# Participatory Workshop on Environment and Security Issues in the

### Southern Mediterranean Region

### Amman – Jordan 18-22 June 2012

# Session II: Water Scarcity and Land Degradation- Identifying the Causes and looking for Solutions

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We are the only organisation that is Jordanian, Palestinian and Israeli, not only in the field of the environment, but in any field. That is both sad but maybe also encouraging. Water scarcity is very real, and it is really something I have only come to know from the nature of the organisation I have come to work in. Because in Israel, where I come from, when you turn on the tap, there is always water. There is a twenty four/seven system, it is a highly sophisticated system, there is certainty and there is public trust in the water supply system. Looking at a regional level, in Palestine and Jordan, I have come to experience, firsts hand, water scarcity. It is very real. When I go to our office in Bethlehem, or my office in Amman, there is no certainty that there will always be water, and after awhile I will consider going to the bathroom before leaving Jerusalem. Because in Bethlehem there is absolutely no guarantee that there will be water to flush the toilet.

Many of this audience understand all too well that too much of our water supply, for domestic water supply, particularly in southern Mediterranean countries, depends on allocation between neighbourhoods, where water is stored on the top of a roof, supply is provided once a week, once every two weeks, once a month, supplied by the municipality. And therefore one has to be extremely careful, that you cannot shower every day, certainly not when you have six or seven children, unless you are very wealthy and you can buy tanker water at twenty times the price. And that is of course the exception and not the rule. Water scarcity in this hotel is not so much felt, for very many Jordanians and Palestinians it is very prominent in their daily lives. And for those of us who don't live in a State of water scarcity have to come to terms with that and grapple with that. Firstly I would like to speak about why do we care? Why is water scarcity an area of concern? First and foremost because at the domestic level access to water is now established as being a human right. And we have an obligation, and our state has an obligation to provide water for basic domestic purposes. Basiclly that is not a big deal. Health organisations speak about a hundred liter of fresh water per person per day. And maybe Thirty to fifty would be sufficient and the rest could be supplemented by other sources. Water is an absolutely important issue, because we understand that water is life, not only for domestic consumption but for every other aspect of our livelihoods, such as agriculture or industry. I also want to highlight that water scarcity is important because nature has the right to water. We have no right to completely destroy our natural ecosystems. And in doing so, we destroy the systems that in the long run we are all dependent on. So water for nature is an important aspect of the discussion on water scarcity, which is often forgotten. The background paper speaks about some of the causes of water scarcity. And I want to go through those causes, but maybe from a little bit of a different perspective. Of course, precipitation levels are a cause of scarcity. When you are in a tropical country or in Marseille, on the European side of the Mediterranean, water scarcity will touch on different issues. I spoke to farmers in the eastern district of Shri Lanka, and they said that they live in a situation of scarcity because they get less than a thousand millimetres of rain per annum. But in our part of the world in the Southern or Eastern part

of the Mediterranean, we wish we would get anywhere near a thousand millimetres of precipitation. But for their climatic conditions a thousand is living under scarcity because the rest of Shri Lanka lives under three or four thousand millimetres of rain per annum. As highlighted in the paper, scarcity is very dependent on geographical location. Scarcity is also associated with competition, especially competition between States, because many water resources cross political borders. Scarcity can also be man-made. When I look at our own situation concerning Israel and Palestine, then occupation, the current regime, article 40, very much sets how water is shared. It is not an issue of fairness, or an issue of sustainability, it is an issue of power. That is not unique to our part of the world. For instance in the Nile Basin, power relations determines how water is shared between the riparians of the river. And if we look at Euphrates and the Tigris, power relations dominate. These are causes we need to grapple with and they are not unique to any two sets of countries or any region. The US and Mexico, the same thing: power relations have dominated that allocation of resources. The local management causes of scarcity are of course those that each country can respond to and deal with. When it is cross border it is more complicated because of the power relations involved. But as far a local management is concerned, the level of infrastructure and price is a critical issue or the lack of pricing. The priorities between sectors, population, often an issue fearful to bring to the foreground of the discussion, and consumption patterns, are key issues to whether we are managing our water resources sustainably and reducing scarcity. And finally when it comes to causes, we have climate change, which is at the international level, where not one country can be held responsible. It is very much North America, Europe, China, India who are responsible, but we in the Southern and eastern Mediterranean are suffering the consequences.

When we go to the issue of solutions, we in the Middle East, we would propose, as in everything we propose, that we must first and foremost look at the root cause of the problem in order to deal with the solution. Therefore, when we look at natural precipitation, we need to live according to our means. We dealt in FOE with this issue for twenty years, there are some who propose that Israel should look like Scotland. It comes from a notion that plenty of water will make us feel prosperous. But the cost of making a country appear as if it is in a different climatic zone is completely unsustainable. There is a lack of awareness about the costs of trying to change climatic zones, by mostly having to produce new water to do so. So living within our means of our climatic zone is absolutely crucial if we are to manage scarcity. Which, as we have seen, is natural. Scarcity is not necessarily unnatural to many parts of the world and certainly our part of the world. When there is competition between states, it is important that we strike agreements. Because lack of agreement means we our only dictated by the power divide how our water resources are shared. And that power fluctuates over time: one side is powerful for the moment, later the other side will be more powerful. The response, although it is the exception, can be military action. We have seen this here in the Middle East, between Israel and Syria, on two occasions. But also verbal charges, heightened security concerns when threats are made of military action. When it comes to competition between states, we need to strike agreements, and agreements that have two important features, one that it is based on a notion of fairness. And I would argue that the current water arrangement of Oslo article 40 is not fair. It is not fair to have an 80/20 divide. The good point is that the arrangement was never made as a permanent arrangement, it was an interim arrangement. But we never moved forward. And we need to move forward in the Israel-Palestine case. But also in the other basins, when you look at the historical agreements on the Nile, they are colonial based. We really need to move forward on the Mile River Agreement and move to an agreement that is based on fairness. On the Euphrates, we are not talking, and that is dangerous because that is going to lead to heightened conflict. But is not only a notion of fairness, I am not trying to dictate what fairness would be, tat has to be negotiated very specifically, but there must be a sense of fairness. It is also an issue of resilience. An agreement that deals with fixed water allocation between parties doesn't speak to reality. Particularly in a time of rapid climate change. And when I speak about the Israeli/ Jordan Peace Agreement, when Israel agrees to transmit 50 million cubic meters every year to Jordan, Jordan commits to give 25 million from the Yarmuk to Israel, these agreements don't deal with the changes in precipitation, impacts of climate change. That hasn't been written into the agreement and that is in no parties' interest to sustain agreements that are not resilient to the change in precipitation or the climatic conditions that we face. They will lead to a sense of unfairness to a sense that the agreement is unsustainable and thirdly and not lastly, those agreements struck cannot just be for the benefit of the domestic populations. These agreements must provide sufficient water for nature and has to deal with the different water bodies and the Jordan river and the Dead Sea are classic examples where there was a failure and wording that has speaking about the rehabilitation of the Jordan but there was insufficient action. For the last twenty years for the most part there were continued unilateral actions that demised those ecosystems. When we go to local management there are many good experiences of dealing with scarcity through sound policies and Tunesia and certainly Israel and Jordan have fabulous examples of re-use of waste water. Some of the worlds' leaders are around this table of how to capture waste water and re-use it for agriculture. We still have more to go and we still need to do much better but we have a sense of good practice. There are some initial good steps taking place on pricing. We need more governments willing to deal with a difficult issue: increasing pricing to reflect scarcity is absolutely necessary if we are to sustainably manage our water economy. We see some increase of pricing in the domestic sector and we see initial attempts to grapple with pricing in agriculture. And we see in this sense some good progress in Israel concerning the rise of the price of water in agriculture, which will reduce unsustainable practices. But there are many more additional steps that need to be taken. In the majority of the countries in the region water still tends to be free, or next to free for our agricultural communities, and that doesn't encourage efficiency. Why would you invest in dripirrigation at cost if you are receiving water for free. Why would you agree to take waste water when you can receive fresh water for free? On the local management level an enormous amount can be done on awareness we see investments in public education, which is critical, but they tend to done during drought periods so when there are periods with more rain the investments in awareness decline. We need to start in the kindergarten, not on the television screen as commercials, it needs to be part of the educational curriculum of every individual in this region. And we also need more laws for nature. In some countries water for nature is recognised, but in very few of our countries where a law exists, is there actual allocation. The Jordan hardly reaches the Dead Sea, the Nile hardly flows into the Mediterranean. All of our coastal streams are turns into sewerage canals, where once there was fresh water. But there is also technology. And the next speaker will address desalination as an important contributor to counter scarcity. While FOE Middle East think that desalination has a very important role to play, we believe that it is a technology of last resort and not of first resort. Precisely because of implications large scale desalination is having on the incentive to conserve water. And here I give the example of Israel, which I know intimately, FOE ME would argue that going beyond 350 Million, going beyond half of the domestic water supply need starts to create incentives not to conserve, particularly because of the BOT system in place and build operation transfer there is the private sector who are being guaranteed quantities of water that will be

purchased by the government irrespective of the conditions on the ground. The current Israeli government is speaking of 700 Million cubic meters as its target. And Israel is well on the way on reaching that target. In two years we will reach 500 Million cubic meters of desalinated water. The government will have to purchase that water, whether there is a need of that water at a particular time or not, thus leading to less incentive to conserve water. We had seven years of drought and desalination played a very important role. But the next five years might be years of plentiful water. What will happen to those desalination plants? There is a commitment to purchase that water irrespective of need. There was an television advertisement saying: "conserve now, but in two years the desalination plants will come on board, the situation will look different." Thankfully the Ministry of the Environment objected to that add and that add was removed. The other implications of these types of technological fixes like CO2 emissions, it is all about burning fossil fuels, if solar energy was the solution than perhaps there wouldn't be a problem but that is not the energy source used in any of our Mediterranean countries. The implications for the Mediterranean Sea, particularly the brime that is deposited. While the impact of one desalination plant might not be significant, but the cumulative impact of so many desalination plants in so many of our countries we really don't know. There has not been enough studies done to know this. What is important to realise is that there is no single solution. And the final cause: climate change, which needs an international agreement that has been so disappointing because of the lack of political will by the international community,: to reach consensus, to grapple with a deal, concerning man-made climate change issues. Finally, we have an obligation concerning international agreements when dealing with transboundary waters, as neighbours of all the countries around the Mediterranean, we have a responsibility to put in place systems of early warning. Because water scarcity is unacceptable. We cannot accept water scarcity when one country, be it the Northern Mediterranean countries, be it pockets of highly sophisticated water economies within the east or the south, these levels of disparity are issues we need to manage much better if we are to create the type of community around the Mediterranean we wish. We all have an interest and a desire to achieve.