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THE FOOD-WATER NEXUS IN THE POST-REVOLUTIONARY MEXICAN SUPREME COURT

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THE FOOD-WATER NEXUS IN THE POST-REVOLUTIONARY MEXICAN SUPREME COURT

Chapter for *Research Handbook on International Food Law*

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ABSTRACT

Mexico's Constitution of 1917, following the 1910 Revolution, addressed the problem of pervasive rural drought and starvation by nationalizing water sources and distributing land to peasant communities in the form of *ejidos*, or collective farms. The *Suprema Corte de Justicia de la Nación* (Mexican Supreme Court) applied these provisions in analyzing cases on *ejido* water supply. This chapter assesses the extent to which the Court's decisions from the 1920s to the 1950s enforced agrarian reform and thus facilitated local food production. In addition, the project uses archival documents to discover the relationship between *ejidos*, government, and private landowners regarding water access in the northwestern state of Sinaloa. The Court and public officials largely implemented the agrarian goals of the Revolution, although market forces and international agreements gradually moved Mexico's rural food system towards a more export-oriented rather than subsistence economy. This trajectory shows that legal and other institutions were ultimately more responsive to the domestic and worldwide food law regimes than to doctrinal traditions.

INTRODUCTION

This chapter shows how water law became food law in twentieth-century Mexico. The 1910 Mexican Revolution and its Constitution of 1917 addressed recurrent nationwide drought and starvation by nationalizing water and distributing land to the rural peasantry in the form of *ejidos*, or collective farms. The post-revolutionary process of water allocation has been analyzed by historians of Mexico on national and regional levels, but little research has investigated its legal aspects, including the role of the courts.¹

¹ For national studies, see, e.g., LUIS ABOITES AGUILAR, *EL AGUA DE LA NACIÓN: UNA HISTORIA POLÍTICA DE MÉXICO 1888-1946* (1997); Gustavo Armando Ortiz Rendón, *Evolución y perspectivas del marco jurídico del agua en México: nuevos retos y oportunidades para la gestión integrada del recurso hídrico*, in *AGUA: ASPECTOS*

The project expands this author's previous study of post-revolutionary water decisions by the Mexican Supreme Court (the *Suprema Corte de Justicia de la Nación*, or SCJN) by focusing specifically on cases involving *ejido* water supply in the key years 1925-54, when agrarian reform was being implemented.² It also examines archival sources on local water dispute resolution in an important state, Sinaloa. These analyses demonstrate that the Supreme Court facilitated government water allocation to craft Mexico's food production landscape. In a broader sense, the research addresses the legal-historical question of the extent to which courts respond to their external context or autonomously follow traditional doctrine.³

THE HISTORICAL RELATIONSHIP BETWEEN WATER ACCESS AND FOOD PRODUCTION

Agricultural societies commonly recognize the connection between a reliable water supply and the ability to produce sufficient food.⁴ Ancient Roman agricultural law prescribed different amounts of irrigation for different crops, and established the principle of equitable

CONSTITUCIONALES 17 (Emilio Rabasa & Carol B. García eds., 2011); ALEJANDRO TORTOLERO VILLASEÑOR, *EL AGUA Y SU HISTORIA: MÉXICO Y SUS DESAFÍOS HACIA EL SIGLO XXI* (2000); MIKAEL D. WOLFE, *WATERING THE REVOLUTION: AN ENVIRONMENTAL AND TECHNOLOGICAL HISTORY OF AGRARIAN REFORM IN MEXICO* (2017). For regional research, see, e.g., *AGUA E HISTORIA: EXPERIENCIAS REGIONALES, SIGLOS XIX Y XX* (María Concepción Martínez Omaña & Lourdes Romero Navarrete eds., 2015); *AGUA Y TIERRA EN MÉXICO, SIGLOS XIX Y XX* (2 VOLS.) (Antonio Escobar Ohmstede, et. al, eds., 2008); ROCÍO CASTAÑEDA GONZÁLEZ, *IRRIGACIÓN Y REFORMA AGRARIA: LAS COMUNIDADES DE RIEGO EN DEL VALLE DE SANTA ROSALÍA, CHIHUAHUA, 1920-1945* (1995); LOURDES ROMERO NAVARRETE, *EL RÍO NAZAS Y LOS DERECHOS DE AGUA EN MÉXICO: CONFLICTO Y NEGOCIACIÓN EN TORNO A LA DEMOCRACIA, 1878-1939* (2007).

² Peter L. Reich, *El derecho al agua en la Suprema Corte de Justicia de la Nación durante la época posrevolucionaria: 1918-1946*, in *ESTUDIOS SOBRE LA SUPREMA CORTE DE JUSTICIA REALIZADOS EN ESTADOS UNIDOS* 119 (William J. Suárez-Potts, et. al eds., 2017).

³ Compare, e.g., MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW, 1780-1960* (1977) (nineteenth-century U.S. courts adjusted legal rules to facilitate contemporary economic growth) with ALAN WATSON, *THE EVOLUTION OF WESTERN PRIVATE LAW* (2001) (law not shaped by societal needs but evolves from legal tradition). Mexican legal historiography contains elements of both approaches. See generally, Peter L. Reich, *Recent Research on the Legal History of Modern Mexico*, 23 *MEXICAN STUDIES/ESTUDIOS MEXICANOS* 181 (2007); see, e.g., LINDA ARNOLD, *POLÍTICA Y JUSTICIA: LA SUPREMA CORTE MEXICANA (1824-1855)* (1996).

⁴ Recent analyses stress the critical importance of water security to sustainable agriculture. See WORLD ECONOMIC FORUM, *WATER SECURITY: THE WATER-FOOD-ENERGY-CLIMATE NEXUS* 17-43 (Dominic Waughray ed., 2011). For a statistical overview of the contemporary links between water, food, and economic development in Latin America, see *WATER FOR FOOD SECURITY AND WELL-BEING IN LATIN AMERICA AND THE CARIBBEAN* 177-212 (Bárbara A. Wilaarts, et al, eds., 2014).

division among farmers having access to a common source.⁵ Irrigators' water rights were expressed in temporal terms (seasons and days); for example, the lease of a meadow was coordinated with periods when pear trees bloomed and neighbors were flooding their land.⁶ These traditions continued into medieval Europe, with technologies such as the watermill for flour production sparking conflicts over use or dues, which sometimes accelerated into peasant rebellions against landlords.⁷ Time-regulated irrigation in this era has been studied in Spain, where priority was assigned based on crops' economic importance: During droughts cereals and vegetables received water before grapevines.⁸

Schooled by this background the Spanish recognized the sensitivity of the food-water nexus to particular times and places but, when colonizing Mexico, often imposed their own water-delivery methods with deleterious environmental effects. At the time of the sixteenth-century conquest, The Aztecs grew crops in *chinampas*, beds on artificial lake islands—a highly productive technique.⁹ The Spanish introduction of domestic grazing animals (the “plague of sheep”) significantly degraded this agricultural system, eroding soil and drying up springs and wells.¹⁰ Environmental deterioration increased during the later colonial period as European methods of capturing water in reservoirs and basin-flooding in central Mexico displaced traditional rainfed corn production.¹¹ After independence from Spain in 1821, the Mexican republic went further by draining lakes and building transportation infrastructure such as canals

⁵ K.D. WHITE, ROMAN FARMING 152-53, 157-60 (1970).

⁶ CYNTHIA JORDAN BANNON, GARDENS AND NEIGHBORS: PRIVATE WATER RIGHTS IN ROMAN ITALY 89 (2009).

⁷ MARC BLOCH, LAND AND WORK IN MEDIEVAL EUROPE 143, 158 (1969).

⁸ THOMAS F. GLICK, IRRIGATION AND SOCIETY IN MEDIEVAL VALENCIA 29-30, 242, 248-49 (1970).

⁹ LA AGRICULTURA CHINAMPERA: COMPILACIÓN HISTÓRICA (Teresa Rojas Rabiela ed. 1993).

¹⁰ ELINOR G.K. MELVILLE, A PLAGUE OF SHEEP: ENVIRONMENTAL CONSEQUENCES OF THE CONQUEST OF MEXICO 120-23, 154-55 (1994).

¹¹ Martín Sánchez Rodríguez, *Mexico's Breadbasket: Agriculture and the Environment in the Bajío*, in A LAND BETWEEN WATERS: ENVIRONMENTAL HISTORIES OF MODERN MEXICO 50, 68-69 (Christopher R. Boyer ed., 2012).

and railroads, that eliminated much subsistence hunting and farming.¹² New industries, notably sugar-growing in the state of Morelos, were highly irrigation-intensive. And with *hacendados* (owners of large estates) monopolizing water access, less financially and politically powerful peasant villages holding property in common had trouble competing and even surviving.¹³

DROUGHT, REVOLUTION, AND THE *EJIDO* SOLUTION

Severe droughts in various regions of Mexico during the late nineteenth century drastically reduced harvests (mainly corn, beans, and wheat) and caused widespread starvation.¹⁴ One of these, in the west-central state of Michoacán in 1876-77, so obliterated the ordinary yield that the population was reduced to eating cactus leaves and wild plant roots.¹⁵ The repeated food scarcity, coupled with the concentration of land and water in large estates helped spark local uprisings by rural workers, which coalesced into the 1910 Revolution against the Porfirio Díaz dictatorship.¹⁶

How radical the Revolution actually was has been highly contested by political factions and historians, but the middle-class lawyers who drafted the Constitution of 1917 at least addressed inequities in the electoral process, labor relations, Catholic Church power, control over natural resources and the need to remedy food shortages in the countryside.¹⁷ Land reform, a

¹² TORTOLERO VILLASEÑOR, *supra* note 1, at 71-73, 99.

¹³ Alejandro Tortolero Villaseñor, *Water and Revolution in Morelos, 1850-1915*, in A LAND BETWEEN WATERS: ENVIRONMENTAL HISTORIES OF MODERN MEXICO 124, 125-26 (Christopher R. Boyer ed., 2012). Mexico was not alone in the nineteenth century in suffering environmental harm from accelerated agricultural development. In British-controlled India, canal irrigation to produce indigo and sugar resulted in flooding, soil hardening, and salination. Ranajit Guha, *The Agrarian History of Northern India*, in RANAJIT GUHA, THE SMALL VOICE OF HISTORY: COLLECTED ESSAYS 119, 120 (Partha Chatterjee ed., 2009).

¹⁴ ENRIQUE FLORESCANO & SUSAN SWAN, BREVE HISTORIA DE LA SEQUÍA EN MÉXICO 56-57 (1995). For an analysis that relates Mexican events in this period with climate-induced droughts and food shortages worldwide, see MIKE DAVIS, LATE VICTORIAN HOLOCAUSTS: EL NIÑO FAMINES AND THE MAKING OF THE THIRD WORLD 260-262 (2001).

¹⁵ LUÍS GONZÁLEZ, PUEBLO EN VILO: MICROHISTORIA DE SAN JOSÉ DE GRACIA 72-73 (3d ed. 1979).

¹⁶ Tortolero Villaseñor, *supra* note 13, at 126, 145.

¹⁷ See Alan Knight, *Revisionism and Revolution: Mexico Compared to England and France*, 134 PAST & PRESENT 159 (Feb. 1992). See also Paul J. Vanderwood, *Comparing Mexican Independence with the Revolution: Causes, Concepts, and Pitfalls*, in THE INDEPENDENCE OF MEXICO AND THE CREATION OF THE NEW NATION 311-22 (Jaime

direct response to nineteenth-century elites' land- and water monopolization at the expense of the rural masses, was a principal goal of the Revolution. Thus Article 27 of the Constitution nationalized watercourses, and authorized the executive to expropriate private property and distribute the land to communities in collective ownership.¹⁸ These communal holdings, called *ejidos* in earlier draft of the Constitution, could be created as restitution (*restitución*) if a community could prove it had been dispossessed, or as an outright gift to the landless (*dotación*).¹⁹ Land rights sometimes included water rights, and from the beginning of the agrarian reform the government promoted construction of dams and irrigation works, although these were not always intended to benefit *ejidatarios* (*ejido* members).²⁰

E. Rodríguez O. ed., 1989) (assessing longstanding societal fissures over governance, foreign investment, relative economic deprivation, and land dispossession as causes of the Revolution).

¹⁸ CONSTITUCIÓN POLÍTICA DE LOS ESTADOS UNIDOS MEXICANOS [CP] Art. 27, DIARIO OFICIAL DE LA FEDERACIÓN [DOF] 05-02-17 (Mex.). "Small property" of fifty hectares (123.5 acres) or less was exempt from expropriation if distributed under previous reform laws or in undisputed ownership for more than ten years. *Id.* For a detailed discussion of the provision's legislative history, see E.V. NIEMEYER, REVOLUTION AT QUERÉTARO: THE MEXICAN CONSTITUTIONAL CONVENTION OF 1916-1917 134-65 (1974). See also KENNETH L. KARST & KEITH S. ROSENN, LAW AND DEVELOPMENT IN LATIN AMERICA 276-86 (1975) (reprinting revolutionary land distribution documents that inspired Article 27, including Emiliano Zapata's 1911 Plan of Ayala, and Venustiano Carranza's 1915 Agrarian Law). Initially, the article's drafters assumed that the courts could block the expropriation of private property in specific cases via *amparo* proceedings. IGNACIO BURGOA, EL AMPARO EN MATERIA AGRARIA 35-36 (1964). For more detailed explanation of *amparo* and the shifting views of legislators on its use in the agrarian context see *infra* text accompanying notes 40-43.

¹⁹ SUSAN R. WALSH SANDERSON, LAND REFORM IN MEXICO: 1910-1980 7 (1984). For the *ejido* reference, see NIEMEYER, *supra* note 18, at 248. The standard contemporaneous works on the *ejido* are EYLER NEWTON SIMPSON, THE EJIDO: MEXICO'S WAY OUT (1937), and NATHAN L. WHETTEN, RURAL MEXICO 182-281 (1948). For a retrospective, critical view of the program, see DANA MARKIEWICZ, THE MEXICAN REVOLUTION AND THE LIMITS OF AGRARIAN REFORM, 1915-1946 (1993). Regional variations in *ejido* distribution and management are explored in IVÁN RESTREPO & JOSÉ SÁNCHEZ CORTÉS, LA REFORMA AGRARIA EN CUATRO REGIONES: EL BAJÍO, MICHOACÁN, LA LAGUNA Y TLAXCALA (1972). In some areas, such as parts of rural Michoacán, collective land ownership had never existed and the *ejido* was seen as an alien import. GONZÁLEZ, *supra* note 15, at 251-52. Duncan Kennedy has claimed that the *ejido* was viewed as "a return to pre-Columbian modes of social organization." Duncan Kennedy, *Three Globalizations of Law and Legal Thought: 1850-2000*, in THE NEW LAW AND ECONOMIC DEVELOPMENT: A CRITICAL APPRAISAL 19, 49 (David M. Trubeck & Alvaro Santos eds., 2006). There is no evidence for this assertion in the literature. Rather, Article 27 was an attempt to address contemporary land, water, and food problems. See sources cited *supra* notes 17-19.

²⁰ On the different categories of water grants, see SANDERSON, *supra* note 19, at 7. Much hydraulic infrastructure in the 1920s was built to facilitate commercial agriculture rather than to water newly-distributed community land. See John Tutino, *The Revolutionary Capacity of Rural Communities: Ecological Autonomy and Its Demise*, in CYCLES OF CONFLICT, CENTURIES OF CHANGE: CRISIS, REFORM, AND REVOLUTION IN MEXICO 211, 243 (Elisa Servín, et al. eds., 2007). To break down who was served by this infrastructure, by 1944 approximately 60% of newly-irrigated land had gone to *ejidos* and 40% to private owners. WHETTEN, *supra* note 19, at 172-73, 229. See also LUIS

Historians of twentieth-century Mexico have divided land reform into phases, corresponding to the evolving responses of the Revolution's various constituencies. Initially, between 1920 and 1934 only 15% of the nation's cultivated land was transferred to *ejidos*.²¹ Arguably the presidential administrations of this era were more interested in developing capital-productive foods for export than in supporting peasant self-sufficiency.²² The more activist regime of Lázaro Cárdenas (1934-40) stepped up distribution, so that by 1940 *ejidos* owned 47% of cultivated land and the population living on them had doubled.²³ This administration saw the *ejido* as a means to free the rural peasantry from exploitation and starvation by creating a permanent economic base for it in the countryside.²⁴ Indeed, between 1936 and 1938, wheat production on *ejidos* almost doubled, corn harvests increased by 18%, and the country became self-sufficient in beans.²⁵ By 1940, *ejidos* collectively accounted for 51% of the value of agricultural products nationally.²⁶ Yet by the end of this period problems were becoming evident as *ejidatarios* increasingly had to compete with private growers for credit and scarce water.²⁷ In

ABOITES AGUILAR, LA IRRIGACIÓN REVOLUCIONARIA: HISTORIA DEL SISTEMA NACIONAL DE RIEGO DEL RÍO CONCHOS, CHIHUAHUA, 1927-1938 (1987) (a case study of one irrigation project).

²¹ Jean Meyer, *Revolution and Reconstruction in the 1920s*, in MEXICO SINCE INDEPENDENCE 201, 234 (Leslie Bethell ed., 1991).

²² For more detail on this phase see generally JEAN MEYER, ESTADO Y SOCIEDAD CON CALLES 85-96 (1977); LORENZO MEYER, EL CONFLICTO SOCIAL Y LOS GOBIERNOS DEL MAXIMATO 173-229 (1978).

²³ Alan Knight, *The Rise and Fall of Cardenismo, c. 1930-c. 1946*, in MEXICO SINCE INDEPENDENCE 241, 258 (Leslie Bethell ed., 1991). For more detail, see generally LUIS GONZÁLEZ, LOS DÍAS DEL PRESIDENTE CÁRDENAS 89-163 (1981).

²⁴ See Knight, *supra* note 23, at 257; WHETTEN, *supra* note 19, at 127-28. Historians debate whether Cárdenas's policies were a response to existing peasant mobilization or whether he promoted it to leverage political power. See Romana Falcón, *El surgimiento del agrarismo cardenista—Una revisión de las tesis populistas*, 27 HISTORIA MEXICANA 333 (1978). However mixed the government's motives for agrarian reform may have been, rural peasants were strongly motivated to join *ejidos* due to hunger, the desire to remain in their native localities, and the need to possess land of their own (though not necessarily on an individual basis). See GONZÁLEZ, *supra* note 15, at 220.

²⁵ JOSÉ ANTONIO MARTÍNEZ ÁLVAREZ, CRISIS ALIMENTARIAS Y SUBSISTENCIAS POPULARES EN MÉXICO: DESDE LA ÉPOCA PREHISPÁNICA HASTA EL SIGLO XX 334 (summarizing government reports on crop production).

²⁶ CYNTHIA HEWITT DE ALCÁNTARA, LA MODERNIZACIÓN DE LA AGRICULTURA MEXICANA 21 (1978) (summarizing agrarian censuses on agricultural-sector contributions to GNP).

²⁷ Knight, *supra* note 23, at 260-63.

Juan Rulfo's 1945 story on this era, when peasants were given land they often found, in the words of one of the disappointed, that "there isn't even a mouthful of water."²⁸

Under the presidency of Manuel Ávila Camacho (1940-46) the pace of distribution slowed in the face of private-sector demands that its land be protected, weakened peasant political influence, and the government's increased preference for export crops.²⁹ Large commercial holdings benefited disproportionately from publicly-financed dams and irrigation works in non-*ejido* areas.³⁰ In 1946, Article 27 was revised to grant landowners more legal recourse against seizure, as well as increased area parameters for the "small property" exempt from conversion to *ejidos*.³¹ This change, along with the overtly-developmental regime of Miguel Alemán (1946-52), inaugurated a period of accelerated commercial food production, including high-value fruits and vegetables destined for the United States and Mexican middle-class urban markets.³²

The "Green Revolutions" of the 1950s and 1960s enhanced production even further via pesticides, intensive watering techniques, and new high-yield crops.³³ However, their benefits were distributed unequally, with the bulk of price and water subsidies going to the politically-

²⁸ Juan Rulfo, *Nos han dado la tierra*, in JUAN RULFO, *EL LLANO EN LLAMAS* 109, 113 (Ediciones Cátedra 2017) (1945). The story, translated as "They Have Given us the Land," involves a group of *ejidatarios* granted a completely dry, useless plot that even buzzards avoid.

²⁹ Knight, *supra* note 23, at 263-64, 312-13. More detailed coverage of this period can be found in LUIS MEDINA, *DEL CARDENISMO AL AVILACAMACHISMO* 231-81 (1978).

³⁰ Knight, *supra* note 23, at 312.

³¹ See BLANCA TORRES RAMÍREZ, *HACIA LA UTOPIA INDUSTRIAL* 60 (1979). These reforms have been described as culminating the "rectification" of Cárdenas's policies. See MARKIEWICZ, *supra* note 19, at 67. For an explanation of the change in landowners' remedies, see *infra* text accompanying note 40.

³² Peter H. Smith, *Mexico Since 1946: Dynamics of an Authoritarian Regime*, in *MEXICO SINCE INDEPENDENCE* 321, 328-29, 340-41 (Leslie Bethell ed., 1991). For more on this era, see TORRES RAMÍREZ, *supra* note 31, at 57-86.

³³ See generally Billie R. DeWalt & David Barkin, *Mexico's Two Green Revolution: Feed for Food*, in *ANTHROPOLOGY AND FOOD POLICY: HUMAN DIMENSIONS OF FOOD POLICY IN AFRICA AND LATIN AMERICA* 12 (Della E. McMillan ed., 1991). The first Green Revolution in the 1950s and 1960s focused on wheat and corn productivity; the second concentrated on sorghum in the latter decade. Wheat and sorghum yields have been substantially increased through artificial methods, while that of corn has remained primarily a subsistence, rainfed crop grown largely by *ejidatarios* and other small farmers without access to irrigation or modern techniques. *Id.* at 14-34.

connected non-*ejido* exporters in the northwestern states of Sinaloa and Sonora.³⁴ Replacing food grains with livestock feed also led to widespread malnutrition by the 1990s.³⁵ The government's response to these problems in 1992 was amending Article 27 to allow *ejidos* to privatize and make agreements with investors, and, in the following year, ending public water subsidies.³⁶ These two measures effectively ended agrarian reform by incentivizing the sale of communal land, which primarily benefitted export-oriented agribusiness.³⁷ In 1994, the North American Free Trade Agreement (NAFTA) between Mexico, the United States, and Canada consolidated the primacy of food exports over locally consumed crops, which in turn spurred northward migration by farmers no longer able to support themselves in the countryside.³⁸

Mexico's agrarian reform, initially a response to drought-induced food scarcity, succeeded when land and water redistribution had political support among the disenfranchised rural peasantry, but ultimately failed when that base's influence waned in the face of international market pressures.³⁹ Analysis of the judicial and administrative role in controlling access to water yields further insight into why the *ejido* rose and fell.

³⁴ *Id.* at 20-21.

³⁵ *Id.* at 34-39. A major reason for this shift was the pressure from wealthy and middle-class Mexicans, whose income increased substantially in the 1970s, for a meat-based diet. *Id.* at 34. For discussion of the reactions of peasant families and *ejidatarios* to increased commercialization and demographic pressure in one region, see LAURA GONZÁLEZ MARTÍNEZ, RESPUESTA CAMPESINA A LA REVOLUCIÓN VERDE EN EL BAJÍO (1990).

³⁶ Laura Randall, *Introduction*, in REFORMING MEXICO'S AGRARIAN REFORM 3, 8 (Laura Randall ed., 1996). See also Scott Whiteford & Francisco A. Bernal, *Campesinos, Water, and the State: Different Views of La Transferencia*, in REFORMING MEXICO'S AGRARIAN REFORM 223 (Laura Randall ed., 1996).

³⁷ Willem Assies and Emilio Duhau, *Land Tenure and Tenure Regimes in Mexico: An Overview*, in LEGALISING LAND RIGHTS: LOCAL PRACTICES, STATE RESPONSES AND TENURE SECURITY IN AFRICA, ASIA AND LATIN AMERICA 355, 382 (Janine M. Ubink, et al., 2009). For varieties of regional responses to the 1992 legislation, see THE TRANSFORMATION OF RURAL MEXICO: REFORMING THE EJIDO SECTOR (Wayne A. Cornelius and David Myhre, eds., 1998).

³⁸ See generally ALYSHIA GÁLVEZ, EATING NAFTA: TRADE, FOOD POLICIES, AND THE DESTRUCTION OF MEXICO (2018). Within food regime theory, this trend in Mexico may be situated within the emerging neoliberal, corporate domination of global agriculture, including the application of exclusive patent rights, that has been called the "third food regime." See Gabriela Pechlaner & Gerardo Otero, *The Third Food Regime: Neoliberal Globalism and Agricultural Biotechnology in North America*, 48 SOCIOLOGIA RURALIS 351, 362-66 (2008); Anne Saab, *An International Law Approach to Food Regime Theory*, 31 LEIDEN J. INT'L L. 251, 259 (2018).

³⁹ For an analysis linking the trajectory of government support to abandonment of the *ejido* with Mexico's need for political stability, see generally MARKIEWICZ, *supra* note 19.

MEXICAN SUPREME COURT CASES, 1925-1954

Judicial intervention in *ejido* water disputes took place when parties challenged specific government actions using the *amparo* remedy. *Amparo* is a Mexican federal court proceeding by which an individual or entity can claim that a law, court judgment, or act by a public authority should be nullified as unconstitutional; it usually has no precedential effect.⁴⁰ An *amparo* petition against administrative officials is initially filed in a lower federal court and can be appealed to the Supreme Court.⁴¹ Following the Revolution, agrarian laws, anticlerical restrictions, and labor legislation were all attacked via *amparo*, with varying degrees of success.⁴² Significantly, in 1931 Mexico's Congress statutorily barred most property owners from using *amparo* to invalidate *ejido* grants, and then reversed itself by amending Article 27 in 1946 to reinstate the remedy in agrarian proceedings.⁴³ These legislative parameters served as

⁴⁰ See generally Héctor Fix-Zamudio, *A Brief Introduction to the Mexican Writ of Amparo*, 9 CAL. W. INT'L L.J. 306 (1979). See also José María Serna de la Garza, *The Concept of Jurisprudencia in Mexican Law*, 1 MEXICAN L. REV. 131, 137-38 (2009). After 1882, five successive *amparo* judgments on the same point of law established *jurisprudencia* (binding precedent). *Id.* at 132-35. In 2021 the Constitution was amended to provide that *jurisprudencia* would be created by majorities of 8 out of 11 *ministros* (justices) sitting in plenary session, or 4 out of 5 in a panel. CP Art. 94, DOF 05-02-1917, últimas reformas DOF 11-03-2021 (Mex.). For more detailed historical analyses and critiques of *amparo*, see M.C. Mirow, *Marbury in Mexico: Judicial Review's Precocious Southern Migration*, 35 HAST. CONST. L.Q. 41 (2007); STEPHEN ZAMORA, ET AL., MEXICAN LAW 257-74 (2004). Versions of *amparo* as a check on official action have been adopted in other Latin American countries, including Argentina, Brazil, Colombia, Nicaragua, and Venezuela, as well as in Spain. See generally H. Fix-Zamudio, *El juicio de amparo en Latinoamérica* (1978), reprinted in LATINOAMÉRICA: CONSTITUCIÓN, PROCESO Y DERECHOS HUMANOS 273 (H. Fix-Zamudio ed., 1988); EDUARDO FERRER MAC-GREGOR, LA ACCIÓN CONSTITUCIONAL DE AMPARO EN MÉXICO Y ESPAÑA: ESTUDIO DE DERECHO COMPARADO (2000). A sampling of Mexican and Argentine *amparo* cases can be found in KARST & ROSENN, *supra* note 18 at 127-82.

⁴¹ The *amparos* discussed here are considered "indirect" because challenges to laws or official acts must initially proceed through a federal District Court before being appealed, while "direct" *amparos* challenging court decisions (federal or state) are filed in an appellate tribunal. See ZAMORA, ET AL., *supra* note 40, at 266-68. The indirect/direct categories were an innovation of the Constitution of 1917. See CP Art. 107, DOF 05-02-1917 (Mex.). For discussion of this provision and subsequent amendments, see JOSÉ MARÍA SERNA DE LA GARZA, THE CONSTITUTION OF MEXICO: A CONTEXTUAL ANALYSIS 118-23 (2013).

⁴² See, e.g., TIMOTHY M. JAMES, MEXICO'S SUPREME COURT: BETWEEN LIBERAL INDIVIDUAL AND REVOLUTIONARY SOCIAL RIGHTS, 1867-1934 75-104 (2013) (land redistribution); PETER L. REICH, MEXICO'S HIDDEN REVOLUTION: THE CATHOLIC CHURCH IN LAW AND POLITICS SINCE 1929 81-89, 114 (1995) (limitations on religion); WILLIAM J. SUÁREZ-POTTS, THE MAKING OF LAW: THE SUPREME COURT AND LABOR LEGISLATION IN MEXICO, 1875-1931 (worker organizing protections).

⁴³ See BURGOA, *supra* note 18, at 47-54, 79-81.

markers of government ideological shifts, but the Supreme Court still retained considerable discretion, as will be apparent.⁴⁴

The twenty-five Supreme Court *amparo* cases related to *ejido* water rights that appear in the Court's official reporter, the *Semanario Judicial de la Federación y su Gaceta* (SJFG), during the post-revolutionary period provide a window into how the judiciary approached the various phases of agrarian reform.⁴⁵ To focus on the connection between *ejidos* and water access, the author conducted a search of the hard copy and the online versions of the Court's digest, looking for decisions where the words “*aguas*” and “*ejidos*” appeared in the same opinion beginning in 1918.⁴⁶ The published opinions retrieved cover the years 1925-54. The number of *ejido* water supply cases dropped significantly after 1948, and none exist from the mid-1950s through the late 1960s, when in an increasingly privatized food production environment landowners no longer needed to litigate against *ejidatarios* over water.

Amparo petitions to the Court came from a variety of states, their geography and crops affecting the amount of water necessary for irrigation. Arid northern Mexico has traditionally required substantially more irrigation than the South, with the central region somewhere in between.⁴⁷ During the period studied, farm products in the North included beef, wheat, vegetables, poultry, sugar, and cotton; the Center grew beans, corn, agave, and wheat; and the

⁴⁴ See JAMES, *supra* note 42, at 76-77; MARKIEWICZ, *supra* note 19, at 167. During the period under discussion the Court had some institutional independence from the executive and legislative branches: Although *ministros*, or justices, were appointed by the President and confirmed by the Senate, they held life tenure except from 1934 to 1944, when they had six-year terms. SERNA DE LA GARZA, *supra* note 41, at 106-09.

⁴⁵ Copies of SJFG judgments were obtained from the University of Arizona Law Library, the Los Angeles County Law Library, and the UCLA Law Library.

⁴⁶ Digest topic indices appear in the SJFG's hard copy volumes, and the online digest is searchable by key word in <https://sjf.scjn.gob.mx> under “Búsqueda de tesis.” The author eliminated decisions in which “*aguas*” and “*ejidos*” were merely cited in statutory language but not addressed as substantively linked.

⁴⁷ See JAMES B. PICK & EDGAR W. BUTLER, THE MEXICO HANDBOOK: ECONOMIC AND DEMOGRAPHIC MAPS AND STATISTICS 251 (1994) (map of regions' irrigable land areas). See also DAVID BARKIN & TIMOTHY KING, REGIONAL ECONOMIC DEVELOPMENT: THE RIVER BASIN APPROACH IN MEXICO 41-71 (1970) (discussing variations in development potential).

South raised coffee, rice, tobacco, henequen, and bananas.⁴⁸ These variations affected the relative competition for water, with *ejidos* concentrated in the Center vying with a range of private owners of various-sized plots, while the North, with fewer *ejidos* but also less water, became the recipient of government infrastructure primarily benefitting larger estates.⁴⁹

Of the twenty-five case decisions surveyed, thirteen favored an *ejido* position and the others found for private property owners. Towards the end of the period studied pro-landowner results became predominant, although throughout these years the Court consistently manifested concerns about economic efficiency and accepted legal doctrine. In a general sense, the trend in the case law reflects the Mexican Revolution's later move to privatize water rights and increase food production.

Pro-Ejido Decisions

Beginning with the judgments favoring *ejidos*, in *Espinosa, Agustín* (decisions are named for the complainant), a 1925 case from the Estado de México (the State of Mexico, surrounding but not including Mexico City), the Court's *Pleno* (plenary panel of all *ministros*, or justices) unanimously denied the *amparo* petition of a hacienda owner challenging the National Agrarian Commission's grant of a local stream to the *ejido* of San Lorenzo Octeyuru. The opinion stated that both "society and the state are very interested in the resolution of the agrarian problem." Nevertheless, the hacienda was allowed to continue using water not affected by the *ejido* grant.⁵⁰

⁴⁸ See generally CLAUDE BATAILLON, *LAS REGIONES GEOGRÁFICAS DE MÉXICO* (3d ed. 1976) (mapping crops grown by region).

⁴⁹ See Meyer, *supra* note 21, at 234; TORTOLERO VILLASEÑOR, *supra* note 1, at 100-103.

⁵⁰ Amparo administrativo. Revisión del incidente de suspensión. Pleno de la SCJN, SJFG, Quinta Época, tomo XVI, febrero de 1925, Tesis 1111/20, Página 430 (Mex.). The Comisión Nacional Agraria (National Agrarian Commission) had authority to recommend to the president that *ejido* grants be approved, so was often the target of *amparo* requests. See SIMPSON, *supra* note 19, at 58.

The following year, in “*Fábrica de Papel de San Rafael y Anexas, S.A.*,” another case arising from the Estado de México, the *Pleno* unanimously denied a paper manufacturing company’s *amparo* claim that water granted to several *ejidos* for times during the week when its factory was not operating constituted an unconstitutional expropriation. Affirming that “the settlement of the agrarian problem is of vital importance to the entire nation, and the rightful appropriation of waters is indispensable to resolve this problem,” the Court also refused to indemnify the company.⁵¹

In a further 1926 case, again from the Estado de México, *Albarrán, Viuda de Silva, Josefa*, the *Pleno* unanimously denied the complainant’s *amparo* challenge to the grant of a spring to the *ejido* of Santiago Yeché. And again, the *ministros* were careful to maintain landowner rights not interfering with those of the *ejido*, in this case to *maguey* (agave) already planted and to unused spring water.⁵²

Vives, Antonio, y Coagraviados, a 1928 dispute from the central state of San Luis Potosí, gave the *Pleno* another opportunity to deny, unanimously, an *amparo* request. An *hacendado* complained that the National Agrarian Commission wrongfully approved irrigation rights for the Palo Seco *ejido*. As in previous cases, the Court rejected the requested *amparo* but preserved landowner’s right to irrigate using excess water.⁵³

A more complicated dispute arose in Hidalgo, a central state, in 1929. In *Sociedad de Liquidación Martínez de la Concha y Zenil*, an *hacendado*’s creditors challenged the Secretary of Agriculture for reducing the water quantity that could be taken to serve the hacienda from an

⁵¹ Amparo administrativo en revisión. Pleno de la SCJN, SJFG, Quinta Época, tomo XIX, Agosto de 1926, Tesis 1322/24, Página 266 (Mex.). The “agrarian problem” appears to refer to the national question of land inequity; redistribution was pointless without *ejidos* being supplied with the water they needed for agricultural production.

⁵² Amparo administrativo en revisión. Pleno de la SCJN, SJFG, Quinta Época, tomo XIX, Septiembre de 1926, Tesis sin número, Página 419 (Mex.).

⁵³ Amparo administrativo. Revisión del incidente de suspensión. Pleno de la SCJN, SJFG, Quinta Época, tomo XXII, abril de 1928, Tesis 883/28, Página 942 (Mex.).

irrigation canal linked to the Tepeji River. A federal district judge granted *amparo*, but in a 3/2 split decision a panel of the Supreme Court reversed. The majority stated that the Secretary did not deprive the complainants of property or possession because the reduction simply corresponded to the proportion of land transferred from the hacienda to the *ejido*.⁵⁴

The Court again reversed a lower ruling in a 1931 decision, *Amezcuca, Viuda de Cobía, Encarnación*, this time unanimously. After the state authorities in Michoacán (Center-west) and the National Agrarian Commission allowed the *ejido* of Curimeo water rights to a local river as well as to a spring arising on complainant's land, the District Judge issued an *amparo* as to the latter. But the Supreme Court panel disagreed, considering that the same legal principle "applied to springs as to rivers." That is, the landowner had to have acquired the water by accession (natural increase), which the Court held had not occurred.⁵⁵

Less contentious was a 1936 judgment, *Agraz, Viuda de Baez, Virginia y Coagraviados*, in which the Secretary of Agriculture refused to confirm complainant's water rights because they had been awarded to the *ejido* of Acatlán de Juárez, Jalisco (Center-west) by presidential resolution. The Supreme Court panel agreed with the lower tribunal's denial of the *amparo*, and unanimously held that "supposed rights to private property must give way to Article 27's absolute precept regarding agrarian matters."⁵⁶

In "*Compañía Colonizadora de Tlahualillo, S.A.*," a conflict between a cotton-growing company and a Ciudad Lerdo, Durango (Northwest), the District Court issued an *amparo* against the authorities' prohibiting non-*ejido* use of the Nazas River for irrigation. A Supreme Court

⁵⁴ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo XXV, enero de 1929, Tesis 1374/21, Página 19 (Mex.).

⁵⁵ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo XXXI, enero de 1931, Tesis 3583/28, Página 260 (Mex.).

⁵⁶ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LXIX, Agosto de 1936, Tesis 2536/75, Página 1141 (Mex.).

panel reversed unanimously in 1936, ruling that protecting the *ejidatarios* was of “particular interest to society and the State.”⁵⁷

As the Cárdenas administration continued to expropriate haciendas, especially foreign ones, two U.S. companies whose holdings in the northeastern border state of Tamaulipas had been seized challenged the government’s refusal to indemnify them. Complainants in *Mexican Realty Company & Mexican Land Company*, a 1939 case, requested payment in the form of local water use, but the District Court denied *amparo* and the ruling was unanimously affirmed by a Supreme Court panel. In its opinion, the latter emphasized the importance of preserving *ejido* water rights.⁵⁸

The Court maintained its generally pro-*ejido* stance during this period in another 1939 decision, *Córdova, Elías C.*, from San Luis Potosí (Center). A lower judge denied *amparo*, and a Supreme Court panel unanimously agreed, when authorities allowed *ejidatarios* to draw from a reservoir on complainant’s property. The Court ruled that the government could regulate the amount of water available for irrigation, and in this case the landowner still had “adequate use” for his needs.⁵⁹

A similar case came to the Court the following year from the central state of Querétaro, *Loyola de Vicente, Consuelo y Coagraviados*. The Agrarian Department granted an *ejido* 21% of the water behind a dam owned by complainant, and the latter’s *amparo* petition was rejected by both the District and Supreme Courts. In their unanimous opinion, the panel of *ministros* cited

⁵⁷ Amparo administrativo. Revisión incidente de suspension, Primera Sala de la SCJN, SJFG, Quinta Época, tomo L, diciembre de 1936, Tesis 563/23, Página 1852 (Mex.). For further context on disputes over the Nazas River in the Laguna District straddling the northern states of Coahuila and Durango, see generally ROMERO NAVARRETE, *supra* note 1; WOLFE, *supra* note 1.

⁵⁸ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, tomo LIX, enero de 1939, Tesis 8080/38, Página 728 (Mex.).

⁵⁹ Amparo administrativo. Revisión incidente de suspension. Primera Sala de la SCJN, SJFG, Quinta Época, tomo LIX, febrero de 1939, Tesis 6433/38, Página 1046 (Mex.).

the current version of Article 27, which barred *amparos* against *ejido* grants, and emphasized the assumption that all waters were considered federal unless otherwise allocated.⁶⁰

Sometimes the Court sided with an *ejido* on a narrow, technical basis, as in the 1943 decision in *Sainz Trinidad, Irene y Coagraviados*. Puebla (Center) *hacendado* José Antonio Sainz brought an *amparo* action on behalf of his minor daughters, who were to inherit his estate, claiming that they owned seven days per month of water seepage which the state Agrarian Commission had wrongfully granted to two nearby *ejidos*. The District Court and a unanimous Supreme Court panel denied the petition on the ground that, since the Commission's decree could still be modified by the president, the order was only "provisional" and not yet subject to challenge by *amparo*.⁶¹ Such modifications were extremely unlikely, but this ripeness argument was a way the Court could easily dispose of the matter and achieve a desired result.

Culminating its series of pro-*ejido* decisions in the post-revolutionary decades, the Court ruled on an unusual *amparo* request from Puebla (Center), brought by a member of an *ejido* which had allowed him an extra six water hours for irrigation, only to have the municipal authorities prevent the allocation. In *Garibay, César*, the District Court sided with the town. But in 1944 a Supreme Court panel unanimously reversed, granting the *amparo* because the *ejidatario*'s water turn constituted property of which the city had dispossessed him.⁶² In fact, by the mid-1940s *ejidos* were beginning to incentivize their members' entrepreneurial initiative, so this judgment simultaneously promoted their collective water rights and economic efficiency.

⁶⁰ Amparo administrativo. Revisión del auto que desecho la demanda. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LXX, abril de 1940, Tesis 1642/39, Página 4749 (Mex.).

⁶¹ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LXXV, febrero de 1943, Tesis 10125/42, Página 4824 (Mex.).

⁶² Amparo civil. Revisión del incidente de suspensión. Primera Sala de la SCJN, SJFG, Quinta Época, tomo LXXX, abril de 1944, Tesis 9138/43, Página 707 (Mex.).

Anti-Ejido Decisions

Judgments disfavoring *ejidos* began appearing in the 1920s alongside pro-*ejido* ones, occurred more frequently towards the end of the period studied, and usually relied on economic and equitable arguments rather than on agrarian policy. As early as 1926 the case of *Sucesiones acumuladas de Rangel, Francisco y Gómez de Rangel, Concepción* exemplified this trend. Here, state and local authorities awarded an Aguascalientes (Center) *ejido* ownership of certain private reservoirs and canals, enabling it to irrigate non-*ejido* plots to the detriment of a neighboring hacienda. The District Court granted *amparo* and the Supreme Court's plenary panel affirmed in a 7/3 judgment. The SCJN majority held that the infrastructure grant exceeded the *ejido*'s current needs, so it harmed its neighbor's interests unnecessarily, while the dissenters thought the state decree was only provisional and could not yet be challenged.⁶³ Most of the *ministros* thus evinced a willingness to give a landowner the benefit of the doubt and construe the *ejido* grant narrowly in the interests of efficiency and fairness.

Rather than a conflict over actual water usage, *García Pimentel, Luis*, a Morelos (Center) case in 1928, presented a starker contrast between water necessity and non-necessity. State and local officials had ordered the transfer of a canal from which the complainant was irrigating to an *ejido* drawing sufficient water from another source. Both the District and Supreme Courts granted the *amparo* petition, the latter unanimously.⁶⁴ Similarly, in *Sucesiones de Cosío, Francisco G. de y otros* from Querétaro (Center), the National Agrarian Commission gave spring water with which complainants were irrigating to an *ejido* with no immediate plan to do so. Although the District Court denied *amparo*, in 1930 a Supreme Court panel unanimously

⁶³ Amparo administrativo en revisión. Pleno de la SCJN, SJFG, tomo XVIII, marzo de 1926, Tesis 2697/25, Página 651 (Mex.).

⁶⁴ Amparo administrativo. Revisión del incidente de suspensión. Pleno de la SCJN, SJFG, tomo XXIII, junio de 1928, Tesis sin número, Página 415 (Mex.).

reversed. The *ministros* grounded their judgment on the technicality that at the time of the grant only the president and the state government were empowered to transfer water. But the result clearly favored efficient use.⁶⁵

The Court combined its efficiency concern with the promotion of agricultural productivity in *Valle, Viuda de Mier y Terán, María del*, a 1931 Estado de México (Center) decision. National, state, and local authorities granted spring water being used by complainant to an *ejido*, even though irrigating the latter's hilly terrain would require "very costly and antieconomic" construction of pumps and an aqueduct. Further, the landowner needed a considerable quantity of water to support its newly planted wheat, which demands far more irrigation than does corn. Although the District Court denied *amparo*, the Supreme Court's panel reversed unanimously. In the opinion's language, sustaining the order would provide "practically no benefit" to the *ejido* but "would cause notable prejudice to the private properties."⁶⁶

During the later years of the Cárdenas presidency the Court became increasingly sympathetic to developmentalist arguments, calibrating its holdings when both *ejidos* and landowners were actively using water. In *Vega Almada, José de la*, a 1937 case from Sinaloa (Northwest), the National Agrarian Commission and its state representative confirmed an *ejido*'s grant of water for irrigation, which flow was then being used to power complainant's sugar mill. The District Court issued an *amparo* guaranteeing water to the landowner's entire tract, but the Supreme Court unanimously limited the order to ensure supply to the portion where the mill was operating, but still allowing the *ejido* to continue irrigating with the remainder.⁶⁷ For the Court,

⁶⁵ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo XXX, septiembre de 1930, Tesis 3450/24, Página 559 (Mex.).

⁶⁶ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, tomo XXXI, enero de 1931, Tesis 2125/27, Página 253 (Mex.).

⁶⁷ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, tomo LI, enero de 1937, Tesis 1327/36, Página 72 (Mex.).

the aim of promoting agricultural production justified depriving an *ejido* of some of its water, but not what was unnecessary for that goal.

In a reprise of the medieval disputes over water and grain milling, local authorities in La Laguna, Coahuila (North) ordered a landowner's *noria* (watermill) conveyed to an *ejido*, initiating *González Fariño, Eduardo* in 1938.⁶⁸ Although the District Court refused to award *amparo*, a Supreme Court panel unanimously reversed, considering that the owner here fell within the exemption for "small proprietors" under the then-current version of Article 27.⁶⁹ A watermill in use counted as a valuable economic activity which would not benefit the nation more if an *ejido* rather than a private owner were operating it.

An unusual 1939 case in which an *ejido* sought *amparo* against the government, *Comisariado Ejidal del Poblado de "Emiliano Zapata" y Coagraviados*, involved a spring in Hidalgo (Center). The Secretary of Agriculture and the town council of Tulancingo had declared it to be "national waters" and ordered the construction of capture works to benefit the owner of the land where the water arose. The District Court denied *amparo* on two grounds: The body representing the *ejido* was not properly constituted, and the *ejido*'s original title had not included the spring, so it could not claim the water. A Supreme Court panel unanimously affirmed, in line with its greater readiness to construe *ejido* grants narrowly in favor of private owners.⁷⁰

In *Herrejón, Francisco y Sucesores*, a 1940 case from Michoacán (Center-west), the Court explicitly elevated landowners' rights. The Secretary of Agriculture ordered the owner of a sugar plantation near Morelia, the state capital, to cease operating his mill using the Huarimeo

⁶⁸ See BLOCH, *supra* note 7.

⁶⁹ Amparo administrativo. Revisión del auto que desecho la demanda. Segunda Sala de la SCJN, SJFG, tomo LV, marzo de 1938, Tesis 5035/37, Página 3109 (Mex.).

⁷⁰ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LX, abril de 1939, Tesis 1022/39, Página 722 (Mex.).

River because its water was part of an *ejido* grant. Although the District Judge recognized this title and refused the *amparo* petition, a Supreme Court panel reversed unanimously because the *ejido* had not presented any proof of prejudice and it was necessary to respect “private property as set out in the Constitution.”⁷¹ Here the panel backed up the ideology of efficient use with legal principle.

After the Cárdenas era, the Court intervened even more aggressively to limit *ejido* water access. A 1943 dispute from Colima (Center-west), “*Vergara y Rangel*,” *S. en N.C.*, arose when state authorities attempted to enforce an agreement between an agricultural company and an *ejido* to allow the latter to divert the entire flow of three streams. The District Court granted *amparo* and a Supreme Court panel unanimously assented, holding that the order deprived the company of the water volume to which it had confirmed title.⁷² In this case the parties’ consent (given, perhaps, because of their relative ability to utilize the rivers’ flow) yielded to the Court’s preference for private-sector development.

By 1948, water privatization was in full swing. In *Comisariado Ejidal del Poblado “La Plata”* a Durango (Northwest) *ejido* sought *amparo* against national and local hydraulic authorities for cutting off its irrigation access to the Nazas and Aguanaval Rivers. The District Court denied the request and a Supreme Court panel agreed unanimously: The *ejido*’s grant did not include any water title, its property was not classified as irrigable but rather as “working pasture and wastelands,” and it had taken stormwater overflow from the rivers only in a “temporary, sporadic, and precarious fashion.” With the completion of the Lázaro Cárdenas dam on the Nazas in 1946, the government solely managed water allocation in the Laguna sector, and

⁷¹ Amparo administrativo. Revisión incidente de suspensión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LXV, julio de 1940, Tesis 1209/40, Página 102 (Mex.).

⁷² Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo LXXV, marzo de 1943, Tesis 3053/42, Página 6377 (Mex.).

the *ejido*'s occasional use did not establish a permanent right.⁷³ The judgment demonstrates the Court's complete reversal of the pro-*ejido* stance seen in its 1936 Tlahualillo decision regarding the Laguna; the Cárdenas administration had initiated the dam that year to benefit *ejidatarios*, but the developmentalist Alemán regime turned it to the advantage of landowners.⁷⁴

A pair of 1954 cases from Durango (Northwest) and San Luis Potosí (Center), respectively, were the last *ejido* water matters the Supreme Court decided during the period of agrarian reform. In *Parra, Rafael de la*, the Court unanimously issued an *amparo* against officials who permitted an *ejido* to occupy land and divert water not part of its grant, to the prejudice of a neighboring landowner, where the *ejido* had not acquired any prior servitude for these uses.⁷⁵ In the other decision, *Rodríguez Cabo, José y Coagraviados*, the Court granted an *amparo* against authorities who were allowing *ejidatarios* to interfere with the construction and repair of hydraulic works on the Choy River. The Court's panel ruled unanimously that the Agrarian Department could not impose an additional requirement of *ejido* consent for an approved infrastructure project to move forward.⁷⁶ These holdings show that the Court's bureaucratic oversight no longer permitted officials any discretion to favor *ejidos* during the nation's transition from communal to corporate water control and, hence, food production. This lack of legal traction for pro-*ejido* arguments explains why such water matters dropped off the Supreme Court's docket after the mid-1950s—private landowners now benefitted from a more favorable regulatory environment.

⁷³ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo XCVII, septiembre de 1948, Tesis 2451/48, Página 2300 (Mex.).

⁷⁴ See WOLFE, *supra* note 1, at 221-22.

⁷⁵ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo CXX, junio de 1954, Tesis 3584/53, Página 883 (Mex.).

⁷⁶ Amparo administrativo en revisión. Segunda Sala de la SCJN, SJFG, Quinta Época, tomo CXXXI, diciembre de 1954, Tesis 4126/53, Página 1578 (Mex.).

Reviewing the Supreme Court's *ejido* water cases indicates that they trended pro-*ejido* in the 1920s and 1930s and became increasingly pro-landowner in the 1940s and 1950s. The regions from which disputes were appealed seem not to correlate significantly with their substantive resolution. Of the pro-*ejido* decisions, twelve came from the Center and one from the North, while the pro-landowner judgments responded to eight and four requests from those areas, respectively. This slight difference in ratio may be explained by the North's more agribusiness orientation—larger estates and fewer *ejidos*. Still, in relation to the results, historical context mattered a great deal and geographical differences not as much. Notably, none of the cases retrieved arose in the South; arguably, that region's numerous rivers and heavy rainfall made water controversies less likely, or in remoter areas disputes may have been settled locally without recourse to the formal legal system. In all the reviewed cases, then, the Court seems to have weighted agrarian policy, economic efficiency, and legal doctrine more to suit the phase of the land reform process than the location. Nor did any of the decisions cite previous holdings that would have triggered *jurisprudencia*, or binding precedent once five consistent rulings had been made.⁷⁷ These findings bear out the observation of Mexican historian Daniel Cosío Villegas regarding the Constitution of 1917 generally: Despite that revolutionary document's adding a number of new legal rights, "the judicial power has rarely felt free and distinct from the executive."⁷⁸

WATER ADMINISTRATION AND FOOD PRODUCTION IN SINALOA

Having surveyed Supreme Court decisions on *ejido* water access permits zeroing in below the judicial level, by examining archival records revealing the importance of local administrators in one state. Sinaloa, in mostly arid northwestern Mexico, is striated with eleven

⁷⁷ See explanation of precedence, *supra* note 40.

⁷⁸ DANIEL COSÍO VILLEGAS, 1 ENSAYOS Y NOTAS 374 (1966).

fertile river valleys which became the locus of foreign investment in cotton, sugar, tobacco, and other export crops.⁷⁹ As in other states the Revolution arose against a background of deplorable rural and urban labor conditions, but here included a rebellion by the indigenous Mayo people, who allied themselves with revolutionary leader Francisco (“Pancho”) Villa before being crushed by the victorious constitutionalist faction.⁸⁰ Under the Cárdenas presidency’s pro-subsistence agrarian policies, many large haciendas were expropriated and transferred to *ejidos*, although landowners often could sell to other private parties.⁸¹ By the 1940s, Sinaloa’s agricultural economy was primarily export-oriented, with sugar, garbanzos, vegetables, and other food products grown for the U.S. market.⁸² In the next several decades the state received more federal investment in hydraulic infrastructure than did any other, and by 2012 contained 40% of all irrigated land in the country.⁸³

Sinaloa documents from the Archivo Histórico de Agua (AHA), Mexico’s national repository of manuscript sources on water, shed light on how agrarian reform was managed at the local administrative level.⁸⁴ Twelve of its 381 items, administrative proceedings covering roughly the same period as the judicial decisions, deal with many of the same issues, and occasionally the same stakeholders, that figure in the cases. They also reveal similar trends in regulation of *ejido* water access.

⁷⁹ See Sergio ORTEGA NORIEGA, *HISTORIA BREVE DE SINALOA* 15-27 (3d ed. 2011); Arturo Carrillo Rojas, *Situación de la agroindustria en Sinaloa de 1911 a 1940*, in *DEBATES SOBRE EL NOROESTE DE MÉXICO: AGRICULTURA, EMPRESAS Y BANCA* (1906-1940) 109, 132-33 (Jesús Méndez Reyes & Gustavo Aguilar Aguilar eds., 2012).

⁸⁰ See ORTEGA NORIEGA, *supra* note 79, at 263-74.

⁸¹ See *id.* at 283-87; César Aguilar Soto, *Marco jurídico, política agrarian y sistemas de propiedad en Sinaloa* (1915-1934), in *DEBATES SOBRE EL NOROESTE DE MÉXICO: AGRICULTURA, EMPRESAS Y BANCA* (1906-1940) 137, 152 (Jesús Méndez Reyes & Gustavo Aguilar Aguilar eds., 2012).

⁸² María de Jesús López López, *Agricultura de irrigación y empresas en Sinaloa (1930-1940)*, in *DEBATES SOBRE EL NOROESTE DE MÉXICO: AGRICULTURA, EMPRESAS Y BANCA* (1906-1940) 177, 178 (Jesús Méndez Reyes & Gustavo Aguilar Aguilar eds. 2012).

⁸³ *Id.* at 178-85.

⁸⁴ *HISTORIA DEL AGUA EN SINALOA, SIGLO XX: CATÁLOGO DE DOCUMENTOS HISTÓRICOS DEL ARCHIVO HISTÓRICO DEL AGUA* (Arturo Carrillo Rojas et al. eds., CD-ROM 2012).

Initially the government (mainly at the national level) actively helped ensure water supplies to Sinaloa users. In 1920, one of the expropriated haciendas, “El Aguila,” was partially converted into an *ejido*, and a manuscript map displays different land use categories according to readiness for crop planting: ploughed, cross-ploughed, and irrigated.⁸⁵ Such property distribution aimed to facilitate subsistence food production, so in a 1924 order the Secretary of Agriculture required a local landowner to cease requiring neighboring *ejidatarios* to sell him an “exaggerated” portion of their harvest in exchange for water access via a canal he controlled.⁸⁶ Similarly, four years later the Secretary ordered the Almada Company (a party in the 1937 *Vega Almada* mill case discussed above) to prevent a river on its property from changing course and interfering with a canal supplying smaller irrigators, both *ejidos* and others.⁸⁷ An engineer’s report setting forth technical reasoning supplemented the requirement.⁸⁸

By the late 1920s, the national government was closely monitoring the water supply for Sinaloa agriculture in order to respond to *ejidatarios*’ needs. For example, an Agriculture Department inspector sent an extensive report to his superiors in 1929, detailing available infrastructure and labor conditions in the Río San Lorenzo Valley.⁸⁹ Following up the next year, an engineer analyzed the water necessary to support various crops for each canal in the area, and feasible reductions in times of drought.⁹⁰

Once Lázaro Cárdenas took power, the administration pursued a more aggressive policy supporting *ejido* irrigation. In 1935 the National Agrarian Credit Bank (a government financial institution) requested a technical study of the dam and canal construction necessary to provide

⁸⁵ AHA, Aprovechamientos Superficiales, caja 152, expediente 3623, f. 37 (1920).

⁸⁶ AHA, Aprovechamientos Superficiales, caja 1126, expediente 15809, f. 194 (1924).

⁸⁷ AHA, Aprovechamientos Superficiales, caja 522, expediente 8064, fs. 389-390 (1928). For the *Vega Almada* decision, see *supra* text accompanying note 67.

⁸⁸ AHA, Aprovechamientos Superficiales, caja 975, expediente 13731, fs. 477-483 (1928).

⁸⁹ AHA, Aprovechamientos Superficiales, caja 4886, expediente 68126, fs. 320-325 (1929).

⁹⁰ AHA, Aprovechamientos Superficiales, caja 540, expediente 8121, fs. 303-322 (1930).

water to six *ejidos* in the Río Presidio Valley.⁹¹ *Ejidatarios* continued to find a receptive ear to their requests. In 1939, the Cultivadores de Caña de Azúcar, a group of sugar-growing collectives, petitioned the president to expropriate a canal belonging to the Almada family, arguing that “we do not doubt that as always you try to protect the interests of the working class of the countryside.”⁹² And indeed, most of the Almada sugar hacienda was ultimately seized and distributed.⁹³ Manifesting the government’s pro-*ejido* plans, a lengthy 1940 internal memorandum laid out the legal rights and water needs of seven communities in the Río Sinaloa Valley, and the infrastructure available to address them.⁹⁴

However, the 1940s began an era of official withdrawal from ensuring water access and promotion of private irrigators’ agreements. With less direct government aid, groups of users, including *ejidos*, created irrigation districts for self-governance and financing improvements, as seen in an agreement signed in Bamoa, Sinaloa, in 1942.⁹⁵ Secretary of Agriculture Marte R. Gómez encouraged such self-help with economics in mind when he formed a 1946 commission composed of Sinaloa *ejidatarios* and private owners to “better use waters, more efficiently manage irrigation works, adequately conserve, and protect rural workers’ rights.”⁹⁶ A 1950 water-sharing agreement in the Río Sinaloa Valley among local users, with provisions for drought reductions, exemplifies this shift from public to private allocation.⁹⁷

Sinaloa’s administrative records, then, demonstrate a trajectory from the government’s promotion of *ejido* water access to its encouragement of voluntary, private-sector distribution rights similar to that reflected in the Supreme Court cases. They thus show that the Court did not

⁹¹ AHA, Aprovechamientos Superficiales, caja 1976, expediente 29605, fs. 2-8 (1935).

⁹² AHA, Aprovechamientos Superficiales, caja 979, expediente 13782, fs. 93-99 (1939).

⁹³ See López, *supra* note 82, at 183.

⁹⁴ AHA, Aprovechamientos Superficiales, caja 1125, expediente 15807, fs. 352-382 (1940).

⁹⁵ AHA, Aprovechamientos Superficiales, caja 546, expediente 8139, fs. 209-219 (1942).

⁹⁶ AHA, Aprovechamientos Superficiales, caja 553, expediente 8176, f. 198 (1946).

⁹⁷ AHA, Aprovechamientos Superficiales, caja 546, expediente 8139, fs. 343-344 (1950).

operate in isolation, and that legal and local officials' actions were mutually reinforcing within the changing political context of Mexican agrarian reform. Further, certain solutions were not always offered through judicial proceedings: In "*Vergara y Rangel*," the Court blocked an *ejido*-landowner water-sharing contract, an example of an informal, local arrangement.⁹⁸ This flexibility allowed stakeholders to adjust their water demands and produce food crops according to conditions only sometimes recognized or responded to by the legal system.

CONCLUSION

The Supreme Court decisions examined in this chapter illustrate the relationship between Mexico's post-revolutionary jurisprudence and the phases of its agrarian reform. The Court's judgments tilted in favor of *ejido* water access in the 1920s and 1930s and changed course to privilege agricultural privatization in the 1940s and 1950s. The phases of land reform seem to have been more important in this shift than were the cases' regions of origin. Some opinions explicitly referred to legal doctrines (such as prescription) and specific constitutional or statutory language, but these citations still tended to accord with the *ministros*' evolving policy preferences. The Court also omitted mention of any prior rulings that would have created precedent after five similar judgments. In the debate over the relative impact of historical context versus legal autonomy, the former seems to have had the edge here. The administrative record seen in the Sinaloa documents reinforced the judicial approach with another decision-making level—one more flexible in addressing local water-sharing necessities. By the mid-1950s both

⁹⁸ See *supra* text accompanying note 72. Compare REICH, *supra* note 42 (extralegal religious tolerance existed locally despite official post-revolutionary anticlericalism).

these institutions had set the stage for Mexico's current emphasis on food production for export, along with its consequences of water distribution inequities and environmental degradation.⁹⁹

Additional research, particularly in manuscript case files, could unearth specific regional factors and disputes at play but not obvious from the published judgments.¹⁰⁰ As well, useful comparisons might be made to the relationship between water and food in agrarian reform elsewhere, particularly in twentieth-century Latin America. For example, Colombia beginning in the 1930s and Peru from 1969 onward pursued land expropriation, taxation, and settlement programs which included government efforts to ensure water access.¹⁰¹ Finally, examining the effects of climate change on different Latin American ecosystems may illustrate the future importance of water supplies to agriculture as temperatures rise and droughts become more frequent.¹⁰²

⁹⁹ See generally CHRISTIAN ZLOLNISKI, *MADE IN BAJA: THE LIVES OF FARMWORKERS AND GROWERS BEHIND MEXICO'S TRANSNATIONAL AGRICULTURAL BOOM* (2019) (discussing the contemporary agricultural economy of the Northwest, dominated by large agribusiness).

¹⁰⁰ The Archivo Central Histórico de la Suprema Corte de Justicia de la Nación holds these records. For examples of research based in part on this material, see Kif Augustine-Adams, *Por un solo voto: Quong Fat y el amparo de personas de origen chino ante la Suprema Corte de Justicia de la Nación, de 1917 a 1932. Los casos de la Ley de trabajo y prevision social del Estado de Sonora*, in ESTUDIOS SOBRE LA SUPREMA CORTE DE JUSTICIA, *supra* note 2, at 53; María José García Gómez, *Seguridad jurídica y pequeña propiedad en los amparos revisados por la Suprema Corte de Justicia de la Nación (1870-1976)*, in EL MUNDO DE DERECHO: APROXIMACIONES A LA CULTURA JURÍDICA NOVOHISPANA Y MEXICANA (SIGLOS XIX Y XX) 415 (Jaime Del Arrenal & Elisa Speckman Guerra eds., 2009); JAMES, *supra* note 42; SUÁREZ-POTTS, *supra* note 42.

¹⁰¹ Both nations built massive hydraulic infrastructure projects for irrigation and power generation. See ALBERT O. HIRSCHMAN, *JOURNEYS TOWARD PROGRESS: STUDIES OF ECONOMIC POLICY-MAKING IN LATIN AMERICA* 135-38 (W.W. Norton & Co. 1973) (1963) (Cauca Valley, Colombia); DAVID W. GUILLET, *COVERING GROUND: COMMUNAL WATER MANAGEMENT AND THE STATE IN THE PERUVIAN HIGHLANDS* 99-116 (1992) (Colca Valley, Peru). Note political economist Albert O. Hirschman's caveat that not all river valley development schemes can be easily compared, due to factors unique to each situation, such as available raw materials and market demand. ALBERT O. HIRSCHMAN, *DEVELOPMENT PROJECTS OBSERVED* 19, 182 (Brookings Institution Press 1995) (1967). See also Peter L. Reich, *Comparative Latin American and United States Water Law*, in RESEARCH HANDBOOK IN COMPARATIVE ENVIRONMENTAL LAW (forthcoming, 2023) (tracing ideological trends in seven Latin American countries' water jurisprudence).

¹⁰² See WATER FOR FOOD SECURITY AND WELL-BEING IN LATIN AMERICA AND THE CARIBBEAN: SOCIAL AND ENVIRONMENTAL IMPLICATIONS FOR A GLOBALIZED ECONOMY 49 (Bárbara A. Willaarts et al. eds., 2014) (mapping observed and expected climate change impacts).

Beyond the region, evaluating other nations' water and food policy trajectories may reveal commonalities with, or differences from Mexico. The Platform of Chinese Land Law, adopted by the Communist government in 1949, distributed land yet retained much water ownership, so analyzing legal cases could show how this principle worked in practice.¹⁰³ Algeria's agrarian reform of the 1970s transferred water rights to some communities, but an increased emphasis on export production in the latter part of the decade raises the question whether its judiciary enabled this shift as did Mexican courts.¹⁰⁴ Post-revolutionary Mexico made the relationship between water and food into an explicit connection between water law and food law. Whether its experience proves paradigmatic for other parts of the world awaits further investigation.

¹⁰³ See Li Ping, et al., *Land reform and tenure security in China: History and current challenges*, in LEGALISING LAND RIGHTS, *supra* note 37, at 409, 411-12 (rural residents received land but irrigation projects and lakes were state-owned).

¹⁰⁴ See KAREN PFEIFER, AGRARIAN REFORM UNDER STATE CAPITALISM IN ALGERIA 11-12, 186, 190, 209, 238 (1985) (water shortages and ownership concentration increased pressure on family farms to reduce basic food production in favor of export commodities).