



Friends of the Earth Middle East
جمعية أصدقاء الأرض الشرق الأوسط
ידידי כדור הארץ המזרח התיכון



Comments of EcoPeace/Friends of the Earth Middle East to World Bank Public Hearings concerning Red Dead Conduit Project February, 2013, Amman, Jerusalem and Ramallah

Introduction:

The governments of our region (Israeli, Jordanian and Palestinian) have been discussing the possibility of linking the Red Sea with the Dead Sea since 2002. In the more than 10 years that have passed, the World Bank, at the request of our governments, and at a cost of US\$16.5 million, has undertaken studies to answer 3 declared objectives of the project.

- **Save the Dead Sea from environmental degradation**
- **Desalinate water and/or generate hydro-electricity at affordable prices in Jordan, Israel and the PA**
- **Build a symbol of peace and cooperation in the Middle East**

The key studies undertaken are summarized in two main reports; a Draft Feasibility Study (FS) dated July 2012 and a Study of Alternatives (SA) (preliminary draft report) dated September 2012. The feasibility study was the key document requested by our governments encompassing several sub studies (Dead Sea, Red Sea) and an Environmental and Social Assessment (ESA). In addition the World Bank, initially contrary to the wishes of our own governments, but under civil society pressure, commissioned a Study of Alternatives that compare the Red Dead options with other alternatives that either fully, partially, or in combination might advance the declared objectives.

These comments are prepared by EcoPeace / Friends of the Earth Middle East, a regional organization that brings together Israeli, Jordanian and Palestinian environmentalists for the purpose of providing independent civil society input to the World Bank hearings scheduled for February 2013. They build on the 14 earlier reports and comments published and submitted by FoEME that can all be found on our website at

http://foeme.org/www/?module=publications&project_id=51

On a more positive note, over the last decade FoEME has utilized the time to commission its own reports to advance knowledge and understanding as to alternatives to the Red Dead, and in particular, those that seek to reverse the root causes for the demise of the Dead Sea, including rehabilitation of the Lower Jordan River, region wide water conservation and demand management studies, and reform of the practices of the Dead Sea mineral extraction industry. These reports can be found at: http://foeme.org/www/?module=publications&project_id=23

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FoEME believes that the two main World Bank commissioned studies when considered together reveal that the Red Dead Conveyance option is the least affordable and least desirable from an environmental and economic perspective in reaching the three stated objectives of the project.

Below are either direct quotes or paraphrases from the Feasibility Report and associated studies.

Declared Objective: **Save the Dead Sea from environmental degradation**

From Feasibility Study - paragraph 5.7, page 11:

- Chemical composition of Dead Sea will progressively take on the characteristics of ocean water
- Potential increase in the frequency and duration of red algae blooms
- Potential increase in the frequency and duration of whitening events. “It is inevitable that when Red Sea water is mixed with Dead Sea water **gypsum** will be precipitated.”

From ESA:

- “...changes in water color, turbidity and possibly floating slimy deposits in the waters.” (ESA page 25)
- The Scheme is supposed to ‘save the Dead Sea’ but in the process of restoration there is a risk...Because of the uncertainties regarding these effects their potential impact on cultural and natural heritage is considered to be of major significance. (ESA page 16) In effect preventing possible listing of Dead Sea as a World Heritage site.
- It is therefore essential that further detailed studies are undertaken (Table ES 18 page 50 ESA) at an additional cost of US\$12 million.
- Economics of phasing or pilot option do not work (loss of US\$3 to \$4 billion) FS para 27.4.2. page 66. Project design requires 75% of full scale of project to be built as a first phase to meet minimum objectives of project. FS 27.4.4 page 67 contrary to recommendations of ESA that recommend further study.

Not only does the project NOT ‘save the Dead Sea from environmental degradation’ but it threatens other critical natural and heritage resources in its path:

- Arava / Araba Valley – threat of groundwater pollution by seawater - insidious leakage or catastrophic failure due to act of terrorism, earthquakes or human error. (ESA Table ES.11 page 37.)
- Impacts on sensitive and unique terrestrial habitats – migratory birds, endangered and threaten species, ecological connectivity and protected areas. (ESA Table ES.10 page 36.)
- Potential impacts on the Gulf of Aqaba/Eilat on Red Sea corals. (ESA Table ES.6 page 26.)
- An 880 MW deficit of power generation needed for all the pumping of seawater requiring the building of new power stations, associated air pollution and Green House Gas emissions that could double Jordan’s current GHG output. (Feasibility Report table 22.1 page 50 / ESA page 18)
- Induced impacts of major Disneyland style development if open canals were to be built along the Araba Valley path.

In the opinion of FoEME, the World Bank Feasibility Study has failed to adequately consider the precautionary principles when evaluating this project – contrary to World Bank operational guidelines. The recent damage to Japan’s environment and economy due to the earthquake and tsunami hitting its fortress nuclear power facilities is an example of the under estimation of the power of nature in an earthquake zone not dissimilar to that of the Dead Sea area.

Declared Objective: Desalinate water and/or generate hydro-electricity at affordable prices in Jordan, Israel and the PA

- Project not affordable to the average person in the region at several levels. (FS para 30.5, pages 78 and 79.
 - Region wide dependent on half the capital costs - US\$4.5 billion given as a gift from the international community - with opportunity costs that such sum would be lost to solve more critical aspects of the peace process – refugee issues etc.
 - Mostly Jordan would need to raise a loan of US\$2.6 billion to pump water up to Amman when Jordan is already overburdened by heavy debt.
 - Unaffordable cost of project water in Amman to average Jordanian – up to US\$ 2.7 a cm – nearly triple current cost
 - Unaffordable cost of project water in Israel and Palestine – up to US\$ 1.85 a cm – triple current cost. Israel asked consultants not to even study delivery of water to Israel. (FS para 20.1 page 49.)
 - Net benefit analysis based on shaky assumptions – FS para 28 pages 69 - 71
- A) US\$3.5 billion benefit to Dead Sea tourism when at the same time project risks to destroy tourism attraction at the Dead Sea. An unaffordable risk to the tourism industry.
- B) US\$10 billion benefit from increased water supply calculated on the cost of tankered water. An unreasonable assumption.
- C) US\$41.7 billion on so called ‘Peace Dividend’ though project promotes very little cooperation, employs very few people and is to be built only in one of the three countries concerned.
- D) US\$1.4 billion from hydropower when project overall is net power drain.

Declared Objective: Build a symbol of peace and cooperation in the Middle East

- Governance structure dependent on recognition of all parties being riparian’s to the Dead Sea. Beneficiary language currently in use during the study stage is no longer acceptable to the Palestinian side. Project financing is dependent on Israeli leadership recognizing Palestinian sovereignty to areas of the Dead Sea in the West Bank. Presently highly unlikely, and therefore, the whole project cannot advance as agreement to governance structure based on international law is a prerequisite to any international support. FS para 29.1 page 72
- As we have seen in Egypt with the repeated bombing of a gas pipeline in Sinai that provided natural gas to Israel, the nature of this infrastructure project makes it very vulnerable to acts of terrorism.

World Bank Study of Alternatives

The World Bank Study of Alternatives, commissioned initially contrary to the wishes of our respective governments, compares the Red Dead Conduit proposal with some 20 alternatives or combination of alternatives as regards their meeting the stated objectives of the project. It compares the RDC with the possibility to rehabilitate the Lower Jordan River, other conduits proposed from the Mediterranean Sea to the Dead Sea, import of water from Turkey and elsewhere, Mediterranean and Aqaba coast desalination options, water conservation options and technical changes to mineral extraction. See:

http://siteresources.worldbank.org/INTREDSEADEADSEA/Resources/Study_of_Alternatives_Report_EN.pdf

On page xxxii of the Study of Alternatives the authors speak to the **advantages of an incremental approach that combines several alternatives**; Combined Aqaba and Mediterranean coast desalination, water importation and water recycling and conservation that could fully restore the lower Jordan River, stabilize the level of the Dead Sea above its current level and supply the additional water needs of Jordan, Palestine and Israel. Other combinations include changes in crop patterns and technical changes to the mineral extraction industry.

In describing the advantages of the incremental approach the authors' state:

- **It can be flexible and responsive especially to technological advances**
- **More fundable than a big upfront investment**
- **Fully advances the three objectives set yet without the risks associated with the sea to sea conveyance and the effect of mixing sea water in the Dead Sea.**
- **No need for a 'pilot' – benefits from a combination of proven technologies**

Unlike the Feasibility Study that seems to have ignored the dramatic changes in water management practices and technological advance in particular coastal desalination, wide spread treatment of wastewater and reduced water subsidies, the Study of Alternatives speaks to the experience developed over the last decade in the region that could be further deployed and expanded to meet the needs of our three peoples at far lower risk and cost to people and nature. **The Study of Alternatives in Table ES.3 page xlix (CA1) identifies the combination of alternatives as the only option where all objectives are realized combined with both positive environmental and social benefits.**

Of great importance to note is that even the Feasibility Study authors recognize that many of the reforms needed as part of water conservation - wastewater reuse, water pricing and the partial rehabilitation of the Lower Jordan River would be **conditions precedent** made by the international community prior to making any financial commitments even for the proposed RDC (FS para 30.5 page 78).

In comparing the analysis of the Feasibility Study with the Study of Alternatives, FoEME believes that the recommended path for our own governments to take, Jordanian, Israeli and Palestinian, and for the international community to support, is to reject the Red Dead Conduit option and support the combination of alternatives that builds on the local experience developed in the region over this last decade.

The World Bank's Study of Alternatives has stated for the first time what FoEME has been advocating for over a decade; that the Lower Jordan River can be rehabilitated, the Dead Sea stabilized, and sufficient water made available to our respective publics without the risk of undertaking an experiment that constitutes 'playing God' by mixing two seas, leading to likely irreversible damage to the environment and the political instability of unparalleled public debt.