

A Plan for the Possibility of Peace¹

Introduction

John Maynard Keynes wrote in the Introduction of the *Economic Consequences of the Peace*: "The power to become habituated to his surroundings is a marked characteristic of mankind." This insight applies to the current situation in the Middle East. We have become so habituated to the current formulation of the problem that it seems insoluble. The current conflict was created by a powerful and diverse sequence of historical events that shaped the twentieth century. The partition of the Turkish Empire after the First World War, the return of the Jewish people to Palestine after almost 2000 years, the Holocaust which gave moral legitimacy in the minds of many people to the creation of a Jewish state, and the wars between Israel and Arab states in 1948, 1956, 1967 and 1973 defined the current situation. The problem was further complicated by the Cold War. The historical responsibility for the current difficulties is widely shared.

There is no need, however, for these historical events to continue to define the issues in the Middle East conflict. The United States and Mexico share a history that is in many ways as difficult and as contentious. Texas, New Mexico, Colorado, Arizona and California were once part of Mexico and were taken by force. Nevertheless, relations between the two countries have changed to the mutual benefit of both countries.

¹ John Maynard Keynes once offered a toast: "To the economists. They are the guardians, not of Civilization, but of the possibility of Civilization." This, however, was after the Second World War. Individuals concerned with the current problem in Palestine should read *The Economic Consequences of the Peace* and in particular Chapter III, the last paragraph in Chapter V and Chapter VI.

Similarly, the European Union evolved in spite of two World Wars that inflicted millions of casualties to the parties concerned.²

If the Arab world accepts the existence of Israel, as indicated in Saudi Crown Prince Abdullah's recent statement, and Israel accepts the right of the Palestinians to have a separate state, then economic problems can be defined in a manner that is manageable. The economic task is to find a way in which six million Israelis and four to six million Palestinians can live in dignity with a reasonable standard of living; it is not necessary that they trade or have friendly relations. The solution to this problem requires water, land, capital and institutions. However, to create a viable economy in Palestine that is not dependent on Israel and is able to absorb the Palestinians in exile and in refugee camps it is first necessary is to define rights to water and land.

Land is not scarce. Water is scarce in the region only because most of it is allocated to agriculture, which produces a very small fraction of GNP. Capital should not be a problem if the European Union and the United States give the necessary aid. Developing the necessary institutions for a viable economy is ultimately the responsibility of the Palestinian people.

This proposal has three elements: first, to transfer to the Palestinians an additional 500 million cubic meters of water a year; second, to expand the area of the Gaza adding part of the Negev desert that is currently essentially uninhabited as a transitional swap for land along the Green Line that could accommodate the consolidation of Israeli settlements in

² For example, in 1945 in Czechoslovakia, the Benes decrees stripped 2.6 million Sudeten Germans of their citizenship and property without compensation and expelled them from Czechoslovakia. It is reported that 19,000 Germans were killed in the process. This is far worse than Palestine in 1948. See *The Economist*, August 17, 2002, p.41.

an area that could become Israel proper in a future peace agreement, and third, to freeze the amount of all land allocated to agriculture in Israel and Palestine. The goal is to allocate water and land between Palestinians and Israelis equally in non-agricultural use.

This would require the development of the Negev. In the short run, developing the Negev would channel the energy of the Palestinian people into building the infrastructure for a Palestinian economy. Building infrastructure creates jobs. In the long run, eliminating the huge economic inequality between the two states will reduce the hostility between the two people.

Statement of the Problem

Many key players may prefer the status quo to any of the proposed solutions. The Palestinian leadership may prefer the status quo to any solution that permits Israel to exist as a separate non-secular state. There are members of the Israeli elite that believe that it is possible to impose a solution where a Palestinian state exists under Israeli suzerainty and where Israeli settlements in the West Bank enjoy extraterritorial rights. Both scenarios are formulas for continued violence and instability.

An important reason why any settlement seems almost impossible is that for many of the parties involved, the status quo would dominate any of the proposed solutions because of the inequality in income and power that would result. Under current circumstances, a Palestinian State would be a nation of over three million people with per capital income of around \$1,300. This is less than Haiti and only somewhat better than North Korea.³ At

³ *World Factbook* 2001.

the present time, Palestine has no significant industry or agriculture.⁴ Almost half of the population is under 14 years of age, and is growing at over 3.5 percent a year.

Unemployment is about 40 percent.⁵ If the Palestinian workers were again granted access to the Israeli labor market, there would be serious social and psychological problems. The Palestinians would be the janitors, maids and waiters. The perception of Palestinian inferiority would be perpetuated among Palestinians and Israelis.

The age structure and the rate of growth of the population would make it impossible for domestic savings to generate the capital for the investment in industry and infrastructure that would be necessary to lift Palestine from this abyss. A new Palestinian state would likely have a difficult time attracting foreign investment. Under present circumstances, an independent Palestine would be a beggar dependant on the charity of the rest of the world.

In contrast, Palestine's neighbor Israel is an economy of six million people with a per capita income near \$20,000. It has sophisticated industry and agriculture and well-defined institutions. If Israel does not have the burden of spending over 7.5 percent of its GNP on defense (over 8 billion dollars a year), it would not need foreign aid. Palestinians would look at Israel and believe that, but for the Jews, that prosperity would be theirs.

It would be difficult, if not impossible to keep the peace under such circumstances; It is not surprising that no Palestinian leader can make an agreement that recognizes Israel's right to exist and expect to be able to control the more radical elements. Similarly, it is

⁴ This paper will refer to that part of the occupied territories and any other land that becomes part of the Palestinian state as Palestine.

⁵ Ibid.

certain that Israel would intervene in Palestine if there were attacks against Israel from Palestine.

Water and Agriculture

One of the most apparent inequalities in the Middle East is the amount of water available to Israel as compared to the Palestinians.⁶ The daily domestic water consumption is 275 liters per day for an Israeli and 50 liters per day for a Palestinian. Although demand for water is a function of income, customs and other factors, one of the most important reasons for the scarcity of water is the amount of water used in agriculture.⁷

Agriculture is a very real obstacle to a solution of the problem of Palestine. Agriculture is the marginal use of water in the region and water is the limiting factor in this activity. In Israel, 63 percent of the water consumed is used in agriculture to produce four percent of the Gross National Product. In Palestine, 62 percent of the water consumed is used in agriculture to produce nine percent of the Gross National Product.⁸ Water allocated to agriculture is subsidized. The problem could likely be solved if water were to be allocated in an economically rational fashion and the amount of water allocated to agriculture reduced. This is probably not politically feasible. It is necessary to take the amount of water allocated to agriculture as a given condition. However, it may be possible to prohibit the further expansion of agriculture in the region.

⁶ Libiszewski (1995)

⁷ It should be noted that Frank Fisher's work on the rational use of water is the foundation upon which this proposal rests.

⁸ Libiszewski (1996)

This suggests two fundamental principles for an agreement on the allocation of water in the region:

First, water rights should be allocated so that every inhabitant of the former British Mandate of Palestine has a right to water equal to the per capita consumption of water by Israel in non-agricultural use as of a certain date. As the populations of the region increase, agriculture would be the lowest priority claimant.

Second, there will be a freeze in the amount of land allocated to agriculture in the Palestinian State and Israel as of a certain date.

The first rule can be justified by appealing to the Coase Theorem and to a fundamental idea of fairness.⁹ Well-defined property rights create the possibility of an efficient allocation if a market in water is developed. Equal shares seem to satisfy most people's conception of fairness.

The second rule is a covenant that prevents the creation of new vested interests in agriculture in the Palestinian State and Israel. If the first proposition for the allocation of water is accepted, Palestine will be a water surplus economy during the early stages of its development. If this surplus water is diverted to agriculture, it will be hard to reverse the process. Agriculture appeals to some societal instinct that seems to grant it a dispensation from rational policy calculations.

What is the cost of supplying the Palestine with water? As a starting point let us assume that the amount of water needed for Palestine's economy is based on the consumption in Israel in 2000 for non-agricultural uses. Israelis used 127 cubic meters of water per person for non-agricultural uses in that year, so approximately 500 million cubic meters

⁹ For a discussion of the Coase theorem see Posner pp. 49-52.

of water would be necessary to supply four million people with the same amount of water. Given that Palestinians are current consuming approximately 200 million cubic meters of water a year, this 500 million cubic meters of additional water a year is more than sufficient to meet this goal. Thus, the cost of supplying 500 million cubic meters of additional water to Palestine is an upper bound of the cost of meeting the goal.

Professor Franklin Fisher calculated the cost of to Israel of giving up 60 percent of the water from the Mountain Aquifer. This would give Palestine the right to 80 percent of the water from the Aquifer and supply about 350 million cubic meters of water. He found the cost of doing this is between 43 to 99 million dollars a year under average hydrological conditions or approximately 12 to 28 cents per cubic meter. The higher number assumes that Israel continues to subsidize agriculture and taxes urban and industrial users relative to efficiency prices.¹⁰ Thus the high estimate of the cost of supplying 350 million cubic meters of water a year is less than 100 million dollars a year.

The cost of desalination is approximately \$.65 per cubic meter. The cost of supplying 150 million cubic meters of water a year by desalination would be less than 100 million dollars. Thus, the upper limit to the cost of supplying water to Palestine with 500 million cubic meters of water of additional water would be less than 200 million dollars per year or about \$50 per person. This is not an optimal allocation and it should be possible to use this allocation as the starting point to negotiate a less expensive solution. However, even if the initial allocation is implemented, the cost is not large.

¹⁰ Frank Fisher and Annette Huber-Lee, personal communication.

Further, this cost ignores the fact that if the water is not polluted with heavy metals, it can be reprocessed to agricultural standards at a cost of less than \$.10 per cubic meter. Since agriculture is the marginal claimant on water in Israel, the net cost of granting 500 cubic meters of additional water to the Palestinians is offset by the difference between the efficiency price and the cost of reprocessing wastewater to agricultural standards.¹¹

Land

Gaza has the potential of being transformed into a modern economy that can absorb the refugees if the area is augmented and a modern non-agricultural economy is developed in the region. The gas that has been discovered in the Mediterranean off Gaza can make it energy independent. Modern shipping technology gives it access to markets in Europe if a port is constructed.¹²

The key is to increase the area of Gaza from 360 square kilometers to about 4,000 square kilometers by extending the boundaries south into the Negev and supplying it with sufficient water. The exact amount of land to be transferred will be negotiated; however, 4000 square kilometers is a good approximation if there is to be land to accommodate refugees. Table 1 below gives the current allocation of land and population. The number of refugees is a question that is in dispute. Table 2 gives the allocation of land and population after a transfer of 4,000 square kilometers of the Negev to Gaza.

¹¹ At the present time it cost \$.34 per cubic meter to deliver water to Israeli farmers while the cost to the farmers is \$.16 per cubic meter. See Atwan, et. al p. 11. Professor Ronald Sass estimates that the cost of reprocessing wastewater to agricultural standards is less than \$.10 per cubic meter

¹² George Peterkin, Jr. personal communication.

Table 1

Population Densities before Land Transfers

	Israel	West Bank	Gaza	Refugees	Total
Population	5,938,083	2,090,713	1,178,119	1,000,000	10,206,925
Land Area sq km	20,770	6,540	360		27,670
Persons per sq km	286	320	3193		370

Table 2

Population Densities after Land Transfers

	Israel	West Bank	Gaza	Palestine	Total
Population	5,938,083	2,090,713	2,178,119	4,268,832	10,206,925
Land Area sq km	16,770	6,540	4,360	10,900	27,670
Persons per sq km	354	320	490	392	370

Note that after the transfer, the population densities of Israel and Palestine are comparable.¹³ Since there are less than 10,000 Israelis in the area that would be transferred, the transfer would have very little impact on the Israeli economy or land use. Further, the borders of Gaza could be configured so as to minimize proximity to Israeli population centers. The additional area is sparsely inhabited and was part of the land that was allocated to Palestinians in the original partition in 1948.

There may be a psychological barrier to this arrangement in that the land being transferred to the Palestinians is a barren desert. However, as it has been demonstrated in California and other parts of the Southwestern United States, given water and the

¹³ The population densities would be exactly equal if 4,637 square kilometers were transferred.

necessary investment in infrastructure, the desert can be transformed in to very attractive real estate. An example is Palo Alto and the Stanford University campus.



The area of the augmented Gaza would be easy to isolate from the Israeli population, so security is feasible at a relatively low cost. A land corridor between the West Bank and Gaza is probably the least expensive way of connecting the two regions. This corridor could include an underground segment so as not to divide Israel. This would reduce the possibility of incidents at checkpoints and eliminate one possible source of conflict between the two parties.

There was some discussion at the talks at Taba about augmenting Gaza to accommodate the refugees. The amount of land in question was on the order of 200 square kilometers in return for concessions along the Green Line. This is much less than the 4000 square kilometers in this proposal.

Paradoxically, it is in the interest of Israel to transfer the larger amount of land. First, to do so results in an allocation of land and water between Israelis and Palestinians that is essentially equal. The responsibility for the development of institutions and infrastructure in Palestine is thus placed on the Palestinians, the European Union and the United States. Second, reducing the population density of Gaza increases security. It is much easier to prevent disorder and terrorist activity if the population is in low-density housing. Finally, developing the infrastructure in Gaza will be a substantial endeavor. In the short run, construction will provide much-needed employment and it will provide an environment for the development of a Palestinian managerial class. In the long run a viable economy in Gaza is more likely if land is not scarce.

Institutions

The Negev desert with the addition of a water supply has the physical attributes of Southern California. To achieve the same economic viability requires that institutions exist to enforce personal and property rights. This requires a legal system that defines those rights and a government that has at its command the necessary force to protect them.

The Palestinian State can be associated with the European Union as an independent country with a special relationship that confers certain privileges and responsibilities. This relationship can be used to create a legal system to protect personal and property rights. Access to European markets together with the appropriate guarantees and subsidies could be used to encourage investment in Gaza.

The purpose is to create a legal system that would protect civil liberties in a manner consistent with the rights of the inhabitants of the European Union. One possibility is a system of common law that respects local institutions similar to that which exists in Pakistan. In addition contractual choice of law and jurisdiction should be recognized in commercial contracts except in contracts of adhesion or other instances where to do so is clearly inequitable. Common law has the advantage that it is pragmatic and evolves as necessary. Thus, it would be easier to implement than would civil law in an environment where there is no history to use in writing a civil code.¹⁴

¹⁴ See Posner pp. 519 to 548.

Mexico may provide some lessons for the development of the Palestinian economy, as there are some parallels between what happened in Mexico after NAFTA and what could happen in Palestine. Mexico went through two phases in the recent opening of its economy to foreign capital. In the first phase it allowed the opening of industrial parks along the border with the United States that permitted assembly and fabrication under customs bond. This is what is known as the *maquiladora* program. This program was initially very successful, but lately it has been losing jobs to competition from China.¹⁵ The second phase was opening the economy to foreign capital after NAFTA. This has resulted in the building of plants in Mexico by international corporations. A well-known example is the Volkswagen plant in Puebla. Such plants have been successful in a large part because Mexicans run them. If you visit a foreign-owned firm in Mexico, Mexicans hold most jobs although some firms still reserve the very top jobs for their nationals.¹⁶ Thus, the existence of a well-trained professional and managerial class was very important because it allowed the entry of foreign capital into Mexico without “colonizing” the economy. Capital and technology lose their national identity if the managers are not foreign.¹⁷

¹⁵ This was expected. In 1989, Hermino Blanco, who was one of the negotiators of NAFTA, told me that he believed that the *maquiladora* program was a temporary solution as Mexico would not be able to compete with China on labor costs in the long run.

¹⁶ It has been reported to me that one of the reasons Mexicans may have some difficulty in being promoted to the top jobs is that they are not willing to accept assignments abroad. Since such assignments are part of the promotion process for many multinational companies, this may limit the careers of some Mexicans. However, NAFTA has been in place for only about ten years and it will take some time for cultural adjustment.

¹⁷ There has been criticism that there has not been much technological transfer to Mexico post-NAFTA. (See for example Tina Rosenberg, *New York Time Magazine*, August 18, 2002, p.32.) The argument is made that NAFTA has not resulted in the formation of Mexican companies. This is true, but it also applies to companies in the United States. I doubt that many people in Houston care that Shell is an Anglo-Dutch company.

The key to this development was the establishment of two technical schools in Mexico. These are Instituto Tecnológico de Monterrey (Monterrey Tec) and Instituto Tecnológico Autónomo de México (ITAM). Both schools consider themselves the MIT of Mexico. Since these were technical schools, they were isolated in the most part from the political unrest of the sixties, which affected other Mexican universities. The students at the technical schools were given marketable skills and the most promising graduates were sent to graduate and business schools abroad. They were the cadres that permitted industrialization based on foreign capital. Universities and schools are necessary for developing an industrial economy that is more than another form of neo-colonialism.

There are two lessons to be drawn from the Mexican experience. First, it is probably too late to try to use industrial parks as an instrument for development in Palestine. Palestine cannot compete with China as a source of low wage labor. Industrial development in Palestine will have to be similar to the post-NAFTA phase of Mexican development. This will require the creation of an educational system to support such development.

Two technical universities can be started in Palestine. The first would be an elite institution to train engineers and scientists. These are the students who would be expected to go abroad for graduate degrees. The second would be a technical university on the level of American land grant colleges. The goal would be to train competent engineers and middle managers.

The Middle East is in need of strong technical schools. Thus, a strong educational system in Gaza would serve two purposes. First, it could be an important part of the service economy as students for the Arab world could study in Palestine if the universities were

“world class.” Second, a strong educational system would be an important factor in establishing a Palestinian identity.¹⁸ It will be important for Palestinians to believe that they can compete in the modern world as managers, educators and scientists and not feel that they are just a source of cheap labor for the industrialized countries.

Conclusions

This is a proposal to: first, expand the area of the Gaza in a land swap arrangement from the current 360 square kilometers to approximately 4000 square kilometers by adding part of the Negev desert that is currently essentially uninhabited and second, to grant the Palestinians rights to 500 million cubic meters of additional water. This gives the Israelis and Palestinians an equal allocation of the non-agricultural water and comparable population densities. This is not an optimal allocation of water and it should be possible to negotiate a less expensive solution. However, it is a starting point for the negotiations and even if the initial non-optimal allocation is implemented, the cost is not large.

This makes it possible to develop an industrial and service economy in Gaza that makes it possible for Palestinians who are currently refugees to return to a Palestinian State. The responsibility for the development of the necessary institutions is placed on the Palestinians, although this task will require the institutional and economic support of the European Union and the United States.

¹⁸ Professor Neal Lane does not believe it would be difficult to recruit faculty initially to staff the universities if conditions were safe and living facilities were adequate. He believes many professors would do it as public service. Continuing the parallel to Mexico, Mexican academics are strongly encouraged to publish their work in foreign-refereed journals. Informally, such publications are probably a necessary condition for tenure.

The economic solution is formulated in a manner so that there exists the possibility of peace. It is not the best possible plan, and it is not complete. It does not address many of the non-economic and symbolic issues such as access to Jerusalem and religious settlements on the West Bank. The hope is that if there is a solution that does not condemn the Palestinians to lives at the economic equivalent of Haitians and creates the possibility of a home for the Palestinian diaspora, then the other issues become easier to address.

This paper proposes concessions by Israel to the Palestinians. These concessions are not likely to be made without some reciprocal concessions on the part of the Palestinians.

The paper been deliberately ambiguous as to what form these concessions could take, as this is a question that does not involve economics per se. One can imagine that in exchange for the grant land of land in Gaza proposal suggested in this paper there could be recognition of the right of Israel to annex some of the territories captured in 1967 in order to give Israel secure and defensible borders.

References

- Atwan, Nawal, et. al. "Allocations of Water and Responsibilities in an Israeli-Palestinian Water Accord" WWS 401c. 1999.
- Fisher, Franklin M. "Water: Casus Belli or Source of Cooperation," working paper. Middle East Water Project, 2001.
- Fisher, Franklin M., et al "Optimal Water Management and Conflict Resolution: the Middle East Water Project," working paper. Middle East Water Project, 2000.
- Katz, Freidrich, *The Life and Times of Pancho Villa*, Stanford University Press, 1998.
- Keynes, John Maynard, *The Economic consequences of the Peace*, New York, Harcourt, Brace and Howe, 1920.
- Libiszewski, Stephan, *The Economies of Gaza, Israel and the West Bank*. 1996.
- Libiszewski, Stephan, *Water Disputes in the Jordan Basin Region and their Role in the Resolution of the Arab-Israeli Conflict*. ENCOP Occasional Paper No. 13. Center for Security Policy and Conflict Research/ Swiss Peace Foundation. Zurich/ Berne, August 1995. Internet version, <http://www.fsk.ethz.ch/encop/13/en13.htm>.
- Posner, Richard A., *Economic Analysis of Law*, Boston, Little Brown and Company, 1992.
- Rosenberg, Tina, "The Free-Trade Fix," *New York Times Magazine*, August 18, 2002.
- Smith, Adam, *The Wealth of Nations*, ed. Edwin Canaan, New York, Modern Library, 1994.