
Using a “traffic light” system, the timeline shows the reader our assessment of the impact of policy actions at a specific time and in a specific context. The impact refers to a country's progress (or regression) within and between the phases of agricultural transformation. Green means the policy action had a positive impact, yellow is an ambiguous impact and red is a negative impact. The traffic light approach is not intended to provide a normative judgment of the policy itself, since the impact of a policy depends on where, when and how it is implemented. Policy actions are organized into four categories: public investments, price interventions, macroeconomic policies and institutional reforms. The assessment is based on quantitative data and over 250 sources of literature. "Find out more" links will take you to a reference for the policy event. To learn more about this project, visit https://iisd.org/agricultural-transformation/

INSTITUTIONAL REFORMS

Land and Labour Reform
1969 - 1977

The agrarian reforms of 1969 redistributed 9.5 million hectares from large landholders to families, often in the form of cooperatives. However, land could not be used as collateral, and could not be transferred, and these restrictions reduced the efficiency of land use (World Bank, 1992).

Agriculture as a Contributor to Growth
1970 - 2008

PUBLIC INVESTMENTS

R&D and Extension Services
1970 - 1978

The success of the research and extension system was compromised by regular reorganizations of public research agencies, redeployment of extension agents to provide support to producer groups rather than to provide traditional extension services, and a lack of resources. Public research suffered as many researchers left the country or transferred to universities, and technology transfer lagged (World Bank, 1992).
What pathway should a given country take to best chart its course through agricultural transformation? By understanding the structural context of a country, we can answer this question better. The development transition can be achieved through an emphasis on higher agricultural productivity (the push strategy, because it counts on rural areas driving growth), or through higher productivity in non-agricultural sectors (the pull strategy, because it requires growth in the non-farm economy to pull people out of agriculture); and often a mix of both. To understand the structural context of countries, we clustered countries based on three dimensions: a metric of relative land endowment (abundant/scare), a metric of land fertility (fertile/inertile), and a metric of demographic change to reflect population pressure and to differentiate trajectories based on per capital endowments (low/high birth rates).

During the 1970s, agricultural GDP grew at only 0.5 per cent annually. Rural poverty increased as agricultural production stagnated and the demand for labour fell (World Bank, 1992).
PUBLIC INVESTMENTS

**Rural Health and Education**

*1970 - 2004*

Low levels of expenditure have created problems in terms of quality and regional disparity in the Peruvian educational system. Public expenditure on education was a little higher than 3 per cent of GDP in 1970 but declined to less than 2 per cent of GDP in 1991. Spending increased to 3.2 per cent by 2004 but remained only three-quarters as much as the Latin America average of that same year. Enrolment rates for primary, secondary, and tertiary education were higher in Peru than the Latin American average from the 1970s to the early 2000s. However, there may be some tradeoff between quality and enrolment, as Peru lowered standards for school hours and teacher training in order to achieve higher levels of coverage while budgets declined (Cotlear, 2006).

PRICE INTERVENTIONS

**Price Policies and Anti-Agricultural Bias**

*1970 - 1979*

Agrarian reform in 1969 ensured that food prices remained low for urban consumers (Velazco & Pinilla, 2017). This was accomplished by a combination of wholesale and retail price controls, subsidies for agricultural imports, and a government monopoly over the import and marketing of several key commodities (World Bank, 1992). The end result was a policy environment that encouraged agricultural imports to the detriment of the domestic agricultural sector (Velazco & Pinilla, 2017).

PUBLIC INVESTMENTS

**Rural Infrastructure**

*1970 - 1980*

Public investment in agriculture increased substantially in the early 1970s, averaging an annual increase of 61.6 per cent from 1970 to 1975. Spending remained high into the early 1980s. Rural infrastructure investment in Peru up until 1980 was primarily aimed at expanding the area of land under cultivation. This was largely accomplished through irrigation projects (Velazco, 2001).
PRICE INTERVENTIONS

**Trade Policy**

**1978 - 1982**

In 1978, along with a monetary stabilization program, Peru implemented import liberalization measures, removing quantitative restrictions and reducing tariffs. Liberalization continued into the early 1980s (World Bank, 1992).

MACROECONOMIC POLICIES

**Monetary Policy and Exchange Rates**

**1978 - 1980**

In 1978, Peru devalued the sol and began a stabilization program, including a sharp reduction in the fiscal deficit (World Bank, 1992).

Moving Labour out of Agriculture

**1979 - 2007**

PUBLIC INVESTMENTS

**R&D and Extension Services**

**1979 - 1984**

Public investment in R&D was revitalized in the early 1980s with the creation of the National Institute of Agricultural Research and Promotion. The goal of the institute was to support and stabilize public research and extension. It received financial and technical support from the World Bank, the IDB and USAID. The institute was successful in revitalizing technology transfer, and it further developed research programs on rice and maize that had been kept alive through the lean years of the 1970s (World Bank, 1992).
INSTITUTIONAL REFORMS

**Land and Labour Reform**

**1980 - 1984**

New land reforms were passed in 1980 that allowed the division of cooperative lands among members, discontinued restrictions on market destinations, and removed requirements on cropping patterns (World Bank, 1992). However, land fragmentation continued, which meant that many farms were focused on subsistence production. Many farmers did not hold official title to their lands (World Bank, 2017).

PRICE INTERVENTIONS

**Price Policies and Anti-Agricultural Bias**

**1980 - 1989**

Reform efforts through the 1980s shifted from targeting one objective to another, as liberalization efforts early in the period gave way to government support and subsidization of agriculture after 1985. A new agricultural promotion law was passed in 1980. The law aimed to subject prices and marketing to market forces through a combination of trade liberalization and breaking up collectives, along with removing price controls, market destination restrictions and monopoly buying. These efforts failed, and a new government in 1985 set out to support agriculture with subsidized loans and inputs. This effort also failed (World Bank, 1992; Velazco & Pinilla, 2017).

PUBLIC INVESTMENTS

**Rural Infrastructure**

**1981 - 1991**


MACROECONOMIC POLICIES

**Monetary Policy and Exchange Rates**

**1981 - 1984**

A global recession led to increasing inflation in Peru, rising from 61 per cent in 1980 to 73 per cent in 1981, which the government attempted to combat by slowing the rate of devaluation instead of managing expenditures (World Bank, 1992).
**PUBLIC INVESTMENTS**

**R&D and Extension Services**

**1985 - 1990**

By 1985, public spending for R&D and extension services again began to decline. Extension services became detached from research as the National Institute of Agricultural Research and Promotion was replaced by the National Institute for Agricultural and Agro-industrial Research (INIAA). Fiscal restraints due to the economic crisis led to a two-thirds reduction in the extension budget. The budget of INIAA was also cut, resulting in a decline in staff levels and deterioration of research facilities, despite increased financing from USAID (World Bank, 1992).

**MACROECONOMIC POLICIES**

**Monetary Policy and Exchange Rates**

**1985 - 1990**

Beginning in 1985, the government froze the exchange and interest rates in an attempt to stimulate growth. The program had early success in fueling GDP growth, with growth of 10.8 per cent in 1986 and 9.7 per cent in 1987. However, the program also reduced international reserves and resulted in large public debt. GDP fell considerably from 1988 to 1990, with declines of 7.4 per cent, 12.4 per cent, and 2.4 per cent in 1988, 1989 and 1990 respectively. Inflation also rose sharply, ballooning to 1,722 per cent in 1988 (World Bank, 1992).

**PRICE INTERVENTIONS**

**Price Policies and Anti-Agricultural Bias**

**1990 - 1999**

Reforms in the 1990s were aimed at the removal or reduction of quantitative and tariff import restrictions, as well as the removal of price controls on food. These tax and price control policies had put a damper on the agricultural sector's profitability and growth in the 1960 to 1975 period (World Bank, 1992; Velazco & Pinilla, 2017).

**PRICE INTERVENTIONS**

**Trade Policy**

**1990 - 1999**

Following a stabilization program early in the 1990s, Peru moved further to promote agricultural exports, including tax incentives to promote agribusiness, signing a number of bilateral trade agreements, and moving to unilaterally slash tariffs and tackle non-tariff barriers (World Bank, 2017).
INSTITUTIONAL REFORMS

Credit  
1990 - 1999

The reforms of the 1990s included the abolition of the Banco Agrario, which restricted access to credit for smallholders, creating an inadequate rural credit system (Thorpe & Zevallos, 2002).

MACROECONOMIC POLICIES

Economic Diversification  
1990 - 1999

Liberalization reforms, privatization and the end of incentives for non-traditional exports, including value-added products such as copper wire and sheets (and more recently developed natural resources such as timber, fruits and vegetables) in 1990s indicated that traditional exports—primarily minerals—would be the primary economic driver. The competitive pressures brought about by the boom in the minerals trade, with no accompanying support to other industries, led to deindustrialization in Peru (Thorpe & Zevallos, 2002).

INSTITUTIONAL REFORMS

Land and Labour Reform  
1990 - 1992

Reforms in the early 1990s changed Peru’s labour market from being highly rigid to one with flexibility around pay, hours and contracts. This flexibility likely helped pull some of the extra labour supply from rural areas and made it easier for those who continued to work in agriculture to take on other work when demand for agricultural work was lower. After the reforms, average real income for agricultural workers increased, as did the levels of non-farm rural employment (Pascó-Font & Saavedra, 2001).

PUBLIC INVESTMENTS

Rural Health and Education  
1990 - 2004

In the 1990s, there was a large increase in the coverage of many public health interventions such as vaccines and care for children, which brought Peru above the Latin American average for some interventions and much nearer to average in other cases. As a result, the level of under-five mortality in Peru was on par with the Latin American average by 2004, after lagging behind since the 1970s (Cotlear, 2006).
INSTITUTIONAL REFORMS

**Land and Labour Reform**  
**1990 - 2006**

Peru began efforts toward land registration and land titling in the early 1990s. The Rural Land Titling and Registration Project was implemented in three stages from 1996 to 2019. The first two phases ran from 1996 and cost a combined USD 83 million. A significant gap followed, with the third phase not being implemented until 2015 (World Bank, 2017).

PUBLIC INVESTMENTS

**Rural Infrastructure**  
**1990 - 1999**

As with public research, the 1990s saw a decline in public spending in rural areas, falling to USD 367 million in 1999 from an average of about USD 970 million per year in the early and mid-1990s (World Bank, 2017).

PUBLIC INVESTMENTS

**R&D and Extension Services**  
**1990 - 1999**

The public research and extension system was all but dismantled during the 1990s, as the Fujimori government implemented structural reforms that included reduced public expenditure. Public spending on agricultural research declined to 0.2 per cent of agricultural GDP by 1999. The extension system was reduced from 1,400 officers in 1986 to fewer than 100 in 1992. (Perez, 2007; Hellin, 2012).

MACROECONOMIC POLICIES

**Monetary Policy and Exchange Rates**  
**1993 - 1999**

The government launched a stabilization program in the mid-1990s in an attempt to control inflation. The program included lower public expenditure, free-floating interest and exchange rates, and structural reforms including deregulation, market liberalization and privatization. The stabilization program helped the development of the export sector (Velazco & Pinilla, 2017).
Background Note on Transformation Phase

1995

The agricultural GDP growth rate in Peru took off in the 1990s, averaging 5.46 per cent annually for the decade (Velazco & Pinilla, 2017).

PUBLIC INVESTMENTS

Rural Infrastructure

1999 - 2002

Spending on rural infrastructure (including water, sanitation, electrification and roads) continued to decline up to 2002. The level of spending on roads in 2002 was 40 per cent of the 1998 level. Rural electrification investment in 2002 was one-third the level in 1998. Investment in water and sanitation declined from 1999 to 2001 before recovering to 1998 levels in 2002 (Peltier-Thiberge, 2007).

Background Note on Transformation Phase

2000 - 2014

Growth of agricultural GDP averaged 3.3 per cent annually from 2000 to 2014 (World Bank, 2017).

PRICE INTERVENTIONS

Price Policies and Anti-Agricultural Bias

2000 - 2010

Starting in 2000, Peru pursued policies aimed at connecting its regions to international markets, including through decentralization efforts designed to give regional governments more control over agricultural policies. Policy incentives aimed at the Selva and Sierra regions included tax incentives for private producers, which were introduced in the Selva in 1998 and in the Sierra in 2010. The policies were aimed at these regions as they lagged behind the more developed Costa. The incentives introduced in the Selva have been successful at attracting private investment, while the impact in the Sierra remains to be seen (Chavez & Perz, 2012, World Bank, 2017).
MACROECONOMIC POLICIES

Monetary Policy and Exchange Rates
2000 - 2015

Peru adopted a formal inflation targeting scheme in 2002 and was successful at reducing inflation to the lowest level in Latin America. The inflation target was lowered from 2.5 per cent to 2 per cent in 2007. A quick policy response from the central bank in 2008, including reducing reserve requirements, helped reduce the impact of the global recession in Peru. The central bank also reduced lending rates to prevent deterioration of the economy, and the government implemented a fiscal stimulus plan. Monetary policy was tightened in 2010, with lending rates increased, as the economy began to recover. Monetary policy in this period was largely successful in maintaining a stable macroeconomic environment (Rossini & Santos, 2015).

PUBLIC INVESTMENTS

Rural Health and Education
2000

Despite high levels of enrolment, Peru scored lower on the OECD’s Programme for International Student Assessment in 2000 than the Latin American average (Cotlear, 2006).

INSTITUTIONAL REFORMS

Credit
2000 - 2006

Access to finance remained a limiting factor for agricultural production, as the Toledo government elected in 2000 continued the policies of the previous government (Chavez & Perz, 2012).

MACROECONOMIC POLICIES

Economic Diversification
2000 - 2009

A lack of active industrial support in Peru has meant that exports have not diversified since the early 1990s. A boom in mineral prices in the 2000s reduced the share of non-traditional exports, and resulted in increased concentration of exports on limited product categories (Illescas & Felipe Jaramillo, 2011).
PUBLIC INVESTMENTS

R&D and Extension Services
2000 - 2006

The Toledo government elected in 2000 adopted a strategy of decentralizing policy implementation, including providing for more agricultural policy development and implementation to take place at the regional level. This included agricultural research and extension. From 2001, the Ministry of Agriculture set out to revitalize public R&D, implementing a decentralized system led by the National Agrarian Research Institute (Perez, 2007; Chavez & Perz, 2012).

PRICE INTERVENTIONS

Trade Policy
2000 - 2013

Trade reforms beginning in the 2000s were driven by the signing and ratification of a number of trade agreements, including the ratification of an agreement with the United States in 2009 and China in 2010 (World Bank, 2017).

PUBLIC INVESTMENTS

Rural Infrastructure
2005 - 2012

Only 40 per cent of rural households had electricity in 2006, but this increased to 70 per cent by 2012 with the success of the second phase of the Rural Electrification Program, which ran from 2005 to 2010. Of 628 electrification projects completed between 1994 and 2012, 554 were done between 2007 and 2010. Peru has increased rural access to safe drinking water from 56 per cent in 2000 to 72 per cent in 2012; however, the country remains below the Latin American and Caribbean average (Dasso, Fernandez & Nopo, 2015; WHO & UNICEF, 2014).

INSTITUTIONAL REFORMS

Land and Labour Reform
2007 - 2015

Reforms that decentralized land registration and the gap in the Rural Land Titling and Registration Project from 2006 to 2015 reduced the gains of land reform efforts. Official title to land is unevenly distributed, with 48 per cent of farmers in the agriculturally productive Costa region holding titles, 17 per cent in the Sierra highlands, and 23 per cent in the less productive Selva rainforests as of 2015. Lack of land title can make it difficult for farmers to access credit (World Bank, 2017).
PUBLIC INVESTMENTS

Rural Health and Education
2007 - 2015

Weak accountability and management for schools, and poor distribution of educational resources exacerbated education quality and regional disparities in Peru. In international tests, school outcomes in Peru were among the lowest in Latin America and below levels of comparable income countries. Peru was ranked last out of 65 countries in mathematics, reading and science in the 2012 Programme for International Student Assessment, a slight decline in ranking from 2009, when the country was listed in the bottom three in all categories. Outcomes were particularly poor in rural areas, with a 2012 Ministry of Education study finding only 7 per cent and 4 per cent of second grade students achieving “adequate” reading and mathematical skills, respectively (OECD, 2010; Castro & Rolleston, 2015).

PUBLIC INVESTMENTS

R&D and Extension Services
2007 - 2015

Research spending in Peru increased from USD 38 million in 2007 to USD 46 million in 2013, albeit remaining low at only 0.35 per cent of agricultural GDP, far below the 1 per cent level recommended by the UN (ASTI, 2017).

Agriculture Integrated into the Macro Economy
2008 - 2015

MACROECONOMIC POLICIES

Economic Diversification
2010 - 2015

The commodity price boom for much of the post-2000 period has been reflected in the continuing dominance of Peru’s mining sector, to the detriment of economic diversification as a whole. Diversification policies predicated on windfall revenues from mining have thus far not been successful (Leal et al., 2013).
References


