



COUNTRY FACT SHEET ON FOOD AND AGRICULTURE POLICY TRENDS

Socio-economic context and role of agriculture

Mexico is an upper middle-income country and the second largest economy in Latin America, characterized by its large rural territory and population. The economy continues to expand at a moderate annual growth rate of 2.07 percent from 2007, and the country was able to overcome the 2008/09 financial recession through counter-cyclical fiscal and monetary policies.

Mexico has achieved the Millennium Developing Goal of halving, between 1990 and 2015, the proportion of people living below the poverty line of US\$1.25 a day (MDG 1). However, poverty is still widespread in the country, and the percentage of the population living below the national poverty line stood at a worrying 46.2 percent in 2014, a slight increase from 45.5 percent in 2012.¹ Inequality is also high, particularly among rural and indigenous populations.

Selected indicators		2007	2011	2015	
SOCIO-ECONOMIC	GDP (current billion US\$) *	1 043	1 169	1 294 (2014)	
	GDP per capita (current US\$) *	9 219	9 715	10 325 (2014)	
	Agricultural value added (% of GDP) *	3.3	3.2	3.3	
	Agricultural value added (annual % growth) *	(average 2007-2014)	1.6		
		(2015)	3.7		
	Total population (thousand)	113 139	120 365	127 017	
	Rural population (% of total)	23.1	21.7	20.4	
	Agricultural labour force (% of total labour force)	14	13	13 (2013)	
Human Development Index **	(2015)	0.756 (ranking 74)			
AGRICULTURAL PRODUCTION & TRADE	Per capita cultivated land (ha)	0.23	0.21 (2012)	0.20 (2013)	
	Area equipped for irrigation (ha)	6 500 000 (2013)			
	Value of total agriculture (current million US\$)	39 006	46 314	51 385 (2013)	
	Value of cereals production (current million US\$)	7 224	8 866	8 603 (2013)	
	Yield for cereals (hg/ha)	33 528	32 399	35 818 (2014)	
	Cereal import dependency ratio (%)	(2007-2009)	30.20		
		(2009-2011)	30.70		
	Top 3 commodities	Production quantity	Sugar Cane; Maize; Milk, whole fresh cow (2012)		
		Production value	Meat indigenous, cattle; Meat indigenous, chicken; Milk, whole fresh cow (2012)		
		Import quantity	Sugar Refined; Wheat; Chicken meat (2011)		
		Import value	Sugar Refined; Chicken meat; Wheat (2011)		
		Export quantity	Cocoa beans; Sugar Refined; Cashew nuts, with shell (2011)		
Export value		Cocoa beans; Cocoa Butter; Cashew nuts, with shell (2011)			
Top 3 trade partners	Import value	United States of America; Canada; Chile (2011)			
	Export value	United States of America; Canada; Japan (2011)			
FOOD SECURITY & NUTRITION	Top 3 commodities available for consumption	Maize and products; Sugar (Raw Equivalent); Wheat and products (2011)			
	Dietary energy supply (kcal/capita/day)	3 101	3 028	3 072 (2013)	
	General (g) and Food (f) CPI (2000=100)	137 (g), 142.6 (f)	163.3 (g), 182.9 (f)	183.6 (g), 217.4 (f) (2014)	
	People undernourished (million)	(2008-2010)	5.9 (2004-2006)		
		(2011-2013)	NA		
	Prevalence of undernourishment (percent)	(2008-2010)	<5		
		(2011-2013)	<5		
	Prevalence of underweight among children under 5 years of age (%)	3.4 (2006)	2.8 (2012)	NA	
	Prevalence of stunting among children under 5 years of age (%)	15.5 (2006)	13.6 (2012)	NA	
	Prevalence of wasting among children under 5 years of age (%)	2 (2006)	1.6 (2012)	NA	
Global Hunger Index ^	(2015)	7.3 (low)			
Access to improved water sources (% of population) *	93	95	96		

Source: FAOSTAT; *Source: WB; **Source: UNDP; ^ Source: IFPRI (accessed on 2 June 2016)

1 Because it applies a multidimensional measurement of poverty, the poverty threshold in Mexico is tighter than in other countries. Source: Ministry of Social Development (see www.sedesol.gob.mx/work/models/SEDESOL/PDF/3ER_INFORME_SEDESOL_web.pdf).

Agriculture remains a very important sector of the economy, despite its declining contribution to GDP (only 3.3 percent in 2014,² half the level of two decades ago). As of 2015, 13.3 percent of the workers in the country were engaged in agricultural activities.

Mexico is a major agricultural producer: it is the first global producer of avocados, lemons and limes; third and fourth for grapefruit and maize; fifth for beans, coconut oil, oranges and poultry; and sixth for sugar.³ However, the country is a net food importer of basic products, such as yellow maize, rice, oilseeds and wheat.

Modern farms, which are highly technological and integrated in world markets, oppose small-scale and subsistence farmers, which

constitute the majority and are mostly marginalized and food-insecure. Eradicating poverty is undoubtedly a national priority and agricultural and rural development can play an important role towards this achievement.

Smallholder agriculture faces persistent constraints, such as low competition leading to low productivity and high levels of informal labour. Half of the country's territory is held by communal land ownership (*ejidos*), which constrains the sale of agricultural land, despite reforms (see final section). The government has embarked on reforms in recent years to raise agricultural productivity and promote investments in the sector, which are highlighted below.

1. Government objectives in agriculture and food and nutrition security

In late 2012, the newly elected government embarked on a bold package of structural reform, under the name **Pacto por México**, to improve economic conditions, boost growth and reduce informality. Not all of the reforms were new, but the *Pacto* was unique in bringing the three largest parties together to agree on a single package of specific reforms encompassing competition, education, energy, the financial sector, labour, infrastructure, agriculture and support for producers, among others.⁴

The **National Development Plan (NDP) 2013–2018** is the multisectoral programming framework that identifies the national objectives, strategies and priorities for comprehensive and sustainable development in the country.⁵ The overall objective is to lead Mexico to realize its maximum potential. The plan envisages expanding basic services such as potable water, sewage, electricity, social security, education, food and shelter. It also aims at promoting free trade and free movement of capital, as well as a better country image in terms of economy, tourism and culture, in order to bolster Mexico's global presence.

During the same time frame, the **Sectoral Programme for Agricultural, Fisheries and Food Development 2013–2018** has been developed to identify the specific targets and actions related to the sector. Its main goals are to increase productivity, competitiveness, sustainability, equity, and to ensure food security nationwide. Specific targets are: to increase domestic production

participation from 58 percent in 2011 to 75 percent in 2018 for the main grains and oilseeds (rice, dry beans, corn, wheat, soybeans and sorghum); to achieve GDP growth in the agricultural and fisheries sectors reaching 3 percent per year over the next six years; and to achieve balance between the value of imports and exports in the agrifood trade sector. The intention is to enable Mexico to reach its full potential in the agrifood sector.

The basic guidelines and policy instruments in the social sector for ensuring the full enjoyment of social rights by the population in poverty are reflected in the **Social Sector Development Programme 2013–2018 (PSDS)**.

In January 2013, the government launched the **National Crusade Against Hunger (*Sin Hambre*)**, an ambitious social inclusion strategy aimed at guaranteeing not only access to food but also to health services, education and housing services for the population experiencing both extreme poverty and food insecurity (about 7.4 million beneficiaries in 1 012 municipalities across the country). The five main objectives of the crusade are to eliminate hunger in extremely poor communities, eradicate acute malnutrition in children, reduce food losses after harvesting, increase both food production and farmers' incomes, and promote community participation in achieving these objectives. In April 2014, the National Programme Mexico *Sin Hambre* 2014–2018 was launched to implement the strategy.⁶

2 If agro-industrial production is considered, the sectoral contribution to GDP of Mexico doubles, exceeding 9 percent. Source: https://coin.fao.org/cms/world/mexico/InformacionSobreElPais/agricultura_y_des_rural.html.

3 See http://unctad.org/en/PublicationsLibrary/ditctncd2012d2_rev1_en.pdf.

4 The *Pacto* envisaged a "reform of the farm" as well, but this didn't prosper, despite there having been a large public debate.

5 The plan is based on five pillars: Mexico in Peace; Mexico Inclusive; Mexico Prosperous; Mexico with Quality Education; and Mexico with Global Responsibility. The pillar "Mexico Inclusive" covers food issues and provides indicators for measuring food insecurity.

6 See www.gob.mx/cms/uploads/attachment/file/65660/Resultados_Intermedios_de_la_Cruzada.pdf.

2. Trends in key policy decisions (2007-2016)

2.1 Producer-oriented policy decisions

Although in the 1990s Mexico underwent a series of neo-liberalization reforms, the country maintains several incentive programmes for agriculture and fisheries. During the review period, and under the guidance of the Pacto por México and other sectoral plans, the government has embarked on a series of reforms to promote greater productivity and improve resource allocation by reducing the most distortive interventions; however, market price support and output-based payments still account for a large amount of the support given to producers.⁷

Restructuring of the major subsidy programme

Since 1994, the Direct Farm Support Programme (PROCAMPO) has been the largest production support programme of the government, transferring direct payments/subsidies to farmers for each cultivated hectare, and replacing the previous system of price guarantee schemes for grains and oilseeds. It was introduced initially for a period of 15 years as a mechanism to compensate domestic grain and oilseed producers after the initiation of the North America Free Trade Agreement (NAFTA). The objective of the programme was to improve the well-being of farmers by increasing and stabilizing their income, and indirectly to support productive investments in line with the NDP. In 2014, the programme was widely reformed and renamed *PROAGRO Productivo* (Productive PROAGRO) in order to reduce distortions and improve its effectiveness. Under the new programme, growers are eligible to receive subsidies based on actual production (and not just for land size, as it was previously), and the maximum subsidy amount per grower cannot exceed Mex\$100 000 (approximately US\$7 750) per crop cycle.⁸ The programme accounts for more than 20 percent of the total budget of the Secretariat of Agriculture, Livestock, Rural Development, Fishery and Food (SAGARPA), and has the highest funding (approximately US\$1 billion per year) of any public agriculture support programme in the country.

Expanding agricultural insurance

Agricultural insurance in Mexico is among the most developed in Latin America and the Caribbean, with one of the highest rates of penetration in the region.⁹ The first public agricultural insurance programme dates back to 1942, which was followed by the creation of the National Crop and Livestock Insurance Company (ANAGSA) in 1961. Due to financial inefficiencies,

the system was reformed in 1991 and the company replaced by Agroasemex (the current parastatal agricultural insurer) and other mutual insurance funds (*fondos*). Given the drastic impacts of natural disasters on agriculture in the country, and the fact that vulnerable small farmers were excluded in most cases from commercial agriculture, in 2003 the government launched the Component for the Attention of Natural Disasters (CADENA) Programme, providing a minimum level of compensation to small farmers after major catastrophic events. Its main component is the Catastrophe Agricultural Insurance (SAC) Programme for farmers, livestock producers, aquaculture farmers and fisherfolk. Under the CADENA-SAC Programme, the state is the insured, and premiums are financed by federal and state governments. Subsidies cover about 75–90 percent of the premium costs, with higher subsidies in areas that are more marginalized. The CADENA coverage has increased exponentially over the years (31 out of 32 states are currently programme subscribers, and criteria for eligible farmers were expanded in 2013), as have budget allocations, which grew from US\$8.4 million in 2003 to US\$303.8 million in 2013. The area covered by the programme increased from 100 000 hectares in 2003 to 12 million hectares in 2013, representing approximately 71 percent of the area estimated to belong to low-income producers.¹⁰ According to evaluations, the programme has proved effective in reaching the most vulnerable farmers.¹¹

Reforming government market interventions and price support

Since 2003, the programme *Incentivo Complementario al Ingreso Objetivo* (Target Income Programme) has guaranteed a minimum income to small- and medium-scale grain and oilseed farmers, paying them the difference between a predetermined income (called the “target income”) and the market price recognized by the Agricultural Marketing Support and Services Agency (ASERCA). If the market prices of grains and oilseeds suffer a decline, adjustments are made to ensure their profitability. The entity, which is part of SAGARPA, is a decentralized administrative unit responsible for supporting the development of agricultural commercialization. ASERCA was created in 1991, replacing the previous entity CONASUPO in charge of government purchases at fixed prices, in order to better reflect Mexico’s agricultural trade liberalization process. The government no longer purchased grains and oilseeds, but a “marketing payment” was given to small

7 WTO, *Trade Policy Review: Mexico*, 2013 (available at www.wto.org/english/tratop_e/tpr_e/s279_e.pdf).

8 See http://gain.fas.usda.gov/Recent%20GAIN%20Publications/PROCAMPO%202013%20Subsidy%20Program%20Changes_Mexico_Mexico_2-14-2013.pdf.

9 The level of agriculture insurance penetration in the country was 0.38 percent of agricultural GDP in 2007, compared with an average of 1.36 percent in OECD countries. Source: www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/05/20/000442464_20140520121505/Rendered/PDF/880970BRIOP1300ance04Pager00overview.pdf.

10 See <http://coin.fao.org/coin-static/cms/media/20/13954329605800/cadena.pdf>.

11 See www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/05/20/000442464_20140520132015/Rendered/PDF/881000BRIOP1300urance04Pager0Cadena.pdf.

and medium producers. Marketing support was initially limited to states with a history of production surpluses, but in 2003 the coverage was extended to producers with surplus production, therefore nationally, and to all grains and oilseeds. In addition to the Target Income Programme, ASERCA manages other producers' support measures, such as the "Direct Producer Support Programme for Surplus Marketing for Productive Reconversion, Integration of Agrifood Chains and Attention to Critical Factors",¹² which provides price hedging and technical assistance for market integration and risk management. Overall, marketing programmes operated by ASERCA accounted for Mex\$6.5 billion (over US\$ 500 million) in 2005, or 14 percent of its total budget.

and potential beneficiaries of existing social programmes, and on the benefits they receive as well.¹³ The main programmes are listed below.

Enhancement of Prospera conditional cash transfer (CCT) programme

In 1997, Mexico became the first country to introduce a conditional cash transfer (CCT) programme, thus setting a model for similar programmes replicated worldwide. *Prospera* (renamed in 2014, formerly *Oportunidades*) is the main national social protection initiative; it provides monthly cash transfers and nutritional assistance to poor families, contingent upon children's school attendance and regular health checks. The initiative has been reformed to better coordinate the different elements of the wide-ranging social programme: education, health, nutrition, income generation, and access to social rights. Along these lines, in recent years the programme has incorporated new monetary transfers such as energy subsidies, transfers to the elderly, and food assistance in order to alleviate the crisis caused by the rise in international food prices. To enhance coordination, in 2010 *Prospera* initiated the management of the Food Support Programme (PAL),¹⁴ which provides direct cash transfers and food supplements to those not eligible for *Prospera*, in line with the *Sin Hambre* Strategy. As of 2015, *Prospera* had benefited almost 26 million people (21 percent of the population), and it is the second largest CCT programme in the world, after Brazil.¹⁵ The evidence suggests that *Prospera/Oportunidades* increases beneficiary households' participation in agricultural activities, by promoting the acquisition of livestock and the purchase of inputs.¹⁶ By receiving the transfers, smallholders are also encouraged to produce food for home consumption; in fact, *Prospera* has also developed pilot projects to promote productive activities among its beneficiaries. For 2016, the proposed budget for the programme is Mex\$82 billion (over US\$4.5 billion), representing a 15 percent increase from the previous year.

Improving nutrition by refining school feeding

Mexico has a long tradition of school feeding programmes, which have been in place since 1929. School feeding is implemented throughout the country through two modalities: school breakfast (consisting mainly of a glass of milk along with cereal and fruit) and school feeding (which adds a warm dish with vegetables and food of animal origin).¹⁷ The objective of such programmes

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Approximately half of Mexico's agricultural land is held by communal farms, called *ejidos*, in which plots are governed by a collective management regime following the Mexican revolution. To curb isolation and poverty of such plots, a reform in the 1990s allowed introduction of private ownership, however administrative complexity and political factors undermine this process.

2.2 Consumer-oriented policy decisions

Social protection programmes have increased in the country during the review period, as has their integrated and coordinated management. In order to enhance quality of information and identify duplication in services, in 2013 the Ministry of Social Development (SEDESOL) started to develop a unified social information system that would capture information on current

12 Programa de Apoyos Directos al Productor por Excedentes de Comercialización para Reconversión Productiva, Integración de Cadenas Agroalimentarias y Atención a Factores Críticos (available at www.sagarpa.gob.mx/programas2/evaluacionesExternas/Paginas/APOYOSDIRECTOS.aspx).

13 This system, called Focalization System for Development (*Sistema de Focalización para el Desarrollo*), has great potential to match different social and productive programmes to the same target population.

14 The Food Support Programme was previously operated by DICONSA.

15 World Bank, *The State of Social Safety Nets 2015* (available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/10/29/090224b083179357/3_0/Rendered/PDF/The0state0of0social0safety0nets02015.pdf).

16 Ibid.

17 Four different food programmes are in place in the country: school breakfast; care for children at risk under 5 not at school; food assistance to vulnerable people; food aid to families in distress. These four programmes compose the Integral Strategy for Food Social Assistance (EIASA), which aims to "contribute to improving the quality of life of recipients of social assistance who have poor nutrition or are at risk, through the delivery of support food, dietary guidance activities and community development". Source: www.dif.gob.mx/diftransparencia/media/DGADC-InformeResult-ProgrsAlim-Ene-Dic09.pdf.

is to improve the nutritional status and education of vulnerable children, while keeping them in school. As of 2011, school feeding was benefitting 6.1 million children, approximately a quarter of those enrolled in school. The government has gradually adjusted these programmes to better respond to new health challenges, and in 2007 the focus of school feeding programmes was refined to address the double burden of overweight and undernutrition affecting the country.¹⁸ New nutrition standards were issued regarding the content of the meals, restricting sugar and fat content. Nutrition education was also introduced for both children and parents (who volunteer in meal preparation). In addition, in 2013 the government launched the National Strategy for Prevention and Control of Overweight, Obesity and Diabetes, seeking to reduce chronic and non-communicable diseases and based on three pillars: public health, medical attention, and fiscal and regulatory policies. The country has been a pioneer in this regard, introducing in 2013 a 10 percent tax on sugary drinks and an 8 percent tax on “junk food”, together with new regulations on food advertising and labelling.¹⁹ Along these lines, the “Programme for the promotion of consumption and distribution of fishery and aquaculture products” was also adopted in 2015.

Enhancing and integrating various food assistance programmes

Since 1972, the government has owned and operated a chain of over 27 000 stores (from 1 500 initially) throughout the country called DICONSA, which provide basic food and other essential goods at subsidized prices to the marginal rural and urban population, reaching over 47 million people. These stores are supplied by a network of central and regional warehouses and several thousand delivery trucks in order to reach even the most remote areas. In recent years, in the framework of the government’s social policy, the DICONSA programme has been integrated with other food assistance programmes. Since 2007, it has managed the *Programa de Abasto Rural* (Rural Supply Programme), procuring food at minimum fixed prices from small farmers (see the *Incentivo Complementario al Ingreso Objetivo* programme above) for the supply of national soup kitchens nationwide. The objective is to strengthen food security for the most vulnerable population, in line with the *Sin Hambre* Strategy. As of 2016, a total of 4 937 soup kitchens operated by SEDESOL have been supplied, benefitting 592 440 people daily with two healthy, varied and adequate meals.²⁰ Furthermore, in

2008 the government (with support from donors) launched a pilot programme to provide cash transfers and savings accounts through DICONSA stores. DICONSA has also assisted in the distribution of 734 000 new *Sin Hambre* Cards to beneficiaries of the Food Supply Programme, allowing families to purchase 19 high-nutrition food products in DICONSA stores.²¹ Similarly to DICONSA, the programme LICONSA (Social Milk Supply) has been providing subsidized fortified milk to over 8 million vulnerable beneficiaries across the country since 1995.²²

2.3 Trade-oriented and macroeconomic policy decisions

The country continues to pursue an open trade policy initiated in the 1990s. During the review period, Mexico made several efforts to reduce its trade dependence on the United States of America, with the aim of gaining a larger role in international markets and engaging in trade with other countries, especially in Asia and Europe. As a result, Mexico is one of the countries in Latin America with the largest number of trade agreements.

Increasing international trade agreements and export support programmes

As priority areas identified by the National Development Plan, Mexico increased foreign trade and investments during the review period by strengthening existing trade agreements, establishing new ones, and promoting national trade overall. The country expanded its broad network of free trade agreements (FTAs), totalling 12 FTAs in force with 46 countries as of 2016.²³ In 2012, Mexico signed the Pacific Alliance (PA), a regional integration initiative with Chile, Colombia and Peru that promotes growth, development and competitiveness through economic and trade integration among member countries (with an emphasis on the Asia-Pacific region). In February 2016, the country signed the Trans-Pacific Partnership (TPP) agreement with 11 other Pacific Rim countries, which aims to “promote economic growth; support the creation and retention of jobs; enhance innovation, productivity and competitiveness; raise living standards; reduce poverty; and promote transparency, good governance, and enhanced labour and environmental protections”, by reducing tariffs and other trade barriers, among other measures.²⁴ In July 2007, to promote foreign direct investment and exports as a means to achieve economic and social development, the government created ProMéxico, a public entity in charge of the internationalization of Mexican companies and the attraction of foreign investments.

18 Mexico has the second highest rate of obesity and overweight among adults worldwide, increasing steadily since 2008 and affecting 70 percent of the adult population as of 2012. One-third of all children are overweight. At the same time, stunting affects 13.6 percent of children under 5 years of age, and 23.3 percent suffer from chronic anaemia. Source: <http://documents.wfp.org/stellent/groups/public/documents/research/wfp273803.pdf>.

19 See http://promocion.salud.gob.mx/dgps/descargas1/estrategia/SIntesis_Ejecutiva.pdf.

20 See www.diconsa.gob.mx/index.php/sala-de-prensa/comunicados/831-diconsa-surte-4-mil-937-comedores-comunitarios-operados-por-la-sedesol-.html.

21 See www.diconsa.gob.mx/index.php/conoce-diconsa/ique-hacemos.html.

22 See www.sedesol.gob.mx/work/models/SEDESOL/Transparencia/TransparenciaFocalizada/Programas_Sociales/pdf/liconsa.pdf.

23 For the complete list of Mexico’s trade agreements, visit www.gob.mx/se/acciones-y-programas/comercio-exterior-paises-con-tratados-y-acuerdos-firmados-con-mexico.

24 See <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text>.

Ad hoc tariff reductions and zero-rate tariff quotas to reduce consumer prices after crises

The country has adopted very few restrictive trade measures during the review period, with no export or import bans on agricultural products registered to protect domestic consumers or producers (other than a ban on agricultural products from the United States of America in response to restrictive measures from them in 2011)²⁵. In May 2008, as a response to the international food price crisis, the government lifted import tariffs on several staples and fertilizers in order to lower prices for consumers. In addition, zero-rate tariff quotas were allowed throughout the review period for maize, beans, sugar and other staples, for the same purpose or in response to droughts and other shocks. Once the food price crisis ended, tariffs were restored by the government: in December 2013, tariffs on maize, sorghum, lemons and tomatoes were restored to their original levels (up to 20 percent) to encourage national production. Along the same lines, in January 2015 tariffs on rice were restored to their original levels (after six years of

no tariffs), as international prices were no longer high and rice imports from Asia were registering significant increases.

Digitization of phytosanitary certificates to ease exports

In July 2011, with the objective of simplifying more than two million transactions made annually in the country for various food products, the National Health, Food Safety and Quality Service (SENASICA) began the process of simplifying the regulatory framework for issuing Phytosanitary and Zoosanitary Certificates for National Mobilization. In its pilot phase, SENASICA implemented automated and digital processes for issuing Zoosanitary Certificates for Mobilization (CZM), with an initial 70 000 certificates issued electronically. With the implementation of the system, the Ministry of Economy estimated efficiency gains of around US\$77 million deriving from the mere transition from paper to electronic means. Additionally, the new process allows SAGARPA to respond timely to health emergencies related to regulated products.

3. Emerging issues

Improving environmental policies...

In the past decade environmental sustainability has been high on the political agenda, given the high vulnerability of the country to climate change; the issue was one of the pillars of the 2007–2012 and 2013–2018 National Development Plans. Environmental challenges include soil erosion and salinization, overexploitation of aquifers, contamination of freshwater bodies, greenhouse gas emissions, and ecosystem damage. Budget resources for the sector have been increased, and environmental institutions and regulatory frameworks have been strengthened. In 2012, the government passed the ambitious General Law on Climate Change, becoming the second country after the United Kingdom of Great Britain and Northern Ireland to set a regulatory framework that addresses climate change comprehensively through a multisectoral approach. The law establishes the National Institute of Ecology and Climate Change in charge of periodic checks and a National Emissions Registry. The law mandates that the deforestation rate be equal to zero by 2018 and that incentives be provided to improve the living conditions of the 12 million people living in forested areas. In addition, the law sets the target to reduce its gas emissions by 50 percent from 2000 levels by 2050 (contingent on international financial support), and also stipulates that by 2024, 35 percent of the country's electricity must come from renewable sources. The law does not include concrete political instruments, but these are expressed in the 2nd Special Programme on Climate Change (PECC 2014–2018) published in 2014, which includes the most

relevant mitigation measures to be implemented by 2018. The programme summarizes 23 quantified mitigation measures that can lead to a reduction in emissions.²⁶ However, the continued subsidy of energy in the country could weaken this process (see below).

...But needing to reform indirect subsidies for greater efficiency and targeting

In Mexico, there are still several subsidies on energy (indirect) and water (direct) for both production and consumption. Since 2002, with the objective of providing a stimulus to the agricultural sector, there has been a 60 percent subsidy of electricity used for pumping irrigation water – for all users regardless of their scale or income. Analyses have demonstrated that the artificial low price of water has led to its overexploitation and low-efficiency use, threatening the traditional agricultural ecosystem and biodiversity. The adoption of irrigation technologies in rainfed land has not increased in the last 40 years, and existing infrastructure has deteriorated, generating usage inefficiencies.²⁷ In addition, the use of electricity in agriculture has increased (mainly from non-renewable sources), whereas investments in modern irrigation technologies that reduce the use of water are low. Further, these subsidies mostly benefit large-scale farmers, who use water more intensively for their large farms (indeed 80 percent of such electricity subsidies go to farmers in the highest quintile).²⁸

25 The measure was in response to the United States decision to block Mexican trucks in 2011.

26 See www.semarnat.gob.mx/sites/default/files/documentos/transparencia/programa_especial_de_cambio_climatico_2014-2018.pdf; <http://climateactiontracker.org/countries/mexico.html>; www.comoves.unam.mx/assets/revista/163/rafagas_163.pdf.

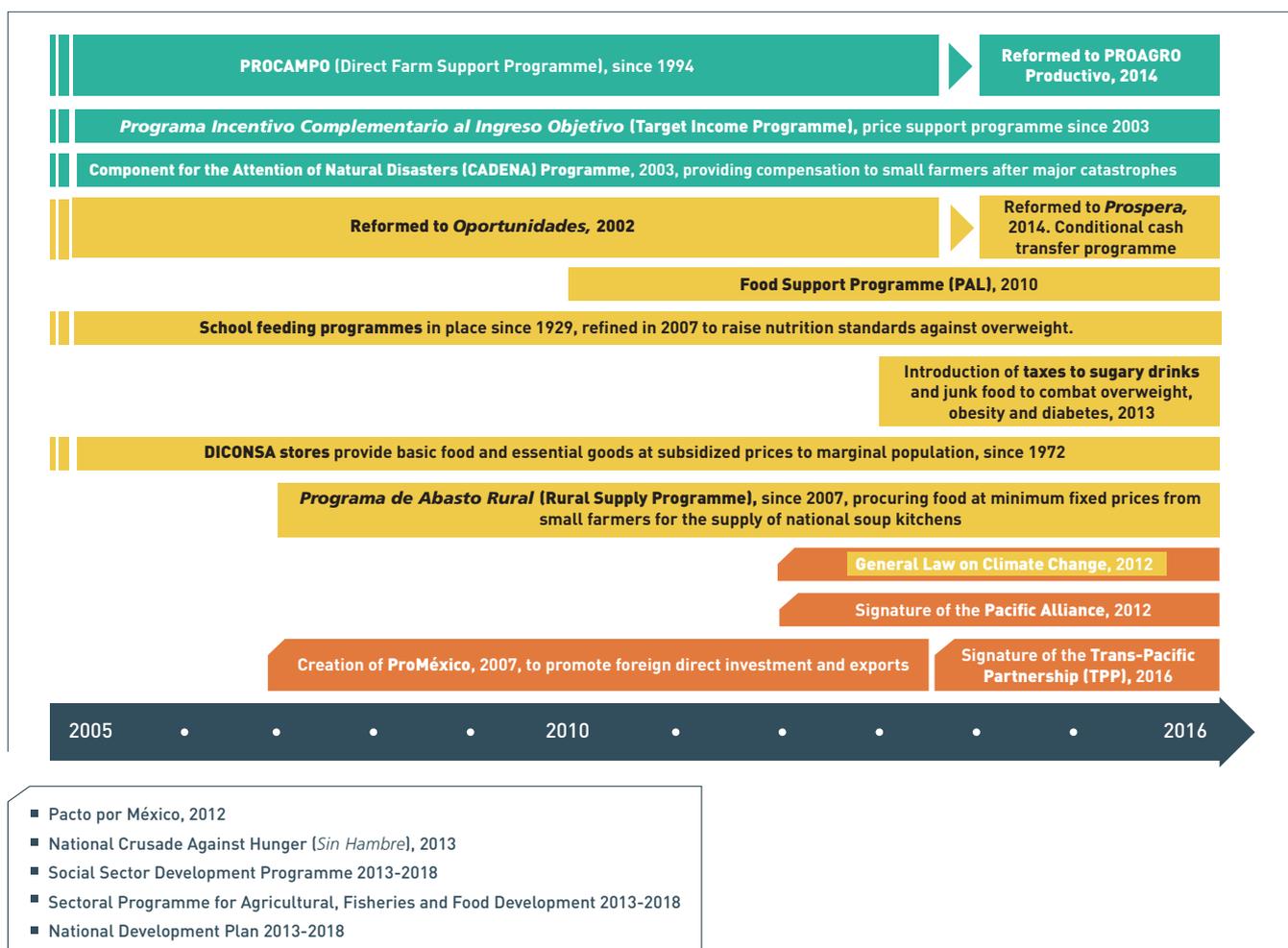
27 See <https://cgispace.cgiar.org/bitstream/handle/10568/49671/CSA-in-Mexico.pdf>.

Land system (ejidos) constraints

Approximately half of Mexico's agricultural land is held by communal farms, called *ejidos*, in which collective land and land plots granted to individuals are governed by a collective management regime. This system was set by the first agrarian reform following a peasant revolution of the country in 1920, when large private land holdings were redistributed to peasant cooperative groups. However, such reform failed to improve the well-being of peasant communities and the rural sector further deteriorated, increasing the number and isolation of *minifundios* ("smallholdings") that were facing extreme poverty. Thus, in 1992 the country underwent a second reform, aimed at providing guidance and stimulus to rural development and at combating the poverty, backwardness and marginalization of most smallholders.

The reform was a reversal of the previous approach, which gave the state the power to plan and manage production in rural areas. The nation ceased to be the legal owner of the social land, and its ownership passed to the *ejidos*, allowing private ownership from its members. The new system also allowed land compaction according to the will of the *ejidatarios* and their assemblies. Nevertheless, the reform maintained the system of *ejidos* and had limited practical impact, with only 2.5 percent of the land being privatized over two decades.²⁹ Administrative complexity and political factors undermine the privatization process, and analyses suggest that a simplification of the land certification and transfer process is needed.³⁰

MAIN RECENT STRATEGIES AND POLICIES RELATED TO AGRICULTURE AND FOOD SECURITY AND NUTRITION (FSN)



28 See www.oecd.org/env/country-reviews/EPR%20Highlights%20MEXICO%202013%20colour%20figures.pdf.

29 OECD, *Agricultural Policy Monitoring and Evaluation 2015* (available at www.oecd.org/eco/surveys/Mexico-Overview-2015.pdf).

30 Ibid.