlands Water Project was completed in 1998, at a cost of \$2.4 billion. Phase IB of the project was completed in early 2004, at a cost of approximately \$1.5 billion.

The 1986 treaty provided for the construction of additional Phases: II-IV. However, changes in the projection of water demand in South Africa, along with concerns over negative social and environmental impacts of the project, have led to negotiations on the future phases. In 2004 a feasibility study of Phase 2 began between the nations of South Africa and Lesotho.

Although Environmental Action Plans (EAPs) were carried out for both Phases IA and IB, EAPs for Phase IA were carried out while construction for the phase was already underway. It was in the course of Phase IB EAPs in 1994 that the need for an instream flow requirement became apparent (see <http://www.metsi.com/LHWP/ifr.htm#motivating>). After studies of the biophysical, social and economic effects of the project were carried out, an Instream Flow Requirement (IFR) policy was implemented in 2002. In particular, river reaches and communities downstream of the project sites were considered in the assessment, whereas EAPs of Phase I considered only those areas only upstream of the project sites.

6. Lessons learned

- *Even with power disparity, there is possibility for agreement over water resources through economic benefits.*

South Africa is a much more powerful nation than Lesotho, but Lesotho has abundant water resources, which, through the Highlands Project, will benefit both nations economically and through the provision

of water to South Africa. It is possible even when there is such a wide gap between nations in terms of power, to collaborate for the mutual gain of both countries.

- *It is more economically sound to begin impact studies before nations start to construct projects.*
It was shown through the Lesotho Highlands Water Project that if impact studies are started after the initiation of a major hydro-project, the costs for the project go up as necessary components for the project may not have been considered pre-study. For the Phase II of the LHWP, studies are being conducted to judge the feasibility of a project that was designed more than 15 years ago to investigate in a more comprehensive manner the possible impacts of the project.
- *Renegotiation clauses in an agreement can prevent issues from arising for the nations involved.*
The LHWP treaty also exemplifies the importance of providing for renegotiation of project terms. In the absence of such a provision, the additional phases of the project might have been implemented without adequate consideration of their feasibility

7. Creative outcomes resulting from resolution process

The Lesotho Highlands Water Project provides lessons in the importance of an integrated approach to negotiating the allocation of a "basket" of resources. South Africa receives cost-effective water for its continued growth, while Lesotho receives revenue and hydropower for its own development.

8. Timeline

- 1930–1977 Feasibility Studies and Surveying of Water Potential in Lesotho
- 1978 Joint Preliminary Feasibility Study Carried out by Consultants from South Africa and Lesotho
- 1983-1985 Joint Detailed Feasibility Study
- 1986 Lesotho Highlands Water Project Treaty signed by the Government of Lesotho and of the Republic of South Africa
- Establishment of Joint Permanent Technical Commission to represent two governments
- 1990 End of Apartheid Era, South Africa
- Construction Begins on Phase 1
- 1996 Workers protest at the LHWP Site in Butha Buthe, several workers killed, many wounded
- 1998 Phase IA completed
- First water supply from Lesotho to South Africa
- 2004 Phase IB completed
- Present Phase II feasibility study being conducted bi-nationally with 50/50 input and cost sharing between Lesotho and South Africa

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