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A COMPARATIVE ANALYSIS OF THE ISRAELI AND ARAB WATER LAW TRADITIONS AND INSIGHTS FOR MODERN WATER SHARING AGREEMENTS

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INTRODUCTION

Rules of water use among early Jewish tribes date back as far as 3000 B.C.E. when Semetic groups settled at Ur in Mesopotamia.¹ Water,² a natural resource critical to all life and to human, social, economic, and industrial development, is scarce in the arid Middle East. The main sources of freshwater in this region include the Jordan and Yarmouk Rivers, and a number of underground aquifers, all of which have had to be shared by various communities with different religious, cultural and, in modern times, national identities. Yet, as stated by scholar Leif Ohlsson, "A river does not know any boundaries,"³ and a river or other water source that flows through public or private property or crosses Israeli, Jordanian, Syrian, Lebanese or Egyptian borders must somehow be shared by all users.

Modern water law in Israel,⁴ specifically, and in the Middle East, generally, addresses competing interest among users and usage, and more recently, among nations. It is the result of centuries of local customs and multiple political, religious and historical influences, includ-

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1. See Dr. M. Virshubski, Israel (Israel), UNITED NATIONS FOOD AND AGRICULTURE ORGANIZATION, SURVEY OF WATER LAW IN SELECTED EUROPEAN COUNTRIES at 87, U.N. Doc. / / (1974) [hereinafter Virshubski, Israel, Israel].

2. The term "water" will refer to freshwater, not sea water, including water from naturally occurring sources such as lakes, rivers and streams, as well as man-made conduits, including wells and reservoirs.

3. Leif Ohlsson, *Water—An Elusive and Ultimate Constraint for Development*, reprinted in REGIONAL CASE STUDIES OF WATER CONFLICTS 1, 5 (Leif Olson ed., 1992).

4. Modern Israel or the State of Israel will refer to all land over which the government of the State of Israel exerts political control, including, at the present time, the Golan Heights, West Bank and Gaza Strip. "Israel" refers generally to the geographic area first settled during the Jewish Royal Period, 1020-586 B.C.E.

ing the ancient Jewish and Islamic religious and social laws, the laws of the Greco-Roman Empires, the Ottoman Empire and colonial Mandatory rule, and most recently, international principles of apportionment. Even where the Roman, and later the British empires ruled over the region, water law remained closer to the traditional Jewish and Islamic doctrines—most notably honoring a communal approach to water use, and close community or state control over water resources—than to the laws of the conquerors.⁵

This article examines the evolution of water law in Israel, and compares it to the development of Arab water law. First, it presents a discussion on water law of the ancient religious systems: Jewish law of the Talmud,⁶ and Islamic law of the Holy Koran.⁷ Next, it reviews water regulation under Ottoman rule when the Mejele Code, a unified legal system, was enforced over the entire Middle East region. The article proceeds with a discussion of the impact on Israeli and Arab water law under British Mandatory rule. Finally, it examines the develop-

5. See generally DANTE A. CAPONERA, PRINCIPLES OF WATER LAW AND ADMINISTRATION (1992) [hereinafter CAPONERA, PRINCIPLES]; Dante A. CAPONERA, *Water Laws in Moslem Countries, United Nations Food and Agriculture Organization Development Paper* No. 43, March 1954 [hereinafter *Moslem Water Laws*]; A.M. Hirsch, *Water Legislation in the Middle East*, 8 AM. J. COMP. L. 168 (1959) [hereinafter Hirsch, *Water Legislation*].

Three major water rights systems may be identified throughout history: the riparian rights doctrine, prior appropriation, and a shared community or administrative control approach. See L. TECLAFF, WATER LAW IN HISTORICAL PERSPECTIVE 6 (1985) [hereinafter TECLAFF, HISTORICAL PERSPECTIVE].

Israel water law has never recognized riparian rights doctrine, characteristic of the Roman and then the British systems, as well as followed in a modified form in the eastern states of the United States, which provides that water rights stem from land ownership or occupation. The owner or occupier of land has the right to use water flowing on or abutting his land without need for licensing or other form of consent from the community or other authority. The allowable use extends to all domestic purposes without regard to the effect on other riparians. Beyond this, use for irrigation or industrial purposes is limited so far as it must not impair the quantity of water flow (the water level), or the quality of the water (including pollution, siltration and salinization), to the other riparians. See CAPONERA, PRINCIPLES, *supra*, at 82. Israel water law also has never recognized prior appropriation water rights principles, which observe a first in time theory of property rights. According to prior appropriation doctrine, one who arrives first, and makes beneficial use of a water source, acquires a superior right to use against all subsequent potential uses. See TECLAFF, HISTORICAL PERSPECTIVE, *supra* at 22. The right is retained so long as the original use, or uses, continue. *Id.* Prior appropriation is prevalent in the western United States of America. In 1872, California codified the procedure by which water could be appropriated. *Id.* at 20.

6. The Talmud was written and compiled during the 6th through 3rd centuries B.C.E. in Palestine and Babylonia. See Hirsch, *Water Legislation*, *supra* note 5, at 170. The Talmud generally refers to the body of oral Jewish Law including commentaries and scholarly discussions. E.N. DORFF, JEWISH LAW AND MODERN IDEOLOGY 149 (1970).

7. The Koran is believed by the Moslem people to be the embodiment of divine law. N. Ellison, *A Symposium on Muslim Law*, 22 GEO. WASH. L. REV 1, 1 (1953).

ment of national water systems in the modern State of Israel and, as a means of comparison with a modern Moslem nation, the Hashemite Kingdom of Jordan.⁸

As an initial note, the historical legal systems⁹ discussed in this article exert no legal authority either in the modern State of Israel or the modern Kingdom of Jordan. As part of the historical tradition of these nations, they remain relevant to law and custom at the local level, as well as to the legal and cultural perspective of the modern inhabitants. Finally, this author argues that water law development in Israel, and in the Arab countries bordering Israel, share a common historical theme. The legal and cultural perspectives of water ownership, use and regulation common to Israel and its neighbors, and distinctive to this region, may and should contribute in a positive and productive way to discussions on the present conflicts concerning the equitable division and sharing of water among the Middle East nations.

THE ANCIENT WATER LAW REGIMES

Certain fundamental similarities exist between the water rights and duties described in the religious law of both Judaism and Islam. Principally, both communities conceive of water as a gift of God's creation, belonging to all members of the community.¹⁰ Access to water, at least for the purpose of human sustenance, is considered to be a right of all persons, within and without the community, and whether on private or publicly held property.¹¹

*Jewish Water Law*¹²

Jewish religious and civil law is documented and commented upon in the Talmud, including rules on water rights and priorities¹³ of usage. Jewish water law flourished from approximately 930 B.C.E. through 332 B.C.E, the beginning of the Greco-Roman Empires.¹⁴ During this period,¹⁵ the first centralized municipal water supply management sys-

8. Jordan borders Israel along Israel's eastern border.

9. These include the laws of the Talmud, the Koran, the Mejlle Code of the Ottoman Empire, and Mandatory Rule. See discussion *infra* Parts I and II.

10. See generally CAPONERA, PRINCIPLES, *supra* note 5; Hirsch, *Water Legislation*, *supra* note 5; and *Moslem Water Laws*, *supra* note 5.

11. See generally CAPONERA, PRINCIPLES, *supra* note 5; Hirsch, *Water Legislation*, *supra* note 5; and *Moslem Water Laws*, *supra* note 5.

12. Jewish water law here refers to the laws set out principally in the Talmud, as distinct from water law in the modern state of Israel.

13. The relative rights of a non-community member to water to sustain himself. See Hirsch, *Water Legislation*, *supra* note 5, at 186.

14. See Virshubski, *supra* note 1, at 87.

15. Around 930 B.C.E., the Nation of Israel split into the Kingdom of Israel in the

tem was instituted.¹⁶ Jewish law and legal principles, to the extent that they did not conflict with the laws of their conquerors, continued to be followed¹⁷ during the Greco-Roman,¹⁸ and successive conquests, until the institution of the Mejlle Code under the Ottoman Empire.¹⁹

The fundamental Talmudic water law established that water was the common right of all people: "Rivers and Streams forming springs, these belong to every man."²⁰ Thus, all naturally occurring bodies of water, whether located on or adjoining private property, or whether flowing from one village to another, were the right of all—not just of the private property owner or of the community members. This scheme permitted no legal interest to exclude another from water use, although it recognized a system of priorities of use.²¹

Jewish law established a descending order of priority for certain types of water usage, and for villagers versus non-community members, or outsiders. At the top of the hierarchy was the "Right of Thirst"²² – no person could be denied the right to quench his thirst, regardless of whether he was a member of the community or whether the water was on public or private land.²³ Use by outsiders could be restricted, however, until the needs critical to the life of community members were satisfied.²⁴ Thus, villagers' drinking use attained priority over outsiders' satisfying their thirst, and then villagers' irrigation and livestock needs came before community outsiders' watering their animals: "A spring owned by the people of the city: their lives and the lives of others – their lives take precedence over those of others; their beasts and the beasts of others – their beasts take precedence over the beasts of others. . . ."²⁵

Lower on the water use hierarchy, the community's non-life sustaining, casual water use had priority over outsiders' casual use, but

north, and Juda in the South. The first destruction of the Temple of Solomon occurred in 586 B.C.E. and the Persian conquest in 538 B.C.E, followed by the Edict of Cyrus, the return of the Jewish people to Jerusalem, and the rebuilding of the Temple. *See id.*

16. *Id.*

17. *Id.*

18. The Greek conquest occurred around 332 B.C.E. and the Roman conquest in 63 B.C.E. *Id.*

19. Jerusalem was conquered in 638 C.E. *Id.*

20. CAPONERA, PRINCIPLES, *supra* note 5, at 22; *see also* Hirsch, *Water Legislation*, *supra* note 5, at 173.

21. *See* Hirsch, *Water Legislation*, *supra* note 5, at 172-186.

22. *Id.* at 186.

23. *Id.*

24. *Id.*

25. *See* Hirsch, *Water Legislation*, *supra* note 5, at 172 (quoting Talmud Bavli, Nedarim, 80b).

was subjugated to outsiders' life-sustaining needs. Thus, the community's laundering needs would be satisfied before those of outsiders, but an outsider could drink or water his animals before the community could use water for laundering: "[T]heir laundering and the laundering of others – their laundering takes precedence over the laundering of others; the lives of others and their laundering – the lives of others takes precedence over their laundering."²⁶

Similarly, riparian landowners retained no right to exclude others from the reasonable use of the water of rivers and streams flowing through their property or wells located on their property,²⁷ although, the owner of the land did maintain a right of compensation for access across his land, and for use of the water: "And the children of Israel said unto Him, 'We will go by the highway and if I and my cattle drink of thy water, then I will pay for it only, without doing anything else, go through on my feet.'"²⁸

Among several landowners upon whose property a natural source of water flowed, priority of right to use the water varied according to locality.²⁹ Thus, in Palestine, the upper riparian landowner had priority over lower riparians,³⁰ and the landowner whose land was located nearest to a well had prior rights to the other riparians.³¹ In Babylon, priority was determined principally on the basis of who could most easily make use of the water source.³²

The owner of private property likewise had a legal property interest in any man-made water conduits or holding devices. The landowner had a right to restrict, but not to exclude, the use of wells, springs, or underground water sources. The owner of the land which was located closest to an underground source feeding a well had priority of use over all others.³³ He also had the responsibility for maintaining the well, but all riparian landowners using the well had a duty to assist him.³⁴

Thus, under Talmudic law, water use could be regulated by the community, or the private landowner, upon whose property water flowed or springs formed. A system of priorities was established, but in

26. *Id.* See also CAPONERA, PRINCIPLES, *supra* note 5, at 25.

27. See CAPONERA, PRINCIPLES, *supra* note 5, at 22.

28. Numbers 20:19 cited in CAPONERA, PRINCIPLES, *supra* note 5, at 22.

29. See CAPONERA, PRINCIPLES, *supra* note 5, at 22; see also Hirsch, *Water Legislation*, *supra* note 5.

30. See TECLAFF, HISTORICAL PERSPECTIVE, *supra* note 5, at 56; see also E. KALLY, WATER AND PEACE 23 (1993).

31. See Hirsch, *Water Legislation*, *supra* note 5, at 171.

32. See CAPONERA, PRINCIPLES, *supra* note 5, at 22; see also A. HIRSCH, INTERNATIONAL RIVERS IN THE MIDDLE EAST 153 (1957) [hereinafter HIRSCH, INTERNATIONAL RIVERS].

33. See Hirsch, *Water Legislation*, *supra* note 5, at 171.

34. See HIRSCH, INTERNATIONAL RIVERS, *supra* note 32 (citing Talmud Balvi).

no case did the property interest give the community or the landowner a complete right to exclude. Water use for human sustenance was available to all people from all sources. This perspective of water as a communal resource is mirrored in Islamic religious law³⁵ and later, in modified form, in Arab and Ottoman civil law.

Traditional Islamic Water Law

The Koran conceived of water as a gift from God,³⁶ and commentaries to the Koran, similar to Jewish Talmudic law, established a right of all men to use water, including a right to drink, to water one's animals, and a right to irrigate one's land, within a system establishing certain priorities of usage and user.³⁷

Sharing water was considered a holy duty. Like Talmudic law, both Sunni and Shi'ite³⁸ law recognize a Right of Thirst, and denying water was considered to be an offense against God: "Anyone who gives water to a living creature will be rewarded. . . . To the man who refuses his surplus water, Allah will say: 'Today I refuse thee my favo[r], just as thou refused the surplus of something that thou hadst not made thyself.'"³⁹ Like Jewish law, Islam law held that all natural sources of water, including lakes and streams, belonged to all people.⁴⁰ Top priority was given to water for drinking purposes, then for domestic purposes, including watering one's animals, and then for other uses. Upper riparians and upstream users had priority over lower riparians and downstream users.⁴¹

While Jewish law allowed compensation for use of water located on private property, Islamic law prohibited any transaction that resembled the selling or buying of water.⁴² This prohibition apparently applied only to natural water sources. Ownership rights to artificial ground water sources were granted under Islamic law. Sunni doctrine allowed for one who dug a well or constructed a conduit through which water could flow, whether on his own property or on unoccupied land, to have an ownership interest in the water, an exclusive right for irrigation

35. See CAPONERA, PRINCIPLES, *supra* note 5, at 70.

36. See the Holy Koran 21:30, *cited in* CAPONERA, PRINCIPLES, *supra* note 5, at 70.

37. See CAPONERA, PRINCIPLES, *supra* note 5, at 70.

38. Sunnis follow an orthodox interpretation of Islam while Shi'ites are sectarian. See Hirsch, *Water Legislation*, *supra* note 5, at 173.

39. See *Moslem Water Laws*, *supra* note 5, at 15-16.

40. See *id.* at 70.

41. See Hirsch, *Water Legislation*, *supra* note 5, at 174.

42. "It would seem that the Prophet Mohammed declared that water . . . should be the common entitlement of all Moslems and to prevent any attempt to appropriate water he prohibited the selling of it." Hirsch, *Water Legislation*, *supra* note 5, at 173 (citing *Moslem Water Laws*, *supra* note 5, at 17).

purposes.⁴³

Still, surplus water was to be made available to the community for public use. Shi'ite doctrine awarded an exclusive irrigation right to the landowner with no public right to surplus.⁴⁴ In no case however, under Sunni or Shi'ite law, did an owner of an artificial water source have the right to deny a living being water to quench his thirst.

WATER LAW UNDER OTTOMAN RULE AND THE MEJELLE CODE

Ottoman Rule, 1300 C.E. – 1922, imposed a highly centralized and powerful political system on a formerly decentralized and localized region. Jewish communities, as non-Muslim minorities within the Ottoman Empire, maintained a certain degree of autonomy as regards religious law and internal affairs, but were not permitted to hold any public office,⁴⁵ including the position of water officer.⁴⁶ The early code of the Ottoman Empire integrated Moslem religious law with decrees and ordinances issued by the Turkish Sultans.⁴⁷ A first series of legal reforms took place in 1839.⁴⁸ The second period of reform resulted in the Mejele Code, drafted between 1870 and 1876.⁴⁹

The Mejele Code, while it adapted and secularized the law in three significant ways, retained earlier principles of traditional Islamic water law.⁵⁰ First, the communal right of all persons to water, fundamental to the ancient legal systems, was codified, albeit in modified form: "Water, grass and fire are free to be used by all. In these three things mankind are partners."⁵¹ The strong and centralized leadership of the Ottoman empire defined the sovereign as the living embodiment of the community; therefore, community ownership was one and the same as ownership by the sovereign. The sovereign retained all rights to all water sources, and private rights were acquired only by grant from the government. All water resources, even water on private property and from man-made wells, was subject to government regulation and control.

The Mejele Code, like the Talmudic and Koranic laws, maintained

43. See CAPONERA, *PRINCIPLES*, *supra* note 5, at 74.

44. See Hirsch, *Water Legislation*, *supra* note 5, at 174.

45. See ARYEH SHMUELEVITZ, *THE JEWS OF THE OTTOMAN EMPIRE IN THE FIFTEENTH AND THE SIXTEENTH CENTURIES* 16 (1984).

46. See Hirsch, *Water Legislation*, *supra* note 5, at 173.

47. See CAPONERA, *PRINCIPLES*, *supra* note 5, at 36.

48. *Id.*

49. *Id.*

50. "The Mejele was not intended to supersede the early authorities." *Jassonides v. Kyprioti*, 7 CYPRUS L. REV. 83, *quoted in* Herbert J. Liebesny, *Impact of Western Law in the Countries of the Near East*, 22 GEO. WASH. L. REV. 127, 131 (1953).

51. THE MEJELLE ch. IV, § 1, art. 1234, at 202 (C.R. Tyser et al. trans., Law Publishing Co. 1967).

that all members of the community had the right of access, in instances of private necessity, to use water on private property for personal and domestic use.⁵² During times of public necessity, all sources of water, including privately-owned water sources, were taken for public use.⁵³ Like ancient Islamic law, the Mejele Code prohibited the sale of water by private individuals.⁵⁴ Water rights were awarded by the state by a Water Commission and registered in a Land Registry.⁵⁵

Second, a concept of reasonable use emerged. While all members of the community had equal right to use the water of rivers and lakes, an individual user was not permitted to impair the rights of others to use the water, or to affect the quantity or quality of the water.⁵⁶ The Water Commission had the authority to determine reasonable use among competing claims.⁵⁷

Third, although with some modifications, the hierarchy of priority fundamentally remained much the same as under the ancient systems. Water for drinking and for watering one's animals had first priority.⁵⁸ Article 1268, however, permitted a private landowner to exclude persons from obtaining drinking water from a natural stream or well located on private property, except if no other public water sources were available.⁵⁹ Like Talmudic law, the person entering private property was responsible for any damage caused to the property, or to the well or water conduit.⁶⁰

Irrigation was an important part of the Ottoman Empire development, expansion and wealth, and the Mejele Code treated irrigation rights and priorities of use comprehensively. Priority was determined generally on the basis of one's physical proximity to the water source. Whomever was located nearest to the water source had the right to take first.⁶¹ As between two persons in equally close proximity to a water source, the first to arrive had priority.⁶² Finally, landowners on higher ground had priority over users on lower ground, with no reasonable use restriction protecting the downstream landowners.⁶³

The Mejele Code had a lasting influence on water law in Israel and

52. See CAPONERA, PRINCIPLES, *supra* note 5, at 72.

53. See Hirsch, *Water Legislation*, *supra* note 5, at 175.

54. Article 1234 of the Mejele Code, *cited in Moslem Water Laws*, *supra* note 5, at 37.

55. *Id.*

56. See CAPONERA, PRINCIPLES, *supra* note 5, at 72.

57. *Id.*

58. See *Moslem Water Laws*, *supra* note 5, at 38.

59. MEJELLE CODE art. 1268, *cited in Moslem Water Laws*, *supra* note 5, at 38.

60. *Id.*

61. See CAPONERA, PRINCIPLES, *supra* note 5, at 73.

62. *Id.* Thus, an element common to the later prior appropriation doctrine existed, but only as a qualification of the physical proximity principle.

63. See CAPONERA, PRINCIPLES, *supra* note 5, at 73.

throughout the Middle East region long after the fall of the Ottoman Empire. Under the British Mandate, the Mejlle Code, in part, remained on the books. The Code continued to influence local concepts of water rights and duties throughout the Mandate and into the modern era.⁶⁴ Most significantly, a theory of state ownership of water resources emerged which was to continue through the Mandatory period and become a legal cornerstone of the water code of the independent State of Israel.

BRITISH MANDATE WATER LAW IN ISRAEL

Under British Mandate,⁶⁵ a hodge-podge of rules consisting of sections of the Mejlle code and local customary law, took the place of a coherent national water law system.⁶⁶ Consequently, little distinguishes the period of British Mandate rule as far as water regulation or water development policy is concerned.

It was not until 1940, in response to the marked increase in Jewish settlement in Israel,⁶⁷ that the British Mandatory government made its first declaration of water policy and asserted the Crown's dominion over all sources of water within Israel, including water on, under, or abutting public or private lands.⁶⁸ Article 16E of the amended Palestine Order in Council provided that: "[T]he waters of all rivers, streams and springs and of all lakes and other natural collections of still water in Palestine shall be vested in the High Commissioner."⁶⁹

The High Commissioner was endowed with the power to pass laws "for the control . . . [and] beneficial and economic use of water. . . [and] supervision over . . . control . . . [and] exploitation of, the underground sources of water supply in Palestine."⁷⁰ Despite the dominion asserted over the area's water resources, no legislation was passed under Article 16E to give effect⁷¹ to the Order in Council; water regulation and devel-

64. See Hirsch, *Water Legislation*, *supra* note 5, at 179.

65. British Mandate was established in 1922 by Resolution of the League of Nations and lasted until Israeli independence on May 15, 1948. The British also exerted Mandatory Rule over Trans-Jordan until the establishment of the Hashemite Kingdom of Jordan in 1949. See DANTE A. CAPONERA, *WATER LAWS IN SELECTED EUROPEAN COUNTRIES* 88 (1975) [hereinafter *EUROPEAN WATER LAWS*].

66. "The law governing the use of water . . . is not only inadequate but also very confused." DOREEN WARRINER, *LAND AND POVERTY IN THE MIDDLE EAST* 73 (1948).

67. See KALLY, *supra* note 30, at 5.

68. Hirsch, *Water Legislation*, *supra* note 5, at 178 n.48 (citing Great Britain, Government of Palestine, December 4, 1940, in *A Survey of Palestine in Report of the Anglo-American Committee of Inquiry I*, 391, 1946).

69. *Id.*

70. *Id.*

71. The Article was never "gazetted." See Hirsch, *Water Legislation*, *supra* note 5, at 179 (citing HAIM HALPERIN, *WATER LAW IN ISRAEL* 13 (1956)).

opment was left largely to the local law and customary principles.⁷² The policy statement of Article 16E, however, was utilized by the successor government of the independent State of Israel.

WATER LEGISLATION IN THE MODERN PERIOD

The modern era of water law began after World War II with the establishment of the independent State of Israel in 1948 and the Hashemite Kingdom of Jordan in 1949. The newly independent countries of the Middle East then enacted national water codes and created national water regulatory bodies.

Water Law in the Modern State of Israel

Even prior to Israel's independence, May 15, 1948, regional water development plans were underway by Jewish settlers.⁷³ Upon establishment of the State of Israel, in 1948, the new government invoked the earlier King's Order in Council of 1940⁷⁴ to assert state ownership over all water resources and establish a national water distribution and development policy.⁷⁵ Like the water law of ancient times, which conceived of water as belonging to the entire community, modern law declares water to be a right of all people of Israel, and states that water resources belong to all members of the community at large.⁷⁶ In 1959, Israel's legislative body, the Knesset, enacted a nation-wide water management code and created a national water authority.⁷⁷ All water resources⁷⁸ are subject to the control of the state and to judicial supervision,⁷⁹ and the complex water management system determines distribution, planning and development at the national, regional, and local levels. This article reviews water management at the national level only.

At the national level, the Minister of Agriculture is in charge of water-related legislation, as well as the execution of water laws.⁸⁰ The Water Board is an advisory body to the Minister of Agriculture, and it is through the Board that the public participates in national water policy.

72. See Hirsch, *Water Legislation*, *supra* note 5, at 171.

73. Virshubski, *supra* note 1, at 88.

74. *Id.*

75. See Hirsch, *Water Legislation*, *supra* note 5, at 178.

76. THE WATER LAWS OF ISRAEL Stat. 288, § 4, at 1 (S. Aloni ed., 1970).

77. 1959 Water Law (No. 5719), 1959 *reprinted in* The Water Laws of Israel, *supra* note 76, at 1-60.

78. These include all above ground and underground currents or accumulations of water, and all natural and man-made accumulations, including even drainage and sewage water. ISRAEL STATUTE no. 288 *cited in* TECLAFF, HISTORICAL PERSPECTIVE, *supra* note 5, at 56-57.

79. See TECLAFF, HISTORICAL PERSPECTIVE, *supra* note 5, at 56.

80. See Virshubski, *supra* note 1, at 103.

The Board consists of thirty-nine members, of which two-thirds are representatives of the public, and one-third are government representatives, including one representative of the Jewish Agency.⁸¹ The Planning Commission, a body appointed by the Minister of Agriculture, designs large-scale water supply systems.⁸²

The Water Commission is a subdivision of the Ministry of Agriculture and executes the day-to-day decisions of water management. The Commission issues water use licenses, keeps records of water rights, oversees and enforces compliance with licensing terms, and collects data on water use and planning needs.

All private use of water, including use by a landowner of water located on his private property, requires approval by the state by means of a system of permits and licenses issued by the Water Commissioner.⁸³ Private ownership of water, whether naturally existing or man-made, is not recognized under Israeli law, and thus riparian landowners possess no rights superior to the general public to use or restrict access to water on, or touching, their land.⁸⁴ The right of an individual licensee to water use, duly recognized by the state, is a legally protected property interest which is enforceable against third parties.⁸⁵

The Water Commissioner has the discretion to cancel or modify licenses for reasons of public need, and to declare a rationing area.⁸⁶ The creation of a rationing area automatically reconverts all licensed use to state ownership, and subjects water use strict distribution rules. Decisions of the Water Commissioner on licensing, water use, distribution, and rationing are enforced by means of judiciary review and through the Tribunal for Water Affairs, established as the body of final appeal.⁸⁷ All decisions are documented in a public water register.⁸⁸

The Water Law of 1959 establishes a hierarchy of priorities of types of use. Like Talmudic law, at the top of the hierarchy is domestic use, principally, water for drinking purposes.⁸⁹ This is followed by agricultural use, and then industrial and other uses.⁹⁰ The Water Commissioner, in exercising his discretionary authority to issue water use li-

81. *Id.*

82. *Id.* at 104.

83. *Id.* at 90.

84. *Id.*

85. *Id.*

86. *Id.*

87. ISRAEL WATER LAW, §§ 141-47, *cited in* TECLAFF, HISTORICAL PERSPECTIVE, *supra* note 5, at 59.

88. *Id.* at § 148.

89. Domestic uses also include any ordinary uses within one's home, e.g., laundering. See TECLAFF, HISTORICAL PERSPECTIVE, *supra* note, at 57.

90. 1959 Water Law, sec. 24, *cited in* THE WATER LAWS OF ISRAEL, *supra* note 76; see also Virshubski, Israel, *supra* note 1, at 91.

censes, is required to consider the following criteria: existing licensed water rights, the abundance or scarcity of water in the region, the most beneficial use possible, and other needs of the particular locality that may be affected.⁹¹

Thus, the modern State of Israel maintains complete control over its water resources, and decides and enforces priorities of use over all water sources and supplies by means of a system of permits and regulations. State ownership is perceived as representative of the communal right to water, a legacy of the traditional Talmud and Ottoman influences.

Water Law in the Hashemite Kingdom of Jordan

Jordan followed the traditional law of the Koran until the 19th century when it was supplanted by the Mejlle Code. From 1922 through 1949, the British exerted Mandatory Rule over the area. During the past forty-eight years, a national civil code has replaced the Mejlle Code, and has integrated some of the principles of traditional and Ottoman Empire Moslem law.

All water resources in the modern Kingdom of Jordan are under state regulation by the Natural Resources Authority.⁹² The Natural Resources Authority is a non-representative governmental body whose president is the nation's Prime Minister, and whose Board of Directors consists of the heads of relevant Ministries including, among others, Agriculture, Interior and National Economy.⁹³ It is a planning, legislative, executive, administrative, and judicial body. The Natural Resources Authority issues, enforces, and reviews permits for water use.

Consistent with ancient Moslem law, naturally occurring bodies of water, including lakes, rivers and streams, are considered to belong to the community,⁹⁴ as does water to which no private right has been claimed and registered. Reservoirs and other man-made bodies of water, unless located on private property, are also considered community property.⁹⁵

A private landowner acquires ownership rights to water on his land as part of his land ownership, as long as the water has been registered along with registration of the land.⁹⁶ This property interest in the wa-

91. See Virshubski, *supra* note 1, at 110.

92. Law No. 12, 1968, of the Natural Resources Authority, art. 16, *cited in* G. Masina, Jordan, *in Moslem Water Laws*, *supra* note 5, at 99.

93. See Masina, *supra* note 94, at 109.

94. Law No. 40, 1952, on Settlement of Land and Water Rights, *cited in* Masina, *supra* note 94.

95. *Id.*

96. Law No. 12, 1968, of the Natural Resources Authority, art. 59, *cited in* Masina,

ter is directly linked to the property interest in the land and it cannot be severed or transferred separately from the land.⁹⁷

Permits, issued by the Natural Resources Authority, are required for all uses other than personal⁹⁸ and ordinary irrigation⁹⁹ use. No pre-established priority of water use exists. The Natural Resources Authority will consider the circumstances of the area and the competing beneficial uses, with a tendency to favor traditional priorities of use, including personal and agricultural, followed by industrial and other uses.¹⁰⁰

Thus, water regulation in Jordan is centralized, strictly regulated, and most closely resembles the law under Ottoman Empire rule. The sovereign controls all water resources on behalf of the community, and water on public lands is considered to belong to the community. Distinct from the traditional law of the Koran and the law of the Mejele Code, however, a private ownership right to naturally occurring water resources, not only to artificial ground water sources, is recognized as linked to, albeit still distinct from, private land ownership.

CONCLUSION

As seen from the above discussion, the ancient laws of the Talmud and the Koran, the laws of Ottoman and Mandatory Rule, and even the modern water regimes, contain certain fundamental similarities as regards water regulation, priorities of use and sharing. Certainly, the geographic and hydraulic conditions of the region, the exigency of water scarcity, and the existence of different religious and ethnic groups living side by side, necessitated an approach to water regulation that was not consistent with the laws that emerged from European conditions. Additionally, early water development in the Middles East was principally a local process,¹⁰¹ and therefore, more directly influenced by the customary or traditional principles of the local cultures, than by the centralized government control of the Greco-Roman, Ottoman or British periods. Thus, certain fundamental principles of water use and development remained constant from ancient to modern times and

supra note 94.

97. Law No. 40, 1952, on Settlement of Land and Water Rights, art. 8.5, *cited in* Masina, *supra* note 94.

98. This includes drinking, domestic, and household needs, not exceeding an official limit.

99. This constitutes use within the established limits of an Irrigation Area. *See* Masina, *supra* note 94, at 102.

100. *Id.* at 103-04.

101. *See* Hirsch, *Water Legislation*, *supra* note 5, at 169.

among ancient Jewish and Moslem traditions.

The Distinctive principles of water regulation that have flowed, so to speak, from one legal system to the next in this region include, most significantly, the concept of a community right to water – that water is a thing which is shared and not owned – a gift from God to all people. This principle is prevalent, as we have seen, in both the Jewish and Moslem ancient law systems. This community right to water was translated into state ownership of water resources from the time of the Ottoman Empire and continues to this day in the modern State of Israel. State control over water may have marked a formidable change in the ancient principle of community water rights, except that state ownership, as established, is the embodiment of the original communal right.¹⁰² Thus, the traditional view of water as a communal resource not only prevails, but establishes a fundamental common link between the modern Israeli and the modern Arab nations' views of water rights and water ownership.

In light of this fundamental, historical and enduring link between the Israeli and Arab views of water use and sharing, an argument can be made that transboundary water sharing negotiation between Israel and its Arab neighbors should also follow this communal approach on an expansively regional level.

Israel and Jordan have already made significant steps in the bilateral recognition of a shared responsibility, if not a shared right, to water and their natural resources. The 1994 Treaty of Peace,¹⁰³ signed by Israel and Jordan, directly addresses the allocation of transboundary water resources.¹⁰⁴ Article Six agrees to an equitable apportionment scheme as detailed in Annex II of the Treaty.¹⁰⁵ Annex II outlines the allocation of waters of the Yarmouk and Jordan Rivers, as well as water from other sources. Annex II also establishes a Joint Water Committee¹⁰⁶ as an implementing body of the program of action described in the

102. See THE MEJELLE ch. IV, § 1, art. 1234, *supra* note 51. British Mandatory Rule maintained this principle of water law and the modern State of Israel institutionalized this principle.

103. Treaty of Peace Between the State of Israel and the Hashemite Kingdom of Jordan, Oct. 26, 1994, Isr.-Jordan, 34 I.L.M. 743 (1995) [hereinafter Israel-Jordan Peace Treaty].

104. See *id.* at Annex II, art. VI.

105. Jordan concedes that Israel may pump an additional 20 MCM from the Yarmouk River during the winter period in return for Israel conceding to transfer 20 MCM to Jordan from the Jordan River during the summer period. See *id.* at Annex II, art. I, paras. 1b, 2a. Additionally, both countries agree to work together to find alternative water sources of drinking water for Jordan. See *id.* at Annex II, art. I, para. 3.

106. See *id.* at Annex II, art. VII, para. 1. The Committee is to be comprised of three members from each country, see *id.*, and cooperation is to be advanced by means of distinct sub-committees representing northern versus southern regions within each country. See *id.* at Annex II, art. VII, para. 3. The Committee's purpose is to oversee water allocation, see *id.* at

Annex. The parties agree to transfer information, to conduct joint research and development,¹⁰⁷ and to act together in alleviating water shortages, developing existing and new water resources,¹⁰⁸ and in preventing the contamination of shared water resources.¹⁰⁹

Additionally, the 1995 Agreement on Cooperation in Environmental Protection and Nature Conservation Between Israel and Jordan¹¹⁰ recognizes and addresses environmental concerns common to the two nations. Article I articulates the spirit of cooperation upon which the agreement is based:

The parties shall cooperate in the fields of environmental protection and conservation of natural resources on the basis of equality, reciprocity and mutual benefit. . . . They shall take the necessary measures, both jointly and individually, to protect the environment, and prevent environmental risks . . . in particular those that may affect or cause damage to . . . natural resources . . . in the region.¹¹¹

Article Five outlines various programs of cooperation including the exchange of information,¹¹² the sharing of scientific and scholarly data,¹¹³ and the promotion of joint scientific, technical research, and joint development projects.¹¹⁴ Notably, Article Ten provides for the establishment of a Joint Committee on Environmental Protection and Natural Resources Conservation to meet bimonthly, alternatively in Israel and Jordan.¹¹⁵ The Joint Committee will propose new projects, as well as monitor existing projects and the performance of both parties under this agreement.¹¹⁶

These agreements authorize a mutually agreeable allocation of water, and joint protection of natural resources, including water. They mark very significant, and highly visible, steps forward for two nations that have been in a longstanding state of military aggression over terri-

Annex II, art. VII, para 1, storage, *see id.* at Annex II, art. II, water quality protection, *see id.* at Annex II, art. III, as well as information transfers and data sharing. *See id.* at Annex II, art. VI, para. 1.

107. *See id.* art. VI, para. 4d.

108. *See id.* art. VI, para. 4a.

109. *See id.* art. VI, para. 4b.

110. Agreement on Cooperation in Environmental Protection and Nature Conservation Between Israel and Jordan, Sept. 7, 1995, Isr.-Jordan, (unpublished) [hereinafter Environmental Agreement].

111. *Id.* art. I, paras. 1, 2.

112. *See id.* art. V, para. 3.

113. *See id.* art. V, paras. 2, 3.

114. *See id.* art. V, para. 4.

115. *See id.* art. X.

116. *Id.*

tory and control of transboundary water sources.¹¹⁷ Another step forward along this positive course could be to view transboundary water sharing in a new light, and yet from a perspective as ancient as Judaism and Islam, and as historically well-established, drawing upon their common heritage of a communal view of water rights and water use. This perspective would open water sharing schemes to the regional rather than predominantly national level. As it has been stated, "[t]he only natural unit for river management is . . . the river basin in its entirety."¹¹⁸ Recognizing and utilizing this common historical heritage could contribute to advancing not only water apportionment negotiation, but also to creating a genuine and lasting peace in the Middle East.¹¹⁹

117. In 1964, for example, Syria and Jordan began the construction of a dam to divert the flow of the Yarmouk, Baniyas and Jordan Rivers. See Stephan McCaffrey, *Water, Politics and International Law*, in WATER IN CRISIS: A GUIDE TO THE WORLD'S FRESH WATER RESOURCES 25 (Peter H. Gleick, ed. 1993). The dam would have prevented Israel from carrying out its national water distribution plan. See MASAHIRO MURAKAMI, MANAGING WATER FOR PEACE IN THE MIDDLE EAST 296 (1995). Israel bombed and destroyed the dam before construction was complete, and in 1967 occupied the Golan Heights, the West Bank, and the Gaza Strip. See *id.* at 297. Through this occupation, Israel increased control from a mere 10 km tract of land along the Yarmouk to half the length of the river. See *id.*

118. Ohlsson, *supra* note 3, at 5.

119. See *id.* at 1; see generally Adam M. Garfinkle, War, Water and Negotiation in the Middle East: The Case of the Palestine-Syrian Border, 1916-23 (1994); see generally Kally, *supra* note 30; see generally M. Murakami, Managing Water for Peace in the Middle East (1995); see generally Joyce R. Starr & Daniel C. Stoll, The Politics of Scarcity: Water in the Middle East (1987); see generally War and Peace in the Middle East: Proceedings on the First Israeli-Palestinian International Academic Conference on Water (J. Isaac and H. Shuval, eds., 1994); see generally Joyce R. Starr & Daniel C. Stoll, *Water Wars*, 82 Foreign Pol'y. 17 (1991).