

**Trans-boundary Water Management:
The Israeli-Palestinian Case
11:30 - 13:00, Wednesday May 27th, 2009
International Conference Center, Zalman Shazar St. #1, Jerusalem**

Meeting Notes:

Agenda:

Session Chair: Gidon Bromberg, Israeli Director, EcoPeace / Friends of the Earth Middle East

11:45 – 12:00

Dr. Vijay Jagannathan, World Bank, Sector Manager Water, Middle East & North Africa Region.

Dr. Pier Francesco Mantovani, Lead Water Supply and Sanitation Specialist, Task Team Leader. *Presentation of April 2009 World Bank Report entitled, Assessment of Restrictions on Palestinian Water Sector Development*

12:00 – 12:15

Dr. Yossi Dreisen, Israeli Water Authority, advisor
IWA Response to World Bank Report

12:15 – 12:30

Fuad Bateh, Palestinian Water Authority, consultant
PWA Response to World Bank Report

12:30 – 12:40

Dr. Itay Fischhendler, Hebrew University of Jerusalem & Dr. David Katz, Tel Aviv University
Policy Packages for Offsetting Upstream Downstream Retaliations: The Case of the Mountain Aquifer

12:40 – 13:00

Discussions and questions from the audience

- Introduction by Gidon Bromberg, Israeli Director EcoPeace/Friends of the Earth Middle East:
 - Key findings as to present Joint Water Committee (JWC) management of shared waters:
 - Failure to meet basic needs of water provisions and fair share for Palestinians.

- Failure to deal with sanitation and pollution prevention (overwhelmingly from Palestinian sources).
 - Failure to implement sustainable policies.
 - Must reform current management of JWC which is based on:
 - 1) Unilateralism, 2) conditionality, 3) over-extraction and 4) secrecy
 Reform of JWC and whole bilateral process so that supports:
 - 1) Intensive cooperation based on Palestinian empowerment and a common vision, 2) information sharing and joint fact finding, 3) sustainable utilization and 4) openness and transparency that will lead to public accountability of results.
- Presentation of Pier Francesco Mantovani, Lead Water Supply and Sanitation Specialist, Task Team Lead, on the World Bank World Bank Report: “Assessment of Restrictions on Palestinian Water Sector Development.”
 - Slide 2: This study is the result of collaboration with many partners in Israel, the Palestinian territories and donors.
 - Slide 3: The aim of the study is to raise awareness about the factors that are stunting development of water sector in the Palestinian territories and to assess the environmental impacts in the areas. This is a preliminary assessment; it is not conclusive.
 - Slide 4: This study has a limited scope: the Bank tried to avoid handling water as final status issue. They did not want to revisit Oslo II or focus on compliance with it.
 - Slide 5: It is very difficult to access reliable and comprehensive data on this topic. The Bank decided to perform fieldwork in order to fill in the gaps in the data and to add a human element to the report.
 - Slide 6: Since completing the report, the Bank has received feedback from both governing authorities.
 - Slide 7: There are some very strong contrasts between the West Bank/Gaza and Israel: Israel is much wealthier than Palestinians, Israel has a much more sophisticated water sector. Israel uses an estimated 240 m³ per capita while the West Bank uses only 75 m³ per capita. Both parties must take a dynamic approach to water—water is becoming even scarcer, which requires the parties to be able to make adaptive change.
 - Slide 8: The Oslo agreement was envisioned to apply for 5 years, not indefinitely. JWC was supposed to operate by consensus.
 - Slide 9: Situation 14 years later: extremely underdeveloped Palestinian water sector. The level of underdevelopment of water sector in West Bank stands out among other developing countries.
 - Slide 10: The situation in Gaza is even worse. The water is unsafe for drinking in 90% of cases. The master plan in Gaza is good but only 2% of it has been implemented. A critical factor is the closure of borders, which prevents entry of materials needed for maintenance and development.

- Slide 11: Oslo's goals haven't been met—there's a growing inequity between Israel and the Palestinians.
 - Slide 12: Poor water development has had very substantial impact on the Palestinian economy – as much as 10% reduction in GDP.
 - Slide 13: Exogenous factors that are preventing the development of the water sector include: the Joint Water Commission approval process, the Civil Administration permitting regime, and Movement and Access (M&A) restrictions.
 - Slide 14: There has been a substantial drop in JWC work meetings since 2001. The committee is impaired by inequality of power and information. The Palestinians must compromise on settlements in order to get projects approved. About 140 projects are still pending at the committee level.
 - Slide 15: The second tier of exogenous factors has to do with the permitting process that applies to Area C projects under Israeli civil administration. The Bank asks whether the restrictions are not excessive? Study filled with case studies that suggest that area water enforcement runs counter to basic needs of the Palestinian populations.
 - Slide 16: M&A restrictions add significant delays to the implementation of water projects in the West Bank and essentially paralyze projects in Gaza.
 - Slide 17: These exogenous factors create a backlog of permitting, approval and implementation of projects.
 - Slide 18: Endogenous factors at play as well. For instance, the PWA is plagued by poor institutional governance, poor planning and a lack of accountability. The PWA has lost its momentum and must re-invest, restore and augment organizational and managerial capacity.
 - Slide 19: Third type of factor is neither exogenous nor endogenous—it has to do with efficiency of aid. Efficiency of aid has been greatly compromised. Today, aid is increasingly focused on emergency projects that do not build a consistent or optimal infrastructure. This approach stems both from security and political concerns as well as donor discouragement because of low permitting approval.
 - Slide 20: Deficient governance system in the West Bank impairs Palestinian water sector development.
 - Slide 21: Suggestions going forward: within the Palestinian Authority, there needs to be more strategic planning, accelerated investment in water planning, greater development of waste water treatment and reuse. But, external factors, stemming from Israeli occupation related issues and malfunctioning of the JWC are decisive. Need to develop an Israeli/Palestinian dialogue, starting with shared “baseline” water data.
- Israeli Presentation, Dr. Yossi Dreisen, Advisor to the Israeli Water Authority

- Introduction: “Let me start from the World Bank’s first sentence, the whole study was requested by the Palestinian Authority. We are looking at that as research or study that was done for the Palestinian Authority. There are many remarks, particularly information data, which is, as far as we know, not correct. At least, not according to the information or data that we have.
- We must understand first of all that the geology of this area does not follow any hydrological lines—part of the aquifer is confined, part not. We have better information now than we did 14 years ago about the potential and how the flow goes around. We also know that we can pump water mainly from the lower grounds and not the upper grounds... this is well understood now.”
- Slide 5: In 1967 total consumption from Israel, from all sources, was 140 MCM/yr, versus 60 MCM/yr for the West Bank. By 2006, Palestinian consumption had increased 3 fold.
- Slide 6: Looking at per capita consumption, since 1967, Israeli per capita consumption has declined significantly while the Palestinian per capita consumption has increased.
- Slide 8: The Bank’s data focuses on a single year 2006—but in that year Israel withdrew much more than average. Need to look at the average of years. Looking at the average, Israeli abstraction quite below regional norm.
- Slide 9: Comparing Israeli data to the Bank data. Israel believes that the West Bank has more than 100 m³ of available resources per capita; According to the Bank, it has only 75 m³.
- Slide 10: Future additional needs of Palestinians in West Bank: the 23.6 was supposed to be taken out of the future needs, not in addition to future needs.
- Slide 11: The Palestinians are violating their obligations under Oslo by failing to treat wastewater.
- Slide 12:
 - Israel made available 70 MCM even though only 23.6 were agreed to.
 - If all the projects that were already approved would supply water, this figure would go up to 200 MCM, so he doesn’t see why people should say the agreement has not been complied with from the Israeli side.
- Slide 13: Many of the wells on this map were not constructed, but they were approved by JWC.
- Slide 14: (skipped)
- Slide 15: (skipped)
- Slide 16: (skipped)
- Slide 17: Total production of the new wells that were approved by the JWC provides over 14 MCM.

- Slide 18: He doesn't see unauthorized Palestinian wells as strategic problem. But, he agrees with the Bank that these pose problems for Palestinian neighbors.
- Slide 19: Israel believes only 1100 MCM remains in the Israeli sector.
- Slides 20 & 21: Israel doesn't want to give any additional water from the aquifer outside of eastern aquifer; it wants additional water supply to be gained from desalination, wastewater treatment and decreasing network losses. Says Israel presented the Palestinians with plans for desalination plant but that the Palestinians rejected the idea.
- Palestinian Presentation, Fuad Bateh, Legal advisor to the Palestinian Water Authority
 - Slide 1: Oslo II Agreement doesn't contract away Israel's responsibility under IHL as an Occupier to provide the Palestinian people with water and wastewater services. Israeli implementation of the Oslo II "water" articles has been insufficient to date to meet the water requirements of the Palestinians not only for Industrial and Agricultural uses, but also important Domestic uses. The situation in Gaza is bleak: only 5-10% is of drinkable quality. Whereas in the West Bank, the average domestic consumption is 50 liters per capita per day contrasted to WHO minimum guidelines of 100 L/C/D.
 - The Palestinian approach to Gaza has always been that Gaza should not be expected to provide for its own water from the groundwater that underlies coastal strip (recharge is 60 MCM and demand is 170 MCM per year) — Israel needs to recognize its responsibility and provide Gaza with water from its portion of the Coastal Aquifer (or other sources) in accordance with the equitable and reasonable utilization of the shared water source.
 - The West Bank would have enough resources if the two parties reached equitable allocation of water. Oslo was an *interim* agreement — only supposed to be in force for limited period of time, but the Palestinians are compelled to continue to live under the Oslo II outdated arrangement.
 - It's strange that the current situation under Oslo II through the Joint Water Committee only focuses on control of one party's water development. Palestinians have no say on the management of this trans-boundary water management inside Israel — whereas Israel has a de facto veto over the management of Palestinian development of the trans-boundary water resources.
 - Slide 2: Oslo agreement really talks about the *potential* of aquifers; he thinks that the focus should be on the actual observed yields since Israeli has been over-abstracting from the trans-boundary groundwater for years without sharing any benefit with the Palestinians or requesting their approval on abstractions exceeding the agreement. With regard to the question of those wells on the other side of the Apartheid Wall, Palestinians now need to be compensated

for the wells that are no longer in their possession. A source of great contention for Israeli officials, Palestinian unauthorized wells inside the West Bank only hurt the Palestinians because they tap into the uppermost level of the aquifer, which doesn't affect the deeper shared water resources. Furthermore, the Israelis must realize that if the unauthorized wells are not affecting shared waters, then these wells are not covered by Oslo II.

- Slide 5: He refutes the Israeli claim that since they are down stream they can't affect Palestinian production. It's true that most of the productive area of the Western Aquifer is in Israel, but they still affect Palestinian production as Israeli over-abstraction lowers the water level below the level where pre-1967 Jordanian wells tapping the Western Aquifer inside the West Bank can be productive, and Israel has prevented any new wells in the all important Western Aquifer since 1967.
- Slide 6: Despite the World Bank report emphasizing that Israeli domestic consumption is more than 6 times Palestinians in the West Bank (see Footnote 29), the disparity between what is available to the average person in Gaza is 1/50 of the Israeli availability if we look only at the water that is safe to drink in Gaza which Israel asserts we must only consider blue freshwater. Referring to the Israeli response paper and Mr. Dreizen's presentation, Mr. Bateh says Israel needs to be comparing apples to apples rather than distorting the comparative picture of per capita freshwater availability. Mr. Bateh stresses that Israel also creates water through desalination, which increases Israeli domestic water consumption.
- Slide 7: Mr. Bateh says he is happy that Israel's Response paper to the World Bank assessment, which has been endorsed by the Israeli Ministry of Foreign Affairs, and subsequent letters, says that Israel does not require of Palestinians that settlements should be connected to new wastewater treatment plants. Mr. Bateh says this hasn't been the Israeli position in the past.
- Actual additional allocation of water to Palestinians since Oslo is 12.3 MCM/yr—whereas the Israeli Response paper suggests that new productions for the Palestinians in the West Bank is more than 50 MCM/yr. Mr. Bateh says Israel is wrong to add up figures derived only from pump tests and from JWC approvals without looking at actual production, as many of the wells locations were changed by the requirements of the Israeli Civil Administration, and located in non-productive locations. He questions the World Bank figure showing 135 MCM in 2006, but thinks the World Bank report figure of 113 MCM for 2007 is correct. More dramatic, the total West Bank production (from Wells and Springs) for 2008 is only 85 MCM which is well below the 118 MCM baseline agreed in Oslo before additional Palestinian development and provision of water supply from Israel. Says we should stop looking at mere Oslo compliance and start

looking inadequacy of supply from international humanitarian law in meeting the water requirements of the Palestinians.

- Slide 8: With regards to wastewater pollutions generated from the West Bank and flowing into Israel, the recent Israeli Park's Authority report clearly shows that Israelis have control of the Jerusalem area, which is biggest source of wastewater pollution in the West Bank. Thinks this suggests that Palestinian should be in charge of sewage plants inside West Bank for treating this wastewater and that the Israeli government untrustworthy as they have denied development and used Palestinian VAT funds to unilaterally build treatment facilities inside Israel to deal with wastewater from the West Bank.
 - Closing: With respect to the proposal for desalination, he does not think desalination should be proposed as a substitute for reallocation of trans-boundary water resources in accordance with International law. He does not think that the cost of desalination of water makes economic or technical sense for the Palestinians in the West Bank, particularly because of the long distances the water would have to travel and the end costs are 6 times the cost of production for Palestinians if they had access to the water beneath their feet. He also doesn't like that desalination option sold to Palestinians in the West Bank and Gaza would increase Israeli supply control over Palestinians and creates the perverse opportunity for Israel to cut off water as they did electricity and fuel to Gaza. However, he recognizes that desalination, as well as wastewater treatment, bulk importation, conservation, and efficient management of resources create the opportunity to for a equitable and reasonable reallocation of the Palestinian rightful share of trans-boundary water resources.
- Presentation by David Katz, Tel Aviv University "Linkage Politics in Israeli-Palestinian Relations,"
 - Slide 1. Purpose of the study is to explore the linkage between water issues and other issues. Policy linkage can be positive or negative, but policy packaging is inherently positive.
 - Slide 2. Questions posed: to what extent have Israeli and Palestinians been successful at policy linkage?
 - Slide 3. Why do parties link policies?
 - Pros:
 - Can create a win-win out of an otherwise zero-sum game.
 - Can enlarge the set of acceptable options
 - Allows multiple issues to be resolved efficiently
 - Allows for holistic approaches to problems
 - Allows for economies of scale
 - Cons:
 - Needlessly slows or complicates negotiations

- Allows parties to hold certain issues hostage
 - Creates institutional uncertainty and conflicts
 - Spillover effects to other issues
 - Slide 4. Typology of water linkages varies from intra-basin to inter-basin and single water issue to multiple water and non-water issues. As you go up the scale in terms of scope (from intra- to inter-basin) or increase the number of issues covered, you expand the options but also transaction costs.
 - Slide 5. People generally said that there were not linkages when asked about the issue directly. But, the researchers found many linkages – linkages present 30% of the time. .
 - Slide 6. Examples of observed linkages:
 - Water for efficiency improvements
 - Water drilling permits for waste water treatment.
 - In some cases, also see type A3 linkages such as Israelis saying “we don’t want the sewage, but if sewage comes into Israel then we’re going to charge for treating it.”
 - Slide 8. Some of the linkage was done by the Palestinians, not all by the Israelis.
 - Slide 12: The greatest number of protocols with linkages were introduced in 1997 and 1998. This was also the period of the most protocols, so it’s not surprising that it has the most linkages as well.
 - Slide 15. Both sides overwhelmingly employed negative linkages. In other words, conditionality that made use of some type of sanction.
 - Slide 17. Both sides initiate linkages, although the Israelis do it more often than the Palestinians.
 - Slide 18. Much broader range of linkages, both positive and negative, in the media. Greater likelihood of proposals for severe negative linkages in the media. The only seriously proposed positive projects where Red-Dead project, joint desalination and water importation from Turkey.
 - Slide 20. Main conclusions of the study are that we do see conditionality and do see linkages but many of these linkages are coming from outside the JWC, so they’re not necessarily the ones to point a finger at. Linkages often coming from Israeli civil administration or the Palestinian Authority. Ratio of negative to positive linkages has increased since the mid-1990’s.
- Q&A.
 - Q. [Wilson Dizard, from Ohio State University]: What practices have the Israeli and/or Palestinians put in place to respond to climactic changes? What in the future will happen to all Israeli surface waters including the Sea of Galilee?
 - A. (Fuad Bateh, Legal Advisor to the Palestinian Water Authority): He says that climate change is outside his area of expertise. There are some concerns of variability, but in terms of direct impacts in the

region, the jury is still out. In this region, we've often seen climactic variation. Currently in a drought period that is affecting the Palestinian community.

- A. (Dr. Yossi Dreisen, Advisor to the Israeli Water Authority): Israel is aware of the climate change situation-- Israel has been in a drought for five years in a row. In response, Israel squeezes quota for agriculture and water allocated to nature. Israeli supply to the Palestinians is not affected by climate change.
- Q. [Hydrogeologist from Germany]: Question is about the 14 MCM from new wells that Dr. Dreisen had mentioned. If we have new water from wells since Oslo, doesn't this prove that the Israelis aren't giving enough to the Palestinians? Aren't the Israelis failing to provide enough wells in the West Bank?
- A. (Dr. Yossi Dreisen, Advisor to the Israeli Water Authority): He agrees that we don't need to speak about 1 MCM here or there. He believes that the solution where one is giving water to another not acceptable. Israel today is extracting more from aquifer than it was in 1967. Therefore, both parties need to find ways to expand water supply to reach solution. The only solution is to expand supply. Foreign donors are prepared to pay most of the investment money in desalination and wastewater treatment and it would be economically feasible to move forward with this.
- Q. [From journalist at the Jerusalem post]: Some people say that there is a cultural objection to reusing wastewater in the Palestinian territories. Is this true?
- A. (Fuad Bateh, Legal Advisor to the Palestinian Water Authority): There are pockets of people who object to wastewater treatment. But, the importance of this belief shouldn't be overstated. The Palestinians already buy produce from Israel, which irrigates with wastewater. The government's policy is that the Palestinian Authority has to look at all sources of water, including bulk importation and wastewater treatment. Says Israel is currently producing 140 MCM of desalinated water and by 2013 will be producing approximately 500+ MCM which Israel has the potential to extend through wastewater treatment and re-use an additional 70% adding almost 850+MCM to the water balance. Moreover, Israeli long-term desalination planning plans to have over 1250+ MCM on-line by 2025 – not including the possibility of the Red Sea Dead Sea project – that would increase today's water balance by more than 2125+ MCM in the future. So Israel's own long-term strategic plans creates the opportunity to reallocate the Palestinian "equitable and reasonable" share of trans-boundary water back to the Palestinians in accordance with international law.
- [Washington brought back into the discussion]. Gidon Bromberg of Friends of the Earth Middle East asks how we can understand the large discrepancy in the numbers presented by the two sides?

- Response from Vijay Jagannathan, Sector Management Water, Middle East & North Africa, World Bank:
- He begins by noting that both sides were given drafts to respond to before the report was released. Why do the numbers differ so much? The linkages that Dr. Katz spoke about might be partly responsible. This report deliberately kept out of international water law (note: Mr. Bateh invoked international law during his presentation to support his claims of Israeli non-compliance with international water law and the laws of occupation) because status of law so unclear. The Bank representative expressed a need to focus on commonalities. There is a shared hydrology. There is a need for regional cooperation.
- Looking at risk versus uncertainty: Throughout the world we have tended to rely on risk mitigation. But, here this is more difficult. First, there has been a population explosion in the region—7 times increase in Palestinian population [he didn't specify since when]. In today's context, climate change is the reality and whichever projections you look at, so elements of uncertainty inform the risk. Any hydrological planning might not work due to climate problems. Both the exogenous and endogenous factors are key. His hope is that this report is the first in long step of sharing information so that both can start to look at positive linkages rather than focusing on what is not working. Money is not the problem-- Even getting a 5 million dollar project implemented is an impossible task because of various exogenous factors.
- Closing, Gidon Bromberg, Israeli Director, Friends of the Earth Middle East:
 - Dramatic water shortages will be felt this summer in the region. The burden will be felt primarily by the Palestinians. We need to focus on institutional reforms such as reforming the JWC and facilitating more cooperation between the two parties to improve the situation, beyond just meetings, but actual improvements on the ground.

Meeting Notes recorded by Danielle Spiegel, FoEME