Post-2015 Data Test
country level experiences

Measuring the Sustainable Development Agenda in Peru

GRADE
Grupo de Análisis para el Desarrollo

Martin Benavides
Silvio Campana
Selene Cueva
Juan Leon
Alejandro Wagenman

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Acronyms and Abbreviations

CEPLAN	Centro Nacional de Planeamiento Estratégico
CPD	Centre for Policy Dialogue
GDP	gross domestic product
GPS	Global Positioning System
GRADE	Grupo de Análisis para el Desarrollo
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
INEI	National Institute of Statistics and Information Technology
MDG	Millennium Development Goal
NPSIA	Norman Paterson School of International Affairs
PENDES	Plan Estratégico Nacional para el Desarrollo Estadístico
PESEM	Plan Estratégico Sectorial Multianual
PISA	Programme for International Student Assessment
PPP	purchasing power parity
SDG	Sustainable Development Goal
UN	United Nations

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Report Highlights

In 2012, the Rio+20 United Nations Conference on Sustainable Development pledged that governments will propose a set of Sustainable Development Goals (SDGs) for the post-2015 period. The SDGs – agreed to in September 2015 – replace the Millennium Development Goals (MDGs), which expire in the same year. The SDGs take into consideration positive experiences from the MDGs and aspects that were excluded from or not achieved with the MDGs. Unlike the MDGs, the SDGs are universal in nature, applying to all countries. To contribute to ongoing discussions on the post-2015 agenda, Bangladesh's Centre for Policy Dialogue (CPD) and Canada's Norman Paterson School of International Affairs at Carleton University, in association with Southern Voice on Post-MDG International Development Goals, launched "The Post-2015 Data Test: Unpacking the Data Revolution at the Country Level," an initiative to examine how the SDGs can be applied and monitored across low-, middle- and high-income countries. The initiative includes the mapping of available data to measure post-2015 sustainable development indicators and the identification of challenges and opportunities that countries may face during the implementation of the SDGs. This report presents the key findings of the Peru case study under the initiative.

The Group for the Analysis of Development (GRADE) is the multidisciplinary research institution responsible for the Peru case study. The study includes an examination of targets and indicators for roughly 12 of the 17 candidate SDGs, grouped into seven key areas: (i) poverty, (ii) education, (iii) employment and inclusive growth, (iv) energy and infrastructure, (v) environmental sustainability and disaster resilience, (vi) governance and (vii) global partnership for sustainable development. Furthermore, this report identifies the challenges for monitoring the SDGs and their respective policy implications and recommendations for the achievement of the SDGs in Peru.

As the finalised SGD document points out, "poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development" (UN 2015). This statement is particularly relevant for the Latin American region, including Peru, since it is one of the worst-rated regions in the world in terms of inequality. Although poverty rates continue to decrease, the probability of falling back into poverty will persist if inequalities based on gender, ethnicity and territorial factors remain.

To overcome these key challenges and produce real change in the lives of people, it is necessary to focus on the ones who have been "left behind" and have the least. In Peru, minorities (e.g., women, indigenous, Afro-Peruvians) are the people who need the most attention. There is a need for more disaggregated data to better understand how these groups live and what they have, think and feel.

In this context, the report provides an analysis of SDG priorities for Peru and examines data availability for monitoring and following through on the SDGs at the country level. Furthermore, its comparative matrix of targets and indicators will be useful for policy-makers during their planning phase for implementing the SDGs at the national level. Additionally, the unpacking of the data revolution in Peru will be an excellent input that can help start the same process in other Latin American countries.

Key findings

Post-2015 Agenda in Peru

Peru's development advocates urgently need to connect more meaningfully with key constituencies through discussions about policy priorities in order to raise awareness and increase levels of engagement with development policy issues regarding the SDGs and the data revolution, with the ultimate purpose being to influence policy-makers.

Peru's achievements in terms of the MDGs have been satisfactory. Moving forward, the public sector, international organisations and academia in the country have engaged on the post-2015 agenda and associated indicators. The Peruvian government has held discussions with different sectors on the SDGs in advance of their establishment. Additionally, the United Nations System in Peru completed a national consultation process between November 2012 and March 2013. The consultations were centred on the question of what kind of future citizens want for Peru and traced an agenda for sustainable development after 2015. The consultation process was highly inclusive and included inputs from government, international organisations, non-governmental organisations, civil society organisations, the private sector and academia. As a result, a thematic agenda was proposed and key messages emerged on participatory monitoring for accountability in the post-2015 agenda.[1]

Consultations demonstrated that Peruvians consider the country to have "progressed" in recent years, but "there is much to be done" to become a developed country. Civil society values social and economic issues (i.e., education, health, employment) as priorities and has interests in strengthening governance mechanisms (e.g., the decentralisation process, ending insecurity and corruption) and protecting the environment (e.g., regulation of water resources, land management, addressing natural disaster risks and climate change). It is important to highlight the participation of civil society because it allows a voice to people who usually have no access to debates or planning the national agenda and allows them to participate in the policy making that affects their lives.

The Peru research team took into account the perspectives of stakeholders, including the government and private sector, voiced during focus group discussions and interviews as part of the research process. They viewed that policies need to be focused on: (i) gender equality, (ii) climate change, (iii) financial inclusion and (iv) industrial technical innovation for diversified production (GRADE 2014). Also, the research team selected (i) women, (ii) indigenous peoples, (iii) early aged children and (iv) young people as priority groups that need special attention in the country. The team developed specific national indicators for these themes and groups.

Taking into account the points of view of all participants in the consultation and research processes, the research team agreed that Peru needs to act on several factors during the post-2015 period: (i) reduce poverty in all its forms, (ii) improve the quality of education at all levels and education infrastructure, (iii) maintain the balance between economic growth and environmental protection, (iv) improve air and water quality, (v) ensure full access to developed infrastructure, (vi) establish a strong state and fight against corruption, (vii) improve relationships between the government, companies and communities and (viii) improve security and reduce violence in all its forms.

In this context, the SDGs emerge as particularly relevant for Peru. While the country is considered by the International Monetary Fund to be one of the most stables economies in Latin America (Vera and Wong 2013), it obtained the worst scores in international educational assessments in the last years that it

[1] For more information, see UNDG (2015).

participated – 2012, 2009 and 2000 (OECD 2014). Recognising that Peru has a lot of work to do to become developed, policy-makers are working strongly on social areas such as education, poverty and employment. Some issues recognised as relevant for society require more efforts. For example, to achieve the goal on environmental protection, it is necessary to have clear and continuous indicators and real compromise among involved actors. Discussions about policy priorities would raise awareness, increase engagement with development policy issues linked to the SDGs and data revolution and influence policy-makers' decisions.

It is important to highlight that the lack of proactive and strong leadership within government institutions makes building synergies for the post-2015 agenda difficult. Due to past experiences, it has been generally difficult for all political parties to engage in long-term policy making. Presidential elections are coming up in 2016 and the post-2015 agenda has not been mentioned in electoral platforms. Except within the National Center for Strategic Planning, a specialised technical body of the government, and civil society organisations, the SDGs have not inspired a widespread call for a data revolution in Peru.

Monitoring the Post-2015 Agenda

Peru has a trustworthy national statistical system that is generally prepared to measure progress on the post-2015 agenda. The National Institute of Statistics and Information Technology (INEI), which is Peru's national statistics office, and other government entities produce relevant, accurate and timely information. The majority of databases can be accessed by the general public. The INEI provides quarterly and annual indicators, microdata archives and systems to cross-check variables in a user-friendly way, every ministry and other government entity has a "statistics" section on its website. Therefore, data users do not have problems accessing available data. Nevertheless, data availability varies by SDG area and targets.

The SDGs bring with them two major challenges for the INEI. First, deficiency in the decentralisation process affects data producers and the poorest government entities precariously use the provided statistical information. Second, due to changes in budgeting in recent years, the need for specialised information from all sectors has increased, but the law states that the sectors are not responsible for collecting data. For that reason, the INEI is responsible for managing too much data, conducting several surveys and serving many sectors.

The indicators reported directly by the INEI generally do better in terms of data quality when compared to indicators reported by other government entities. For instance, the candidate targets and indicators under the goal areas on poverty, education and employment obtained high scores according to the data quality assessment framework used under the Post-2015 Data Test. This is because databases for these goal areas follow pre-defined quality standards, technical documents are available, a system for user consultation exists, time periods for data collection and release have been determined, data are credible and data are in agreement with user "demand" so they are relevant. However, data availability and quality for the goal areas on environment, governance and global partnership require improvement. This is due to the fact that the candidate indicators under these goal areas are calculated with administrative data, specific technologies are needed for data collection and data come from ministries not directly directed by the INEI. Because resources, expertise and efforts to collect and produce data vary from ministry to ministry, the quality of data and indicators also changes.[2]

According to a data-mapping exercise undertaken for the Peru case study, 68 percent of indicators examined in this study are calculated by the INEI or can be calculated using data that can be accessed relatively easily

[2] For instance, the Ministry of Environment was created in 2008. In 2012, the unit of the ministry in charge of statistics only had eight workers and no quality controls for information sources and coding (INEI 2013b).

through an information request to the INEI. It is important to note that one source, the National Household Survey, collects much of the data needed for the goals areas on poverty, education and employment. The situations for the rest of the indicators are mixed. Six percent can be calculated by custom tabulation of data producers because information exists but is not systematised. Ten percent of indicators are currently calculable, but data are not available for the proposed baseline year of 2010. This study did not consider using non-official sources to measure post-2015 progress given that they do not necessarily follow the same level of rigor and transparency as the INEI. However, identified non-official data sources could be used to monitor 8 percent of indicators. It is important to note that non-official sources can only be used for the country's weaker areas – energy and infrastructure, environment and governance. Further, there are three global indicators under the goal areas on energy, governance and environment that cannot be measured because data are not collected by the INEI, non-official sources or international sources.

The low level of data disaggregation is a challenge that needs to be overcome. Most of the indicators can be disaggregated by place of residence (urban and rural), region (political organisation) and age, but data disaggregation by sex (important for indicators regarding financial inclusion) and minority group (e.g., Afro-Peruvians) is important and requires more efforts if no one is to be left behind during the post-2015 period.

Political Economy Dimensions of Data in Peru

Over time, the collection of data for social indicators in Peru has changed due to various factors, such as laws, political pressure, budgets, technical difficulties and methodological innovations, among others. Since 2000, two legal reforms were enacted because the government wanted to increase efficiency, meet citizens' demands and improve accountability: the Law of Transparency and Access to Public Information and Law of Public Sector Budget that prescribe results-based budgeting. The former obliges all public administration entities to publish information on their respective websites or in journals that are widely circulated and to provide information to citizens upon request, while the latter changed the administration of the public budget with the objective being to make state social projects and programmes more efficient and equal in reducing poverty and exclusion.

In this context, some changes in INEI practices and methodologies for data collection have occurred in recent years. First, the INEI has been implementing a decentralisation plan since 2001 and its headquarters now works with decentralised offices to ensure the use of common methodologies and standardised processes. Second, the INEI began to receive support in 2007 from an external Adviser Committee to improve the methodology and collection of information in surveys that measure poverty. In 2011, the INEI started to use technologies for data collection and more data disaggregation.

Regarding the financing side, results-based budgeting anticipates the Peruvian population's central problems and conceives likely results of interventions by government entities oriented towards development and research. Attention to specific central problems is prioritised over other secondary objectives. It is stipulated that every intervention should generate a product and every product should be oriented towards a goal. Indicators are generated for the conceived results in a way that the progress of the Peruvian population in all areas can be measured. The budget mainly depends on the capacity of each ministry. Entities such as the Ministry of Environment must enhance their capacity in order to measure progress on all the candidate SDGs.

Key Recommendations

This study arrives at various recommendations that could be followed by different developing countries to generate indicators that answer to national and international demands for information. A key recommendation

is to create a tool that enables all countries to systematise and map all available data and information as well as identify data gaps in different areas. For instance, the data quality assessment framework used in this study helped the research team to undertake the data-mapping exercise and identify the quality and availability of data and information for measuring progress on sustainable development.

Although many indicators can be measured and monitored, greater efforts are required from the INEI and the broader national statistical system in a number of areas. First, the INEI should work together with various data producers at different levels to standardise data collection processes, including methodologies and digitalisation, across government entities. Second, the INEI should include some new questions in the National Household Survey (or specialised surveys) to measure the finalised SDG indicators. Regarding indicators on energy and environment, Peru can create synergies with international organisations to measure indicators that it by itself cannot. Synergies could also facilitate the transfer of technical knowledge and strengthen cooperation between government and international partners. Third, the INEI needs to build capacity in terms of personnel and infrastructure, since the demand for information from government entities is increasing and the development of a monitoring system for the SDGs will soon begin. It is thus necessary to increase the INEI's budget to hire personnel, improve infrastructure, adopt new technologies to collect data and build capacity in other entities. Finally, all political parties must embrace the post-2015 agenda since it will be part of the policy frameworks of many governments.

Moreover, ministries should make the following changes in order to improve data: (i) implement results-based budgeting, (ii) disseminate information and analysis on the processes and results of government interventions, (iii) improve human capital and standardise heterogeneous visions, (iv) build a culture of accountability that feeds back on management, (v) strengthen the development of indicators and improve the clarity of priorities, (vi) collaborate with the INEI to standardise data collection processes, (vii) improve coordination between current and capital expenditure and (viii) strengthen territorial articulation.

Introduction

In September 2000, the heads of state and government of 189 countries gathered at the United Nations (UN) for the Millennium Summit. The Millennium Declaration was signed to reaffirm the principles and objectives found in the UN Charter and establish eight Millennium Development Goals (MDGs) to be achieved by the end of 2015. Peru's achievements in terms of the MDGs have been satisfactory. Many of the targets under the MDGs have been achieved before the deadline. As the world moves forward with the post-2015 development agenda, it is important to inspire countries to be ambitious to spur efforts and real change.

At the UN Sustainable Development Summit in September 2015, the UN and member states defined and adopted the Sustainable Development Goals (SDGs) that succeed the MDGs (see UN 2015). They build on the Rio+20 Conference on Sustainable Development in 2012, where governments agreed on the fundamental elements of a post-2015 development agenda that incorporates economic, social and environmental well-being. The SDGs draw on lessons learned from the MDGs and incorporate aspects that were excluded or left unachieved, namely a greater number of goals and associated targets related to the environment and climate change, the economy, and peace and security.

These ambitious goals, under which there are 169 targets, have a deadline of 2030. The SDGs are universal in nature, which means that they apply to all countries, take into account different realities in developing and developed countries, and respect national priorities. People are at the centre of sustainable development. The UN (2015) recognises that "eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development." The post-2015 agenda integrates the three dimensions of sustainable development – the economic, social and environmental.

Unlike the MDGs, the SDGs permit countries to determine their own sustainable development targets and corresponding indicators by which they will measure progress. In this context, it is important to highlight the concept "leave no one behind" in the post-2015 agenda. The concept implies that progress should be ensured within all sectors and for all people in society. Given this key concern, the challenges of obtaining good quality data, including disaggregated data, throughout the developing world and the fact that the SDGs cover more areas than the MDGs, a "data revolution" is necessary to better track sustainable development progress. Furthermore, it is necessary to identify key data gaps for monitoring progress on the SDGs in specific countries.

This report provides an analysis of important SDG priorities for Peru and examines data availability for monitoring progress on the SDGs at the country level. It contributes to understanding how global and national indicators could be measured and what the challenges and opportunities are for realising progress. The comparative matrix of targets and indicators will be useful for policy-makers during the planning phase for implementing the SDGs at the national level. Additionally, the unpacking of the data revolution in Peru will be an excellent input that can help start the same process in other Latin American countries.

This report is part of the broader initiative – "The Post-2015 Data Test: Unpacking the Data Revolution at the Country Level" – which aims to road-test how the candidate SDGs could be applied and measured across low-, middle- and high-income countries. The Peru case study includes an examination of goal areas which roughly capture 12 of the 17 SDGs that were adopted in September 2015, including poverty, education, employment and inclusive growth, energy and infrastructure, environmental sustainability and disaster resilience, governance and global partnership for sustainable development. Launched by Bangladesh's

Centre for Policy Dialogue (CPD) and Canada's Norman Paterson School of International Affairs (NPSIA), in association with Southern Voice on Post-MDG International Development Goals, the initiative also includes case studies on Bangladesh, Canada, Senegal, Sierra Leone, Tanzania and Turkey.

This report is divided into six sections. Following the introduction, the second section provides an overview of the research process. The third section details Peru's priorities for post-2015, the fourth reviews data availability for selected goal areas, while the fifth examines the political economy dimensions of the data revolution in Peru. The final section presents the principal conclusions of this study.

Research Process

Research Team

The Group for the Analysis of Development (Grupo de Análisis para el Desarrollo or GRADE) was responsible for conducting the Peru case study under the Post 2015 Data Test. GRADE is a private, non-profit research centre whose main objective is to develop applied research that helps to enrich the debate, design and implementation of public policies in Peru. The multidisciplinary research team benefitted from the cooperation of economists, sociologists and anthropologists throughout the research process.

Methodology

The *Methodology and Implementation Guide* utilised for the Peru case study was developed by CPD and NPSIA in association with Southern Voice (see Bhattacharya, Higgins and Kindornay 2014). It details the various steps to determine the availability, quality and validity of data for the targets and indicators to measure progress on the post-2015 agenda. The guide outlines global targets and indicators to be examined in all countries and how teams should go about selecting national priorities. It also provides information for data quality assessment.

Under the Post-2015 Data Test, each country is expected to conduct a literature review, host an inception workshop to launch the initiative at the country level, hold key informant interviews and focus group discussions with key stakeholders (as appropriate, depending on the country context) and conduct a data-mapping exercise and data quality assessment for measuring post-2015 progress. The research process included the identification of national-level targets and indicators for select candidate SDGs.[3] Reflecting a mix of MDG-like goal areas and new issues that are covered by the SDG framework, the initiative included the following goal areas:

- poverty
- employment and inclusive growth
- education
- global partnership for sustainable development
- energy and infrastructure
- governance
- environmental sustainability and disaster resilience

Based on the methodology for the initiative, researchers examined 5–6 targets and approximately 8–12 indicators for each candidate goal. CPD, NPSIA and Southern Voice pre-selected some targets and indicators to be examined in *all countries* under each selected goal area to allow for comparison on data availability across country case studies. Within this set of pre-selected targets and indicators, they also included one target reflecting a potential global minimum standard[4] for each goal area. These targets and indicators are referred to as “global” throughout the study. All other targets and indicators were chosen in consultation with stakeholders. Further, to ensure consistency, global targets and indicators make use of international definitions, typically from UN agencies, where possible. Within the “national” set of targets and

[3] The methodology that informs this report was developed prior to the release of the finalised post-2015 agenda (UN 2015). The seven areas examined capture 12 of the 17 candidate SDGs. See Bhattacharya, Higgins and Kindornay (2014) for further details on how candidate goals were selected and the key priority areas included under each goal.
[4] Global minimum standards refer to potential targets and corresponding indicators that should be realised for all people regardless of where they live. An example of a global minimum standard would be “Ensure no person is living on less than US$1.25 (purchasing power parity [PPP]) per day by 2030.”

indicators, research teams were instructed to ensure that at least one target (and corresponding indicator[s]) connects to another theme to support intersectionality between goals.

Key Activities

Unlike other research teams participating in the initiative, the Peru research team did not hold an inception workshop to identify post-2015 priorities for Peru. This was partly because information related to Peru's post-2015 priorities was already widely available owing to UN consultation processes and efforts by the Peruvian government to define the national agenda. As such, the research team was able to assess potential global targets and indicators against the priorities that Peru as a country embraced for the post-2015 period (see UNDP 2013e). It is important to point out that when this study was conducted, the Peruvian government was still engaged in the proposal phase and had not yet decided upon indicators for each goal area. For this reason, the study includes proposed indicators assigned to each goal area that do not perfectly coincide with the government's agenda.

In preparing this report, the research team engaged in a number of steps. The first step was to elaborate a list of indicators to measure targets under each goal area and share it with stakeholders from the public sector, academia, international organisations and civil society to gain feedback. A number of focus group discussions and key informant interviews were held to this effect. In order to establish the list of indicators, the research team mapped all official and non-official databases available in Peru for data and information that permit the measurement of different targets related to the goal areas examined under the Post-2015 Data Test. The team examined technical documents accessible through the databases to determine the levels targeted by the databases. It then elaborated the list of indicators to measure targets under each goal area, including those suggested in the *Methodology and Implementation Guide*, and identified possible sources for monitoring progress on the SDGs. Once the list was elaborated, a workshop was held to debate the priorities and sources identified and included participation by various stakeholders.

The workshop allowed the research team to hear stakeholders' opinions regarding the characteristics that indicators should have if they are to effectively measure targets. Stakeholders also offered recommendations regarding which indicators should be proposed for Peru, including the goals to which they should be assigned.

Additionally, a key informant interview was held with the Executive Director of Surveys and Census of Peru's National Institute of Statistics and Information Technology (Instituto Nacional de Estadística e Informática or INEI). The objective of this in-depth interview was to collect information about the evolution of the national statistics office over time, its role in the national statistical system, and the changes that have occurred over time regarding data collection, positive drivers of change with respect to improving databases and public access and the politics behind the generation of information by the government. This interview allowed for a greater understanding of the national statistical system as well as the role played not only by the INEI, but also the various ministries that produce economic and social data.

Once the information from the workshop and other research activities was consolidated, the list of indicators was modified based on stakeholders' recommendations. The team then proceeded with the elaboration of the indicators for targets under each goal area. During this process, managers of ministries' statistics offices were consulted to assess the availability and quality of data. Table 1 presents the workshop, focus group and key informant interview participants.

Table 1. Workshop, focus group and key informant interview participants	
Institution	**Position of participant**
Ministry of Education	Secretary of Strategic Planning
Ministry of Economy and Finance	Director of Quality of Public Spending
Ministry of Economy and Finance	Coordinator of Social Programs
Ministry of Economy and Finance	Coordinator of Reporting and Monitoring
INEI	Executive Director of Surveys and Census
UN Children's Fund	Senior International Officer
UN Population Fund	Senior International Officer
Pontifical Catholic University of Peru	Coordinator of the Department of Economics

Finally, a specialist in economic and social indicators and a government official reviewed the report in order to validate it and provide opinions from different perspectives on the proposed indicators in the study.

Lessons Learned through the Research Process

Many lessons were learned during the research process. With regard to the *Methodology and Implementation Guide*, it was evident that the holding of inception workshops depended on country contexts. In the case of Peru, the government and academia had established knowledge on the indicators for the MDGs and post-2015 agenda. The government had previously held consultations with different sectors on the post-2015 agenda. Therefore, an inception workshop was skipped and the research team proceeded with discussions on goals, targets and indicators with stakeholders.

With regard to the organisation of focus group discussions, the research team recognised how difficult it was to consolidate different stakeholders' agendas. For this reason, after the first focus group discussion, the research team held consultations and meetings separately with each sector to discuss relevant indicators and receive feedback on what can and cannot be measured. In parallel, the government held discussion forums with different sectors on issues related to the post-2015 agenda, which reduced the time that officials had available to discuss issues related to this topic solely with the research team.

With respect to the elaboration of indicators, the research team observed that data are available for various years for certain goal areas (e.g., poverty), but there are limited data for other goal areas (e.g., the environment). In some cases, the majority of data are not available to the general public. This demonstrated the need to develop data collection systems and suggested that Peru is going to encounter difficulties in monitoring the post-2015 agenda.

Post-2015 Priorities for Peru

Overview

To inform the establishment of the post-2015 agenda, the UN System in Peru completed a national consultation process between November 2012 and March 2013 (UNDP 2013e). During this process, Peru's Ministry of Development and Social Inclusion worked as the government counterpart to guarantee and coordinate the participation of other actors. The actors involved were the Peruvian Agency of International Cooperation, Ministry of Foreign Relations, National Center of Strategic Planning (Centro Nacional de Planeamiento Estratégico or CEPLAN), INEI, National Assembly of Regional Governments, National Agreement Forum, Board of Agreement for the Fight against Poverty and Confederation of Private Business Institutions. In addition, as associates of the UN System in Peru, the UN Development Programme, UN Children's Fund, Joint UN Programme on HIV/AIDS, Pan American Health Organization, World Health Organization, UN Women, UN Population Fund and International Labour Organization participated in the consultations. The National Secretariat for Youth, National Council for the Integration of Persons with Disabilities and National Organization of Indigenous Andean and Amazonian Women of Peru also provided inputs into the consultations. Figure 1 (next page) provides an overview of the key post-2015 priorities identified through consultations.

One of the lessons learned from the MDGs was that goals should be the product of a broadly participatory process. For that reason, the consultation process in Peru included the voices of government officials as well as private sector and civil society representatives, "specifically those who have been traditionally excluded from the decisions on the development agenda" (UNDP 2013e, 2). More specifically, the "national consultations included various groups throughout the country, such as women of African descent and Indigenous women of the Amazon and High Andes; boys and girls; persons with disabilities; local leaders and representatives of grass-root organizations; persons living with HIV/AIDS; male and female youth; housekeepers; and several other groups" (UNDP 2013e, 3). Additionally, regional and local leaders of all departments in the country participated in the discussion on MDG progress and local and national priorities for post-2015. In total, more than 700 people participated in more than 60 national consultations.[5] In general, consultations are valuable because they support participatory planning practices and the national vision for the future (UNDP 2013e, 3).

Consultations demonstrated that Peruvians consider the country to have "progressed" in recent years, but emphasise "there is much to be done" to become a developed country. Regarding priorities, civil society not only focused on basic services such as education, health and sanitation as well as economic aspects such as employment, but also an interest in environmental protection, the quality of governments and governance (including the decentralisation process), and ending the insecurity created by gendered violence, crime and corruption (UNDP 2013e). These findings were shared with government officials and reflect the three dimensions of sustainable development. It is important to highlight the links between the findings and existing national strategies (i.e., the national strategy titled "Include to Grow") and that the findings can serve as an input into planning processes of planning such as the realisation of CEPLAN's Bicentennial Plan.

5 Workshops lasted an average of three to four hours. They were conducted in the regions of Loreto (Padre Cocha Iquitos), Junín (Satipo), Ayacucho (Ayacucho and Huamanguilla), Piura (Yapatera), Puno (Juliaca) and Lima (Metropolitan Lima, Ventanilla, and Vegueta) and included both urban and rural areas.

Figure 1. Post-2015 priorities for Peru

Issue	Priorities
Health	Improve coverage, mental and reproductive health, and interculturality
Climate change	Improve environmental sustainability and reduce contamination
Governance	Establish a strong government and fight against corruption
Education	Improve quality, infrastructure and interculturality
Gender equality	Eliminate violence and promote advancement of women in political roles
Cultural identity	Promote values and ethics
Employment	Generate decent employment and ensure equal remuneration
Protection of infants and elders	Demographic bonus
Food security	Reduce hunger and promote the National Plan for Food Security and Nutrition
Rights	Compliance with and exercise of rights
Culture of peace	Improve security and reduce violence
Civil society	Strengthen relations with the government

Selecting National Targets and Indicators

The criteria for selecting national-level targets and indicators found in the *Methodology and Implementation Guide* were followed by the Peru research team. The guide details the various steps to determine the fit, quality and validity of indicators for measuring progress on the proposed SDGs. It also emphasises that the list of proposed indicators should reflect the sustainable development challenges and priorities of each country rather than be based on data availability (Bhattacharya, Higgins and Kindornay 2014). It points out that targets should be relevant through a clear connection to the goal area and priorities identified through consultations, likely to impact sustainable development, understandable and easy to communicate, ambitious yet realistic, measurable, consistent with international law, valuable in realising other targets across goal areas, and focused on equity and equality where possible.

In line with the timeline for the SDGs, all targets listed in this report assume a 2030 deadline. National-level targets and indicators were selected across goal areas based on a literature review of current government documents. Key documents include the National Strategic Plan for Statistical Development (Plan Estratégico Nacional para el Desarrollo Estadístico or PENDES) 2013–2017, the Multi-Annual Strategic Sector Plan

(Plan Estratégico Sectorial Multianual or PESEM)[6] of each ministry and ministries' national programmes, social projects and strategies. Focus group discussions and key informant interviews also informed the selection, with conversations about global indicators and their limitations helping as well. Of course, the research team consulted the proposal of the Open Working Group on SDGs (see OWG 2014) and the full list of proposed goals, targets and indicators from selected sources presented in the *Methodology and Implementation Guide* (see Bhattacharya, Higgins and Kindornay 2014). As with the global targets and indicators, a data-mapping exercise helped assess the availability and quality of data.

It is necessary to highlight that, like other country research teams, the Peru research team did not include specific numerical targets across the goal areas. Instead, the proposed indicators have been expressed in terms of "reducing" or "increasing." Specific numerical targets for Peru were outside the scope of what could be accomplished within the timeline and resources for the case study. The research team hopes the establishment of numerical targets will be done in the near future.

Candidate SDGs and Feedback on the Potential Goal Areas for Peru

The following sections present the key national priorities identified by this study. The national priorities are discussed and accompanied by tables presenting the associated global, national and cross-cutting targets and indicators that have been selected for the Peru case study. Annex 1 compiles tables for all targets and indicators selected for this study with corresponding definitions included. Some global targets and indicators are the same as those pre-selected by CPD, NPSIA and Southern Voice.

Overall, most of the global targets and indicators reflect national priorities and relevant discussions on the SDGs within the Peruvian government. Since it is more of an international focus, involves relationships with other countries and depends on bilateral and multilateral agreements, the goal area "Establish a global partnership for sustainable development" is not a national priority. In line with focus group discussions and key informant interviews, the research team decided to assess the global targets and indicators under this goal area because it is an international priority, but national ones were not proposed. According to consultations, most stakeholders preferred that the study just focus on national priorities.

The government has embraced the priorities identified by the Open Working Group on SDGs, but it identified four main national priorities: (i) gender equality, (ii) climate change, (iii) financial inclusion and (iv) industrial technical innovation for diversified production (GRADE 2014). Furthermore, the government has developed key national strategies focused on early aged children[7] in recent years that were deemed worthy of consideration. Comments received throughout the research process also served as inputs to establish priorities.

The research team selected (i) women, (ii) indigenous peoples, (iii) early aged children and (iv) young people as priority groups that need special attention in the country. For women and indigenous peoples, efforts are needed to address inequality and marginalisation across goal areas. Regarding early aged children and young people, there is widespread consensus on the importance of providing opportunities to improve lives in the future. For these reasons, the team developed specific indicators for these groups.

[6] PESEM is a management instrument for guiding the objectives of all actors within a particular sector. It incorporates prioritised policies, goals and strategies to achieve the objectives of public and private entities at the national, regional and local levels (MINEDU 2015).
[7] Examples of strategic programmes designed to enhance the life trajectories of children are the National Strategy on Development and Social Inclusion "Incluir para Crecer," the National School Feeding Programme "Qali Warma" and the National Child Care Programme "Cuna Más."

End Poverty

Current Status

MDG 1 on eradicating extreme poverty and hunger has seen progress at the global level. Between 1990 and 2015, the proportion of people whose income is less than US$1.25 a day has been halved. Halving the proportion of people who suffer from hunger during the same period has also seen progress, but some progress has been reversed by the recent economic crises and rise in food prices (UNDP 2013b).

Peru has been successful in reducing poverty. The country has reduced by half the proportion of people who live below the international extreme poverty line and those who suffer from hunger. In addition, Peru has met the target on the percentage of children under five years of age who suffer from global malnutrition (weight for age) and chronic malnutrition (height for age). However, it has not sufficiently reduced the percentage of the population with caloric deficiency, which demonstrates an irregular tendency (which is the same at the global level) to experience food crises due to the rise in food prices (UNDP 2013d).

Previous and Ongoing Efforts

Peru has implemented a number of programmes to realise progress on poverty reduction. According to Paul Krugman, winner of the Nobel Prize in Economics, the reduction of extreme poverty in the country is due largely to the major role that the Peruvian government has assumed through its social programmes (*Andina* 2014). To eradicate extreme poverty and hunger, the government has implemented notable programmes such as “Juntos,”[8] “FONCODES,”[9] “Pensión 65,”[10] “Qali Warma”[11] and “Cuna Más.”[12] These programmes have contributed to poverty reduction through conditional cash incentives, access to basic services, economic opportunities, adequate nutrition and technical support. In addition, they have supported the realisation of other MDGs such as achieving universal primary education and reducing infant mortality.

Looking towards post-2015, Peru is well positioned to realise further gains in terms of poverty reduction. Rebecca Arias, who is the resident coordinator of the UN in Peru, is optimistic in her belief that Peru can go beyond achieving the goal of halving extreme poverty and reducing poverty rates to 20 percent, given that the country has seen an annual decrease of 2–3 percent over the past 10 years and achieved a poverty rate of 23.9 percent in 2013 (INEI 2014c). Conversely, Arias emphasises that economic growth has benefitted the urban coastal population the most, while it has been less noteworthy in rural areas of the highlands and urban and rural areas of the jungle, where international cooperation continues to be needed to reduce inequality and development gaps (*RPP Noticias* 2013).

[8] “Juntos,” the National Programme of Direct Support to the Poorest, aims to contribute to human development and capacity development, especially for future generations. It aims to break the intergenerational transfer of poverty through economic incentives that promote and support access to quality services in education, health, nutrition and identity using an approach based on the restitution of these basic rights, with organised participation and monitoring by stakeholders in the community (MIDIS 2015c).
[9] “FONCODES,” a programme of the Ministry of Development and Social Inclusion, promotes the sustainable economic empowerment of rural households in extreme poverty by creating economic opportunities in alliance with actors involved in local development (MIDIS 2015b).
[10] “Pensión 65” provides protection to vulnerable people aged 65 years or older and gives them a financial grant of 125 soles per month (MIDIS 2015d).
[11] The National School Feeding Programme “Qali Warma” aims to provide quality food services for children at the pre-primary and primary levels (MIDIS 2015e).
[12] “Cuna Más,” a social programme of the Ministry of Development and Social Inclusion, aims to improve the development of children under three years of age in poor areas to bridge the gaps in their cognitive, social, physical and emotional development (MIDIS 2015a).

A key milestone for the success of social programmes and reduction of existing gaps was the creation of the Ministry of Development and Social Inclusion in 2011, which is responsible for policy-making and interventions in social sectors. To develop a policy on social inclusion, the ministry has begun to define the target population for processes aimed at enhancing development and social inclusion. Members of the population meriting additional efforts are those who live in homes that have at least three of the following four characteristics: presence in a rural area, features associated with ethnic exclusion, low level of formal education of female adults, and poverty (UNDP 2013d).

The introduction of the National Strategy on Development and Social Inclusion "Incluir para Crecer" in April 2013 represented an important step in five strategic areas: (i) infant nutrition, (ii) early infant development, (iii) integral development in childhood and adolescence, (iv) economic inclusion and (v) protection for the elderly (MIDIS 2013). According to the Board of Agreement for the Fight against Poverty,[13] another important element is the implementation of results-based budgeting, which involves permanent processes for coordination and agreement and the promotion of greater efficiency and effectiveness in programmes and social projects (UNDP 2013d).

A relevant effort in the measurement of poverty was the methodological update of the measurement of monetary poverty in 2010.[14] This update was the result of work begun in 2007 with the creation of the Specialized Advisory Committee on Poverty, which was sponsored by the World Bank and INEI, to ensure greater transparency and quality of information. In 2010, this committee became the Advisory Committee for Estimating Poverty and worked on related indicators in the country.[15] The committee's main duties are to advise on all processes for measuring poverty, monitor adopted processes, assess and validate the results of periodic estimates, to hold reserve of information processes until they are published, and propose changes to methodologies where appropriate (INEI 2014c).

National Priorities for Ending Poverty

Peru has national poverty lines deflated by year and location. The proposed global indicators are relevant for the country and allow for international comparison. In 2012, the proportion of the Peruvian population below US$1.25 (PPP)[16] per day was 2.9 percent (World Bank 2014c) and the proportion below US$2 (PPP) per day was 8 percent (World Bank 2014d). Peru has high employment rates, but the majority of employment is informal. By 2013, similar proportions of the poor (73.2 percent) and non-poor (72.8 percent) participated in some economic activity, while 77 percent of the working poor participated in micro enterprises with one to five employees (INEI 2014c).

The indicator "Chronic malnutrition in children under 3 years" is a major objective for the Ministry of Development and Social Inclusion in the PENDES (INEI 2013b). There is a global indicator on the prevalence of child stunting in boys and girls under five years of age, but a workshop on poverty, education and labour[17] highlighted the requirement of maintaining a specific indicator on chronic malnutrition in children under three

[13] Created in 2001, the Board of Agreement for the Fight against Poverty is an unprecedented space where representatives from government institutions and civil society adopt agreements and coordinate actions to effectively combat poverty in each region, department, province and district of Peru.
[14] Changes made in 2010 include changes in: (i) the urban/rural population structure, (ii) consumption patterns, (iii) caloric requirements, (iv) the estimation of household spending (imputation and changes in the components of expenditure) and (v) the reference population.
[15] The Advisory Committee for Estimating Poverty is composed of representatives from international organizations, national government institutions, the academic community and research centers.
[16] 2005 prices.
[17] As part of its National Strategy on Child Development, the Ministry of Social Inclusion developed several workshops on different pillars for child development.

years because these years are the most relevant in terms of nutrition and malnutrition associated with physical and cognitive damage that is difficult to reverse (MIDIS 2013).

Slipping back into poverty remains a challenge. Although poverty rates continue to decrease, the probability of falling back into poverty will persist if inequalities based on gender, ethnicity and territorial factors remain. If Peru adopts a "zero target" on poverty, efforts would have to be stepped up at the national and local levels and poverty measures would have to focus on specific segments of the population.

At the workshop on poverty, education and labour, stakeholders argued that there is a need for Peru to address the poverty of specific groups, specifically those who have historically lived in poverty and others for whom poverty can affect their future opportunities. Table 2 outlines the priorities under the goal area on poverty identified for Peru. While the proposed national targets are similar to the global targets, the research team has focused on reducing poverty for specific vulnerable segments of the population, namely children under three years of age, indigenous peoples and the rural population.

Table 2. End poverty: Targets and indicators

Target	Indicator
Global	
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day
Reduce poverty	Proportion of population below US$2 (PPP) per day
	Proportion of population living below national poverty line
	Share of employed persons living below the nationally-defined poverty line
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %[18]
National	
Reduce poverty	Proportion of households with children under 3 years below national poverty line
	Proportion of indigenous population below national poverty line
	Proportion of rural poverty
Reduce hunger	Percentage of the population with caloric deficiency
Cross-cutting: Ensure quality education for all	
Increase development in early childhood	Average level of development of girls and boys in motor dimension
	Average level of development of girls and boys in the dimension of language and cognitive development
	Average level of development of girls and boys in socio-emotional dimension

Reduce Poverty

The indicator "Children under 3 years below national poverty line" was found in the PENDES (INEI 2013b). The incidence of poverty is high among children and young people, since the lack of resources in poor households is often associated with specific situations of risk for this segment of the population, such as malnutrition, school dropout or lack of access to medical services. These situations may affect the opportunities of children and young people to develop in the future, with the effects of poverty being considered irreversible in some cases. In 2013, poverty affected 35.5 percent of children under five years of age, 33.6 percent of those aged five to nine years, 33.9 percent aged 10–14 years and 24.8 percent of young

[18] This will be disaggregated by years.

people aged 15–19 years. In other age groups, the incidence of poverty is lower than the national average (INEI 2014h).

The indicator “Proportion of indigenous population below national poverty line” was also found in the PENDES. Data are available in *Evolution of Monetary Poverty 2009–2013: Technical Report* (INEI 2014c). Peru is a country characterised by its ethnic and racial diversity. When analysing the incidence of poverty according to mother tongue, poverty affects more people who speak a native language, such as the Quechua, Aymara or Amazonian languages. In 2013, poverty affected 35.9 percent of people who speak a native language (9 percent were considered extremely poor and 26.9 percent were considered poor), which was almost twice the incidence in the population who speak Spanish, 20.8 percent (3.7 percent were considered extremely poor and 17.1 percent were considered poor) (INEI 2014c).

The indicator “Proportion of rural poverty” was not found in the PENDES, but is a recurrent topic in annual reports on trends in poverty (see INEI 2013a; INEI 2014c). In 2013, 75 percent of the Peruvian population lived in urban areas and 25 percent resided in rural areas. The rural population represents a quarter of the total population and 49.3 percent of the country’s poor. Notably, 83.3 percent of the extreme poor lived in rural areas. These figures reflect changes in the demographic composition and the urban-rural distribution of the population in poverty and extreme poverty. Furthermore, poverty affected a greater proportion of the rural population who spoke a native language (49.4 percent versus 20 percent in urban areas). The same applies to children and young people in rural areas, where over 50 percent of children under 15 years of age were poor in 2013 (INEI 2014c). Finally, the cross-cutting targets and indicators reflect the relationship between poverty and education. The proposed indicators are found in the PENDES (INEI 2013a) and particularly concern education objectives. Early interventions have been emphasised in recent years to improve children’s life trajectories. The lack of opportunities for children might result in cognitive underdevelopment and poverty that affects them throughout their lives (MIDIS 2013) and poverty might be consequently transmitted across generations.

Reduce Hunger

The indicator on the percentage of the population with caloric deficiency was found in the PENDES (INEI 2013b) and deemed relevant during the workshop on poverty, education and labour. Over the last decade, the minimum caloric requirement for Peruvian families has been growing, with significant changes occurring across regions (the requirement in rural areas has been increasing in particular). These dynamics are the result of an increase in the average age of families, with which per capita caloric requirements tend to increase (Zegarra 2010). In 33.7 percent of the country’s households there exists at least one member with a caloric deficit, with corresponding figures being 45.3 percent of households in rural areas, 31.5 percent in urban areas not including Metropolitan Lima and 27.8 percent in Lima (INEI 2014a).

Ensure Quality Education for All

Current Status

According to current global trends, it is unlikely that all children will complete a full cycle of primary education by the end of 2015. With respect to developing regions, the adjusted net enrolment rate increased from 83 percent in 2000 to 90 percent in 2011. Globally, the quantity of children not in school has decreased from 102 million to 57 million. However, the early school dropout rate remained at 25 percent between 2000 and 2011, which represents 34 million children, in 2011, who drop out of school before reaching the last grade of primary education. It is important to note that the literacy rate for young people aged 15–24 years increased from 6 percent in 1990 to 89 percent in 2011 (UNDP 2013b). MDG 3 on eliminating gender inequality at all education levels (primary, secondary and tertiary) has also seen some progress. Gender parity at the primary level is within, or close to, the range of 0.97 to 1.03, which is considered acceptable.

In Peru, there have been various advancements related to education. The net enrolment rate at the primary level rose from 92 percent in 2002 to 96 percent in 2012 in concurrence with advances at the global level. Furthermore, more children stay in school longer. The percentage of students who reach the sixth grade of primary school rose from 38.5 percent in 2011 to 69.4 percent in 2012. At the national level, Peru has reached a literacy rate of 98.7 percent among young people aged 15–24 years, though a gap persists between urban and rural areas (UNDP 2013d). In terms of gender equality outcomes in education, Peru has reached the MDG target on eliminating gender disparity in access to education. The country obtained parity indexes of 1.00 at the primary level, 1.02 at the secondary level and 1.06 at the tertiary level (with the latter two levels being favourable to women), but in all of these cases the urban-rural difference was maintained. However, it is necessary to point out that the MDGs used 1990 as their baseline year and some countries, including Peru, had already reached or almost reached various development targets fixed for 2015 before the MDGs were introduced in 2000. For example, the net enrolment rate at the primary level was 95 percent in 1993 (World Bank 2015), indicating almost universal access to education at this level.

Previous and Ongoing Efforts

For universal primary education, the Peruvian government recently established a policy that promotes the enrolment of more students in a direct way: “Conditional cash transfer from ‘Juntos’ programme to households living in extreme poverty […] has contributed to incentivizing the enrolment and attendance of children between the ages 6 and 14 at schools in rural zones, at the same time that it has augmented the available investment for equipment and infrastructure in primary education” (UNDP 2013d, 70).

Another education-oriented programme is “Qali Warma,” the National School Feeding Programme that is implemented at pre-primary and primary schools located in poor and extremely poor districts of the country. Its main objective is to improve children’s educational outcomes by improving attendance and nutritional status. With respect to achieving gender equality and female autonomy, there have been advances thanks to the expansion of pre-primary education centres and the conditions of the “Juntos” programme. Despite this progress, challenges remain in terms of educational quality. National assessments such as the Student Census Evaluations from 2007 to 2014 showed that less than 50 percent of second grade students mastered the reading comprehension skills necessary to pass the grade, while less than 25 percent of children mastered in the necessary math skills (MINEDU 2014). Similar results can be observed in international evaluations. In the most recent results of the Programme for International Student Assessment (PISA), Peru

came in last place in each of the three assessed areas (reading, mathematics and science), thus finding itself far from the average (*El Comercio* 2013).

In 2014, a new University Act was enacted, representing the first milestone in the reform of university education. The National Superintendence of University Education, a specialised technical agency attached to the Ministry of Education with technical, functional, economic, budgetary and administrative autonomy, was created. Its general functions are to (i) supervise the quality of university education services, (ii) authorise the operation of an institution, faculty or programme, (iii) monitor the use of public resources and (iv) ensure compliance with the University Act.

National Priorities for Ensuring Quality Education for All

The PESEM for education contains national educational priorities for Peru (see MINEDU 2012). They are oriented to increase access to education and improve educational outcomes for Peruvian students. The priorities are: (i) quality learning for all, (ii) attention to early childhood, (iii) rural education quality, (iv) appropriate cultural attention, (v) development of professional teaching, (vi) decentralised management of education, (vii) inclusive and quality higher education, (viii) development of labour and professional skills in youth, (ix) promotion of physical activities and (x) promotion of high-performance sports. Table 3 outlines the priorities identified for Peru for ensuring quality education for all.[19]

Regarding the global targets, the indicators associated with the target "Ensure all children have access to early childhood and quality primary and secondary education" are, overall, relevant for Peru. Since the country has reached satisfactory outcomes with regard to the completion of primary and secondary school, the national focus has shifted to early childhood and pre-primary programmes, as described in the second priority of the PESEM (MINEDU 2012) and the National Strategy on Development and Social Inclusion "Incluir para Crecer" (MIDIS 2013). The indicator "Proportion of individuals enrolled in a Technical and Vocational Education and Training institution" is also relevant for Peru given that the second priority in the PESEM refers to it.

Table 3. Ensure quality education for all: Targets and indicators

Target	Indicator
Global	
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes
	% of girls and boys who complete primary school
	% of girls and boys who complete secondary school
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution

[19] Other documents related to future priority guidelines include *2021 National Education Project* (Consejo Nacional de Educación 2007) and *Guidelines for the Intergovernmental Relations between the Ministry of Education and Regional and Local Governments* (MINEDU 2013).

National	
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys with disabilities who access a school programme
	% of indigenous girls and boys receiving intercultural bilingual education
	% of girls living in rural areas who complete secondary school
Improve the quality of education at all levels	% of 15-year-old students who achieve proficient levels in reading, mathematics and science in the Programme for International Student Assessment (PISA)
Increase development in early childhood	Average level of development of girls and boys in motor dimension
	Average level of development of girls and boys in the dimension of language and cognitive development
	Average level of development of girls and boys in socio-emotional dimension
Ensure a safe, secure and effective learning environment in the classroom	Proportion of public schools with classrooms in good condition
	Proportion of public schools with hygienic services in good condition
Access to quality higher education	% of students living in poverty who have access to higher education
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Improve security and reduce violence	% of girls and boys affected by violence in school

Ensure all children have access to early childhood and quality primary and secondary education

The majority of the proposed national indicators were found in the PESEM and PENDES. An ongoing requirement in education, which is often discussed in the media and was mentioned in key informant interviews, is the enhancement of quality at all levels. In 2007, the Student Census Evaluation was created to test all children in second and fourth grades at the primary level in intercultural bilingual schools on mathematics and reading comprehension. However, there is no national evaluation for secondary school students, so it is necessary to use international evaluations such as the PISA to evaluate achievement at this level. There is no specific indicator for the secondary level, but the research team has proposed "% of 15-year-old students who achieve proficient levels in reading, mathematics and science in the Programme for International Student Assessment (PISA)" as a relevant indicator to track the quality of education at the secondary level.

For the target on ensuring access to education, the research team selected three national indicators and took into account vulnerable segments of the population (children with disabilities, indigenous children and rural girls). These indicators were found in the PESEM (MINEDU 2012) and validated in discussions with stakeholders.

Increase development in early childhood

The National Strategy on Development and Social Inclusion "Incluir para Crecer" included a discussion on the growing interest in early childhood (MIDIS 2013). Peru does not have indicators related to this issue, but the first national assessment at the pre-primary level was conducted was carried out by the Ministry of Education in 2014. It included two main indicators related to pre-primary education, the quality of the classroom climate (measured with the Early Childhood Environment Rating Scale-Revised) and a measure of child development

(measured with the Early Development Instrument) (*Perú21* 2013b). The collected data are not readily available, but these are prospective pre-primary development indicators.

Ensure a safe, secure and effective learning environment in the classroom

One of the priorities in education policy is school infrastructure, which includes physical infrastructure as well as computers, software and hardware, and internet access (*Perú21* 2015). Indicators on this issue were also found in the PENDES (INEI 2013b).

Access to quality higher education

Among the Peruvian government's social programmes is the National Programme of Scholarships and Educational Loans, which provides scholarships and student loans to talented students, with quality standards related to training and social inclusion (PRONABEC 2015a). One of the most popular scholarships is "Beca 18," which is provided to poor and extremely poor[20] talented students (PRONABEC 2015b). The research team included an indicator on the percentage of students living in poverty who have access to higher education, which was also found in the PESEM (MINEDU 2012).

[20] Following Peru's Household Targeting System criteria, which consider poor families to be those who live in homes that have at least three of the following four characteristics: presence in a rural area, features associated with ethnic exclusion, low level of formal education of female adults, and poverty (UNDP 2013d).

Create Jobs, Sustainable Livelihoods and Inclusive Growth for All

Current Status

In the context of the MDGs, a target on employment was included under MDG 1 on eradicating extreme poverty and hunger. At the global level, achieving full and productive employment and decent work for all has been an uphill battle, particularly given that the global financial crisis widened the global employment deficit to 67 million people (UNDP 2013b). MDG 3 on promoting gender equality and empowering women also captured employment outcomes. Progress has been slow, however, with the proportion of employed and remunerated women in non-agriculture jobs only increasing from 35 percent in 1990 to 40 percent in 2011 (UNDP 2013b).

In the case of Peru, advances have been made in generating full and productive employment, but these achievements do not guarantee that the country will meet the MDG target by the end of 2015. Furthermore, the proportion of employed and remunerated women outside of the agricultural sector increased to 38.7 percent in 2012, representing slow progress over the last decade given that the figure was at 33 percent in 2001. Gender parity in the labour market remains an important debate in Peru, as women continue to receive lower salaries and labour demands than men (Hurtado 2013). The barriers in this situation include the persistence of a sexual division of labour (child care programmes are based on this traditional division), the existence of gender violence and scarce supervision by labour authorities (UNDP 2013d). However, this situation is not only a concern in Peru. At the May 2013 meeting of the Andean Community, ministries of labour and women's movements "advanced in the elaboration of a proposal with one that promoted equality and non-discriminatory practices in the labour market in Bolivia, Colombia, Ecuador and Peru" (*Andina* 2013).

Overall, the unemployment rate has been falling in recent years. In 2011, it was 4 percent, which is 1.3 percentage points lower than it was in 2004. This decrease was much more evident in urban areas and affected a slightly higher proportion of women (1.5 percentage points) than men (1.1 percentage points). Thus, the gender gap has been steadily but slowly narrowing (MINTRA 2012b). The underemployment rate also decreased 20 percentage points to 34.2 percent between 2001 and 2011, but the gender gap widened. Notwithstanding, the biggest problem in Peru's labour market is informal employment. Following the methodology of the International Labour Office's Regional Employment Programme for Latin America and the Caribbean, which was adopted by the Ministry of Labour and Employment Promotion, informality was still at 71.5 percent in 2011 (MINTRA 2012b).

Inequality is typically measured with the Gini coefficient, with a coefficient of 1 indicating maximal inequality. In 2013, the Gini coefficient associated with expenditure in Peru was 0.35 (0.32 for urban areas and 0.31 for rural areas) and that associated with income was 0.44. Both Gini coefficients (expenditure and income) were lower for 2013 than previous years. On the other hand, in terms of variation in average earnings, the first decile (the poorest) had a percentage change of 7.2 percent in monthly average per capita real income between 2012 and 2013. Meanwhile, the top decile (the richest) had a percentage change of -0.7 percent over the same period (INEI 2014g). Data appear to indicate that the country is becoming more equal, but there is still much room for improvement.

Previous and Ongoing Efforts

The Ministry of Development and Social Inclusion has helped to end poverty, as mentioned, and reduce inequality. In addition, the Ministry of Labour and Employment Promotion is developing four strategic programmes: “Jóvenes a la Obra,” “Vamos Perú,” “Trabaja Perú” and “Perú Responsible.” Notably, “Perú Responsible” is oriented to firms and promotes corporate social responsibility in employment, employability and entrepreneurship (MINTRA 2015a).

The other three programmes are designed to promote employment among different segments of the population. “Jóvenes a la Obra” is the National Youth Employment Programme that facilitates the access of young people to the formal labour market through job training, technical assistance for entrepreneurship and an employment agency. It is focused on the country’s poorest districts (MINTRA 2015b). “Vamos Perú” is the National Programme for the Promotion of Work Opportunities that is responsible for promoting employment through job training required by the labour market, providing advice on sustainability, formally recognising acquired job skills and linking beneficiaries with potential employers who require skilled labour (MINTRA 2015d). Finally, “Trabaja Perú” promotes inclusive social employment through the development of productive capacities. It is focused on segments of the population living in poverty and extreme poverty (MINTRA 2015c).

National Priorities for Creating Jobs, Sustainable Livelihoods and Inclusive Growth for All

According the PESEM of the Ministry of Labour and Employment Promotion (see MINTRA 2012b), there are 11 priorities in generating inclusive and sustainable jobs:

1. To strengthen services of employment promotion, employability and entrepreneurship provided mainly by labour programmes and offered in the Ventanilla Unica de Promocion de Empleo.[21]
2. To develop new policy instruments for employment promotion and employability of vulnerable groups
3. To improve coordination and complementarity services related to employment promotion, employability and entrepreneurship between and within government institutions
4. To develop a Labour Information System
5. To participate in the process of legislative regulation of labour matters as well as approving and disseminating a consistent regulatory framework to promote decent work
6. To strengthen institutionalised processes of participation and dialogue
7. To strengthen and expand the coverage of the national system of labour inspection
8. To encourage the promotion and protection of fundamental rights at work
9. To promote prevention and management of labour disputes
10. To promote corporate social responsibility
11. To promote extension of social security coverage

Although the majority of these priorities concern internal processes, they focus on the vulnerable segments of the population due to the ease of transitions between work and non-work as well as poverty and non-poverty (Rodríguez and Rodríguez 2012). Other priorities strengthen the information on the labour market, promotion of decent work and protection of fundamental rights. A major area of focus is to improve relations with companies and promote corporate social responsibility. The research team considered the proposed global indicators to reflect Peru’s national priorities. The country needs to achieve full and productive employment for all, ensure equal pay for equal work and support inclusive growth. Global and national targets and indicators are compiled in Table 4.

[21] This is a social program offered by the Ministry of Labour and Employment Promotion.

Table 4. Create jobs, sustainable livelihoods and inclusive growth for all: Targets and indicators Target	Indicator
Global	
Achieve full and productive employment for all, including women and young people	Labour force participation rate
	Time-related underemployment (thousands)
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)
Support inclusive growth and reduce inequality	Gini coefficient
	Palma ratio
	Growth rate of income of the bottom 40%
	Gross fixed capital formation (% of GDP)
National	
Promote decent work	% of child labour
	% of informal workers
Achieve full and productive employment work for all	% of youth aged 18–24 years who work at a formal firm
Ensure equal pay for equal work	Wage gap between men and women
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Monitor and end discrimination and inequalities in economic life on the basis of social status	Wage gap between indigenous and non-indigenous peoples with comparable levels of education

Promote decent work

As mentioned, the promotion of decent work is a national priority. For that reason, the research team has proposed to track child labour with the indicator "% of child labour." This indicator was found in the PENDES (INEI 2013b) and PESEM of the Ministry of Labour and Employment Promotion (MINTRA 2012b). Child labour was also discussed at the workshop on poverty, education and labour. However, although there have been prior efforts to track child labour,[22] the National Household Survey cannot provide a good estimate on this issue. In 2012, the ministry launched the National Strategy for Prevention and Eradication of Child Labour 2012-2021 (MINTRA 2012a) and expected that the INEI would conduct a specialised survey by 2015 (INEI 2013b). Another important issue in Peru is informal work, as figures have previously demonstrated. The proposed indicator "% of informal workers" was marked as a priority in the ministry's PESEM.

Productive employment work for all and vulnerable populations

Regarding vulnerable segments of the population, the Ministry of Labour and Employment Promotion considers both poor people and poor young people to be vulnerable, with the latter being more able to break the cycle of poverty through decent and stable work. The ministry is trying to provide them with more opportunities through the programme "Jóvenes a la Obra." The research team included an indicator to measure the proportion of young people aged 18–24 years who work at a formal firm, which is found in both the ministry's PENDES and PESEM. For poor people, the goal area on poverty includes an indicator on employed persons living below the national poverty line (see Table 2). However, prioritised vulnerable groups do not include women despite the existence of gender gaps in the labour market. The Ministry of Women and Vulnerable Populations has established indicators on domestic violence and other women's topics, but there are no indicators related to labour issues (INEI 2013b). Therefore, the research team included an indicator on

[22] The National Survey of Child Labour was conducted in 2011 (see CPETI 2011).

the wage gap between men and women. A cross-cutting indicator on the wage gap between indigenous and non-indigenous peoples, which is found under the goal area on institutions, has been included to measure ethnic discrimination in the labour market.

Ensure Sustainable Energy and Develop Infrastructure for All

Current Status

Energy supply and demand

From 2003 to 2013, electricity production increased by 92 percent, while the production of hydrocarbons increased by 260 percent. The growth of economic activity and energy demand in recent decades has been based on increased private investment in infrastructure and generally better social conditions (MINEM 2014b). The growth of domestic final consumption during the 2000–12 period was 3.7 percent, which was higher than global final consumption, -2.04 percent (IEA 2014). In general, the share of hydrocarbons in the global energy mix has been growing—it grew from 67 percent in 2000 to 80 percent in 2013. The shares of traditional energy sources have decreased slightly mainly due to an increase in the production of natural gas. This situation, which includes delays in the implementation of investments in refining (MINEM 2014b), has resulted in increasing crude oil imports. Currently, Peru imports to meet its energy needs of 85 million barrels of oil and 48 million barrels of diesel per day, generating a negative trade balance of US$3 billion (MINEM 2014b).

Natural gas, a non-renewable resource with competitive prices and low emissions, is enabling Peru to meet larger domestic energy demand and begin exports equivalent to domestic consumption. However, the country could experience a contraction in natural gas consumption given low investment in exploration activities, acquisition of seismic data and number of wells drilled due to three factors: (i) lack of incentives to explore for natural gas linked to limited transport capacity, (ii) delays in issuing the necessary permits for exploration activities and (iii) socio-environmental problems (MINEM 2014b). Meanwhile, Peru has been slowly increasing its use of renewable energy sources. Of total electric energy in 2013, 54.3 percent was produced from renewable energy sources, with 2.52 percent generated by non-conventional renewable energy sources comprising hydroelectric plants with capacity under 20 megawatts (1.45 percent), bagasse (0.49 percent), biogas (0.08 percent) and solar (0.50 percent) (MINEM 2014b).

Energy competitiveness, coverage and intensity

Peru ranked first in energy competitiveness over the past three years according to the World Economic Forum (MINEM 2014a), but energy is not equally available to all. National electricity coverage increased from 57 percent in 1993 to 91 percent in 2013 (MINEM 2014b). The remaining 9 percent comprises the more remote and poorest households. Energy intensity over the 2000–13 period showed a consistent annual reduction of 1.9 percent due to more efficient energy use, greater involvement of commercial energy sources (particularly natural gas) and increased productivity in the country. In 2012, Peru had an intermediate level of energy intensity compared to other countries in the region (MINEM 2014b).

Road infrastructure

In 2013, the national highway system had a total length of 163,480 kilometres, with 133 routes in the national road network, 392 routes in the departmental road network[23] and 7,761 routes in the neighbourhood road

[23] Includes routes of regional importance that connect departmental capitals with major cities in their region.

network. Regarding the national road network, the 13 percent is paved and 87 percent is unpaved (MTC 2014). At departmental level, only 7.7 percent of roads are pave and 92.3 percent is unpaved while 16.1 percent of the departmental road network is in good condition (MTC 2012). Of the neighbourhood road network, only 2.5 percent is paved and 97.5 percent is unpaved and 7.3 percent is in good condition.

Overall, the poor condition of the rural road network is exacerbated by Peru's topography, especially the highlands, which see a lack of maintenance and are affected by climatic factors. Topography hinders the development of rural areas and contributes to the isolation of poor communities because poor infrastructure decreases access to public services and markets. Poor infrastructure is due in part to the decentralisation process. Many regional and local governments have low capacity to manage infrastructure and transport services. Resources for maintenance are insufficient because they are generally classified as current expenditure and there have been problems in the use of resources based on canon and sobrecanon (MTC 2012).[24]

Transport

Ground transport service in the country is characterised by weak institutions in the public and private sectors, informality, breach of traffic rules and precarious security that affect quality and safety. The result is a high rate of traffic accidents in the national road network, with an average of 1,631 accidents, 5,011 injuries and 822 deaths per year over the 2004–09 period (MEF 2009). Problems are more severe in areas with dirt/gravel roads. The liberalisation and deregulation of transport since the 1990s have contributed to these problems. While both motivated the growth of transport and generated competition, they also resulted in problems such as the oversupply of vehicles,[25] obsolescence of the automotive fleet, business atomisation and informal transport. Other factors include weak corporate structures, broad legislation, inadequate supervision by national, regional and local authorities, little culture of road safety and the absence of a system of passenger terminals (MTC 2012).[26]

Telecommunications

The telecommunications market in Peru has experienced significant growth in all services over time. However, there is a lack of country-wide telecommunications infrastructure, which had an estimated value of approximately US$5.5 million in 2008 (IPE 2009), meaning that several districts lack access to telecommunications services. In 2011, there were 447 districts (24.4 percent) without fixed telephone services, 149 districts (8.1 percent) without available internet services and 208 districts (11.3 percent) without mobile service coverage. In general, mobile services have experienced significant growth due to, among other things, the reduced cost of access given competition, introduction of digital technologies and entry of new service providers into the market (MTC 2012).

Previous and Ongoing Efforts

Energy

Enacted in 2000, the Law for Promotion of Effective Use of Energy Act indicated the Peruvian government's interest in promoting efficient energy use to ensure energy supply, reduce environmental impacts, protect consumers and boost national economic competitiveness. The act indicates that the Ministry of Energy and

[24] Canon and sobrecanon are income taxes of mining and oil companies paid for the exploitation of natural resources. Resources from the mining and gas canon will be used exclusively to finance or co-finance projects or infrastructure works of regional and local impact.
[25] The automotive fleet increased by approximately 58.75 percent over the 2000–10 period (MTC 2012).
[26] Instead companies have their own terminals, providing passengers with minimum safety and comfort conditions.

Mines is responsible for promoting the efficient use of energy.[27] However, the government did not become very concerned about this issue until recently. In 2014, it launched the National Energy Plan 2014-2025, which aims to make energy planning necessary and reformulate strategies for the long term.[28]

In the case of fuels, market volatility has been attenuated by a stabilisation fund for fuel prices and price bands.[29] In 2005, natural gas connections were initiated in Lima and by 2013, there were already 270,000 residential consumers nationwide. Furthermore, there is a project to increase gas reserves being implemented called Improvements of the National Energy Security and Development of the South Peruvian Pipeline, which boosts exploration activities and exploitation of natural gas and allows the valuation of potential resources lots (MINEM 2014b). Other initiatives include the replacement of electric water heaters with systems solar water heaters, the upgrading of traditional stoves (MINEM 2014b), the promotion of electricity investment in areas not connected to the network (MINEM 2015), auctions of non-conventional renewable energy (solar, wind and biomass) and the acquisition of more solar panels[30] (MINEM 2014a).

To strengthen Peru against unexpected changes, the National Energy Plan 2014-2025 proposes interconnections with neighbouring countries and the creation of a regional market that incorporates the benefits of climate complementarity, better energy conditions and the harnessing of reserves (see MINEM 2014b). Projects with Ecuador, Brazil, Chile, Colombia and Bolivia will be strengthened. Progress has been made on the design of a 500-kilovolt electrical connection with Ecuador and a 220-kilovolt emergency link. The new connection will allow the permanent exchange of surplus electricity at market prices in each country. In the future, it is hoped that Peru's energy sector – besides supplying domestic demand – will sustainably exchange energy. Studies on the subject were conducted in 2014 by the Inter-American Development Bank's Andean Electrical Interconnection System for the Andean Community.

Transport

Between 2006 and 2007, the Ministry of Transport and Communications enacted small reforms to boost its performance. First, the Law on Organisation and Functions of the Ministry of Transport and Communications was approved, which simplified the organisational structure of the ministry, reduced paperwork, eliminated requirements and reduced time needed and costs. It also clarified the ministry's steering role and exclusive and shared functions. In 2006, the Special Decentralised Transportation Infrastructure Project "Provías Descentralizado" was created to support regional and local governments in the management, rehabilitation and maintenance of departmental and local roads. In addition, the Superintendency of Land Transport of People, Cargo and Freight was created to strengthen the investigation of transport services at the national level, with the ultimate aim of reducing the high rate of accidents in the country (MTC 2012).

Regarding road maintenance activities, the Road Conservation Management System is being outsourced. Through the management of operation and maintenance contracts, this system aims to achieve an adequate and continuous level of traversability of the national road network that includes routine maintenance, periodic maintenance and the addressing of emergencies for periods of up to five years. Local governments have implemented road maintenance through rural organisations formed by the residents of communities surrounding roads. Therefore, maintenance serves a dual purpose: (i) maintaining standards of road

[27] Its responsibilities include conducting a permanent diagnosis of the problems of energy efficiency, developing and implementing energy efficiency programmes and promoting efficient energy consumption in isolated and remote areas.
[28] While there is no autonomous body responsible for energy planning, the National Energy Plan 2014-2025 had the support of the Advisory Committee on Energy formed by specialists in the field.
[29] Established in 2004 by Urgency Decree N° 010-2004.
[30] In November 2014, 500,000 new solar panels were acquired.

traversability and (ii) generating permanent local employment and better incomes for rural families (MTC 2014).[31]

As part of the audit process for transport services for passengers and cargo, the "Tolerancia Cero" programme has been implemented in conjunction with regional governments, which has contributed to a reduction in the level of non-compliance. Additionally, speeding has been mitigated because vehicles must equip Global Positioning System (widely known as GPS) navigation devices. This requirement has reduced the number of accidents on roads. Moreover, the "Programa para la Renovación del Parque Automotor" established the maximum number of years that public transport vehicles can be in service at 15 (MTC 2012). In addition, local government or private initiatives have built ground terminals over the past four years (MTC 2014).

Telecommunications

Regarding telecommunications infrastructure, the Ministry of Transport and Communications has established an investment fund with the aim of providing universal access to telecommunications services. It is first focusing on rural communities with a social interest. There are plans to expand coverage by laying 690 kilometres of fibre optic cables in the highlands and jungle regions of the country (MTC 2014).

National Priorities for Ensuring Sustainable Energy and Developing Infrastructure for All

According to its PESEM for 2012–16 (see MINEM 2012), the Ministry of Energy and Mines has four specific objectives:

1. Promote sustainable and competitive development of the energy sector, prioritising private investment and diversification of the energy matrix. This includes rural electrification, strengthening the oil and gas sector and increasing the use of natural gas.

2. Promote mining as a contributor to sustainable development and social inclusion in the country. This includes the promotion of mining activities, formalisation of illegal mining activities and provision of efficient service in granting mining concessions.

3. Promote the preservation and conservation of the environment within the energy and mining sectors by fostering social inclusion and harmonious relations between companies and civil society. This includes strengthening and facilitating relations between the government, companies and communities involved in mining, encouraging environmental protection during mining and promoting community environmental awareness.

4. Promote these issues through a transparent, efficient, effective and modern decentralised organisation, allowing fulfilling its mission through systematized and computerized processes, with motivated and highly qualified personnel and a culture of planning oriented to a quality service for the user. For it is planned to strengthen the image of the institution and the decentralization of the mining sector.

The National Energy Plan 2014-2025 outlines other priorities of the Ministry of Energy and Mines: (i) ensure a competitive energy supply, (ii) ensure security and universal access to energy supply and (iii) develop energy resources optimally with minimal environmental impact and low greenhouse gas emissions within a framework of sustainable development. In addition, the plan aims to boost energy efficiency through a

[31] In 2013, local governments through their respective Provincial Road Institutes engaged the services of 857 rural organisations for routine maintenance of 16,866.6 kilometres of roads (MTC 2014).

decrease in external dependency, an increase in competitiveness of the energy sector, fewer environmental impacts and improvement in access to energy. Diversifying the energy matrix by increasing the use of natural gas is considered essential for mitigating climate change and reducing emissions of greenhouse gases (MINEM 2014b).

Meanwhile, the Ministry of Transport and Communications has its own priorities, which were established in its PESEM for 2012–16 (see MTC 2012):

1. Having transport infrastructure that contributes to strengthening internal and external integration, the development of logistics corridors, the process of territorial planning, environmental protection and the improvement of economic competitiveness.

2. The availability of safe, efficient and quality transport services, incorporating the logistics of transport, environmental protection and social inclusion.

3. Expanding the coverage of telecommunications services with efficiency, quality and a social interest.

4. Increasing the participation of the private sector through public-private partnerships and direct investment in infrastructure, transport and telecommunications.

5. Actively participating in the decentralisation process aimed at the development of capabilities to improve the management of transport by sub-national governments.

6. Having organisational structures and modern standards, optimised internal processes and skilled human resources, using information and communications technologies and results-based management and improving management within government institutions.

Table 5 presents the global and national targets and indicators for Peru. The proposed global indicators are largely relevant for the Peruvian context, except for the indicator "# of hours per day households have access to electricity on average," which is not adequate because access to electricity is not necessarily limited in time by hours. The research team has proposed a more adequate national indicator.

Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy

The research team considered it relevant for Peru to measure adequate access to electricity. After discussions with stakeholders, adequate electrification was judged to be total – or quasi-total – service in a week. For that reason, the national indicator considers good service to be when the population has access to electricity all day for six to seven days per week. A similar indicator was proposed in the PESEM of the Ministry of Energy and Mining (MINEM 2012) and the PENDES (INEI 2013b). The research team has also proposed indicators on access to other services such as potable water and sanitation services. These indicators were found in the PENDES (INEI 2013b).

Improve maintenance of public transport infrastructure

According to the estimates of private institutions, the infrastructure gap was approximately US$37.8 million in 2008 (IPE 2009), which represents approximately 30 percent of gross domestic product (GDP). Despite economic progress, investment in infrastructure and access to basic services are still insufficient. This is evidenced by the low indexes in competitiveness and infrastructure. According to the World Economic Forum,

Peru is below the world average. In addition, logistics costs are very high, reaching about 29 percent of the total value of the products, while the average being about 24 percent in Latin America and only 9 percent in Organisation for Economic Co-operation and Development countries. Hence, the percentage of paved roads in the national road network and rehabilitated roads in the departmental road network have been proposed as national indicators. Both were found in the PESEM of the Ministry of Transport and Communications (MTC 2012).

Ensure access to safe, efficient and affordable mobility

Some of the factors responsible for greenhouse gas emissions are associated with human activity, such as the burning of fossil fuels in engines. For this reason, the team has proposed the national indicator "Antiquity of vehicle fleet," which was also found in the PENDES (INEI 2013a). As mentioned above, Peru is a country with a high number of traffic accidents. The team has thus proposed the national indicator "Number of deaths from traffic accidents." This indicator was found in the PESEM of the Ministry of Transport and Communications (MTC 2012).

Table 5. Ensure sustainable energy and develop infrastructure for all: Targets and indicators

Target	Indicator
Global	
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)
	Average bandwidth speed (megabits/second)
	% of the population with access to an all-season road
	% of adults with an account at a formal financial institution
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average
	Rate of improvement in energy intensity
	Share of the population with access to modern cooking solutions (%)
	Share of renewable energy to total energy consumption
National	
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Population with access to adequate electricity (all day, 6–7 days per week)
	Population with access to adequate services for potable water
	Population with sanitation services
Improve maintenance of public transport infrastructure	% of paved roads in the national road network
	% of rehabilitated roads in the departmental road network
Ensure access to safe, efficient and affordable mobility	Antiquity of vehicle fleet
	Number of deaths from traffic accidents
Ensure full access to developed infrastructure and communication technology	Localities with access to mobile services
	Localities with access to internet services
Cross-cutting: Establish a sustainable, healthy and resilient environment for all	
Publish and use economic, social and environmental accounts in all governments and companies	% of environmental impact assessments for mining projects approved at the provided time
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Improve relationships between the government, companies and communities	Number of actions, programmes and projects to prevent socio-environmental conflicts
	Number of mechanisms for citizen participation

	Accreditations for small mining producers and artisanal mining producers
Promote rational, orderly and sustainable occupation of national territory	Local governments with approved territorial management instruments
	Households with property titles

Ensure full access to developed infrastructure and communication technology

Communication can promote development and opportunities among the people with access to adequate infrastructure and communication technology. In Peru, not all districts have access to mobile and internet services. It is necessary to ensure access to such services, so the team has proposed national indicators on localities with access to mobile and internet services. Both were found in the PENDES (INEI 2013b).

Establish a Sustainable, Healthy and Resilient Environment for All

Current Status

At the global level, one of the most difficult MDG targets to meet has been the integration of sustainable development principles into national policies and programmes and reversing the loss of environmental resources. The loss of environmental resources persists, characterised by a high rate of deforestation, an increase in carbon dioxide emissions (by 46 percent between 1990 and 2010) and overexploitation of marine fish populations. At the same time, protected areas have grown to reduce the loss of biodiversity and the rate of loss. Between 1990 and 2012, protected areas increased from 8.9 percent to 14.6 percent of the world's land surface and from 4.6 percent to 9.7 percent of coastal waters (up to 12 nautical miles). The MDG on environmental sustainability also includes a target on halving the proportion of people without sustainable access to safe drinking water and basic sanitation. This target on safe drinking water has been reached, with the proportion being reduced from 24 percent to 11 percent between 1990 and 2011. Efforts to improve access to basic sanitation, however, will need to be redoubled. The proportion of people without access to basic sanitation only decreased from 51 percent to 36 percent between 1990 and 2011 (the target was 25 percent). Finally, the world has reached the target of considerably improving life for at least 100 million slum-dwellers. Between 2000 and 2010, more than 200 million people accessed better sources of water, sanitation installations, lasting shelters or sufficient space to live (UNDP 2013b).

Peru is a country with much biodiversity. It has an area of 128.5 million hectares, of which 57 percent is forested. Of the total land area, about 72 million hectares are tropical forests in the Amazon basin, on the Pacific coast and in valleys. With this large expanse of forests, Peru ranks the ninth most forested country and has the fourth largest area of tropical forests. This expanse, however, has been declining in recent decades due to deforestation (MINAM 2012b). Overall, the country has not seen great progress in terms of integrating sustainable development principles into national policies and programmes and reversing the loss of environmental resources. GDP per unit of energy use remains low despite growth, while emissions of ozone-damaging substances are increasing and general trash management is inadequate, with trash rarely recycled and instead often thrown in the street or burned (UNDP 2013b). This situation is partly due to Peru not having specific authorities in charge of ensuring environmental sustainability until recently.

Previous and Ongoing Efforts

Peru's creation of the Ministry of Environment in 2008 has been its biggest effort and key to progress on environmental sustainability. This institution is responsible for promoting environmental sustainability in the country and preserving, protecting, restoring and ensuring environmental conditions, ecosystems and natural resources (MINAM 2015). The creation of the National Service of Natural Protected Areas and National Authority of Water has also been very important. The National Service of Natural Protected Areas is responsible for establishing technical and administrative criteria for the conservation of protected areas and maintenance of biodiversity (SERNANP 2015). The National Authority of Water is responsible for carrying out actions for the multi-sectoral sustainable use of water resources from river basins within the framework of integrated natural resources management and the management of national environmental quality through strategic partnerships with regional governments (ANA 2015). More specific initiatives for the management of greenhouse gas emissions, solid combustibles, solid resources, water resources and air quality have also been launched (UNDP 2013b).

Unlike with the other MDGs, there has been little progress on environmental issues. In terms of reducing the loss of biodiversity and seeking to achieve a significant reduction in the rate of loss by 2010 as stipulated in the MDG framework, there has been an annual loss of 150 thousand hectares of Amazonian forest since 1990, though the proportion of forest area loss only decreased by a little over 1 percent until 2010. Moreover, species in danger of extinction make up 3.3 percent of fauna and 3.8 percent of flora (UNDP 2013b). There is much room to improve in the future.

In this context, the Ministry of Environment's National Programme for Forest Conservation is central for the mitigation of climate change. This programme seeks to "conserve, order, and manage 54 million hectares of forest" (MINAM 2014a). This strategy involves identifying forest ecosystems where the programme will take action, coordinating efforts among forest actors in the country, strengthening the capacities of stakeholders and promoting sustainable production systems, with the objectives being the generation of revenue for the population and the reduction of deforestation. Results will be assessed in the future.

Regarding disaster resilience, Peru is not prepared enough for the future. In 2008, the National Civil Defence Institute of Peru reported 4,545 emergencies, 84,410 victims, 1,368,056 affected, 34 missing, 273 injured, 165 dead, 15,543 houses destroyed, 151,794 houses damaged, 98 schools destroyed, 1,185 schools affected, 18,098 people with lost crops and 103,588 people with affected crops (INDECI 2009). Over the past decade, there have been recurring natural events such as heavy rains, floods, high winds, frosts and landslides, which have accounted for 48 percent of all emergencies. Flooding, especially in regions with hot climates, causes the most damage. Although it is well known that natural disasters will occur again, the government has not implemented necessary adaptation policies. For that reason, the jungle region of Loreto has the largest number of flood victims (MINAM 2012b).

National Priorities for Establishing a Sustainable, Healthy and Resilient Environment for All

The priorities of the Ministry of Environment are based on consensus. They were discussed, renewed and approved by a multi-sectoral commission which included the ministers of agriculture, culture, energy and mines, economy and finance, health, production, development and social inclusion and environment and the president of the Council of Ministers. Consensus strengthens citizens' confidence in the role of government in environmental protection, the sustainable management of natural resources and the conservation of species and ecosystems. The commission approved four "strategic axes of environmental management" that define the full though gradual incorporation of the environmental dimension into public policies (MINAM 2012b):

- A sovereign state and guarantor of rights;
- Improving life quality through a healthy environment;
- Harmonious use of natural resources; and
- Healthy natural heritage.

The first axis refers to reducing socio-environmental conflicts, increasing environmental citizenship and the environmental performance of the audit function. The second refers to the abatement of pollution in drainage basins, air and soil. The third focuses on reducing the vulnerability of the population at risk of natural disasters through territorial ordering and maintenance of ecosystems. The fourth refers to the capacity to adapt to climate change, reduce deforestation, reduce greenhouse gas emissions, conserve biodiversity and preserve the integrity of fragile ecosystems (MINAM 2012b).

Taking into account the priorities of the Ministry of Environment, the majority of the proposed global targets and indicators are very relevant for Peru. Due to the country's diverse microclimates and high vulnerability to

climate-related disasters, it is important to measure the number of disaster deaths. The proposed national indicators include another indicator on this issue. The indicators that measure net loss in forest area and trends in coverage of protected areas are also pertinent. Notably, Peru is making efforts to have national government publishing follow the System of Environmental-Economic Accounting in the near future (MINAM 2011). The share of large tax unit taxpayers using integrated reporting is not so relevant for Peru because the country does not have a culture of integrated reporting. Table 6 presents the proposed global and national targets and indicators. There are many national indicators proposed under this goal area because more efforts are needed to achieve sustainable development in Peru.

Table 6. Establish a sustainable, healthy and resilient environment for all: Targets and indicators **Target**	**Indicator**
Global	
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)
	Trends in coverage of protected areas
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting[32]
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting[33]
National	
Improve air and water quality	Air quality
	Drainage basins that pass environmental quality assessment
Address climate change	Rate of greenhouse gas emissions intensity
Safeguard ecosystems and biodiversity	Area reforested annually
	Mining environmental liabilities
	Investment in protected natural areas per hectare
Implement integrated solid waste management	Per capita spending on management of solid waste
Build resilience and reduce vulnerability to natural hazards	Economic losses in infrastructure due to natural disasters (% of GDP)
Publish and use economic, social and environmental accounts in all governments and companies	% of environmental impact assessments for mining projects approved at the provided time
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Improve relationships between the government, companies and communities	Number of socio-environmental conflicts

[32] Integrated reporting is a process founded on integrated thinking that results in a periodic integrated report by an organisation about value creation over time and related communications regarding aspects of value creation. An integrated report is a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term (IIRC 2013). Large taxpayers are very different from other categories of taxpayers and present certain significant risks to effective tax administration. Key characteristics of large taxpayers include concentration of revenues, complexity of business and tax dealings, withholding agent or intermediary role, use of professional tax advisors and possession of in-house tax organisation. Businesses may be publicly listed corporations, multinational companies or private groups (OECD 2009).

[33] This is primarily a "yes-no" indicator and has binary variables that can only have two possible values.

Improve air and water quality

Air pollution is the presence of chemicals and particles in the atmosphere that alters its composition, leading to direct effects on human health, other living creatures and ecosystems. In addition, air pollution increases health-care spending and environmental degradation. In Lima, over 6,000 people die per year from causes related to particulate matter between 2.5 and 10 micrometres in size. This phenomenon occurs mainly in big cities, where vehicles and industrial activity emit pollutants. Lima and Callao are among the cities with the worst air quality levels in Latin America (MINAM 2012b). The national indicator that has been included was found in the PESEM of the Ministry of Environment and the environment section of the PENDES.

The pollution of water resources alters ecological functions, reduces biodiversity and damages aquatic habitats, marine ecosystems and human health. Direct ingestion of contaminated water and indirect ingestion through food consumption have high risks of parasitic, viral and bacterial infection. Of the existing drainage basins in Peru, 52 are contaminated due to municipal waste and other industrial pollutants in coastal areas (MINAM 2012b). The National Authority of Water has established quality standards for drainage basins. The indicator that has been included was also found in the PESEM and PENDES.

Address climate change

Climate change is quite relevant due to its disastrous consequences, which include changes in sea surface temperature, salinity and elevation and increases in the frequency, intensity, duration and timing variation of extreme weather events such as flooding, drought, frost, hail, landslides, avalanches, deglaciation and desertification. The net effect of these changes is the greater vulnerability of the global population and decline of the global economy. Hydrometeorological phenomena increased more than six times from 1997 to 2006 and Peru has lost 22 percent of the surface of its glaciers over the last 25 years (MINAM 2012b).

By 2030, an increase of 1°C in temperature and 10 percent greater variability in precipitation is expected, while by 2050, an increase of 2°C in temperature and 20 percent greater variability in precipitation is anticipated (Vargas 2009). Such changes are caused by the greenhouse effect, a phenomenon that occurs naturally in the atmosphere due to gases such as carbon dioxide, methane, nitric oxide and water vapour. Due to the increase of these gases in the atmosphere over decades, an increase in the global temperature level has been observed, which affects the balance of ecosystems. As mentioned, some of the factors responsible for increased greenhouse gas emissions are related to human activity. Thus, an indicator on greenhouse gas emissions has been included, with a similar indicator being found in the PESEM.

Safeguard ecosystems and biodiversity

The main source of greenhouse gas emissions at the national level is the deforestation of the Amazon rainforest to expand the agricultural frontier. On the other hand, the main source of greenhouse gas removal is changes in forest biomass and other wood stocks. It is therefore important to closely follow the issue of deforestation. The rate at which the rainforest was deforested between 1990 and 2000 is approximately 150,000 hectares per year, which resulted in the annual emission of 57 million tonnes of carbon dioxide equivalent (MINAM 2012b). This problem is explained by the limited knowledge and commitment to the conservation of forests in Peru, the limited development of good practices and sustainable forest management, insufficient capacity in the management of forests threat various levels of government, limited capacity control system and limited control of the use of forest resources. For these reasons, the research team has included an indicator on area reforested annually.

Furthermore, ecosystems within natural areas are affected when companies do not keep track of their impacts on the environment. Among the factors causing the decline of ecosystems are habitat loss, overuse

of resources, pollution and displacement of native species by the introduction of exotic species (MINAM 2012b). An indicator on investment in protected natural areas has therefore been included.

Moreover, mining has been an economic activity in Peru for centuries and exploiting various minerals and metals inevitably generates waste. Dated mining practices, inadequate management of waste and the lack of precise rules governing mine closure have resulted in the accumulation of mining environmental liabilities across large areas, particularly pollution that can put public health at risk. Mining environmental liabilities limit the use of soils, affect the quality of surface water and groundwater, degrade wildlife, and restrict the rights of local people to use these resources without health risks. That is why it is very important to include a national indicator on mining environmental liabilities.

Implement integrated solid waste management

Waste management is understood as the collection, transportation, processing, treatment, recycling or disposal of waste material, which is usually produced by human activity, in an effort to reduce harmful effects on human health and the environment. Although waste management is not currently a priority of the Ministry of Environment, indicators on the issue are found in the environment section of the PENDES (see INEI 2013b) due to the importance of waste management in urban areas. Of these indicators, the research team has chosen per capita spending on management of solid waste because in many cases a municipality may have designed a plan for managing solid waste but not necessarily fulfilled it (the indicator allows the aggregation of information on this issue).

Build resilience and reduce vulnerability to natural hazards

In Peru, more than 46 percent of the country (i.e., 36 percent of the total population) is highly or very highly vulnerable to natural disasters, the magnitude and frequency of which are determined by geographical location and the physical characteristics of territory (MINAM 2012b). The research team has included a national indicator on economic losses in infrastructure due to natural disasters to complement the global indicator on disaster deaths.

Environmental accounts of mining companies

Due to the extensive mining activity in Peru and harmful consequences of mining environmental liabilities, it is necessary for each mining company to report the environmental impacts of its operations. An environmental impact assessment is a technical administrative procedure used to identify, prevent and interpret environmental impacts. Mining companies can propose an environmental project and the Ministry of Environment can accept, reject or modify it. The assessment includes consultations with communities and the Agency for Assessment and Environmental Control of Peru. All mining companies operating in Peru must conduct such an assessment, but not all of them actually do or it takes longer than expected to submit. Therefore, the research team has included an indicator on this issue. This indicator was also found in the PESEM of the Ministry of Environment (MINAM 2012b).

Establish Open, Accountable, Inclusive and Effective Institutions, Rule of Law and a Peaceful and Inclusive Society

Current Status

Governance and Institutions

Peru experienced a period of sustained growth between 2002 and 2012, with GDP increasing by 6 percent annually on average. During the same period, the country's rank on the UN Development Programme's Human Development Index increased from 0.67 to 0.74 (UNDP 2013c). However, economic growth has not been uniform and equitable across regions and urban and rural areas (Contraloría General de la República 2014). Academics point out that Peru's major problem is institutional weakness (Acemoglu and Robinson 2012; Ghezzi and Gallardo 2013). Such weakness is reflected in the figures of the World Economic Forum, which ranks Peru at number 61 in the Global Competitiveness Index 2013–2014 and at number 109 in the subcategory of institutions (WEF 2014). According to Daron Acemoglu and James Robinson (2010), Peru's institutions are "extractive" and not "inclusive," hence Peru will grow, but development will not be sustainable.

The "Peruvian paradox" refers to the fact that, despite almost a decade of economic growth and improvement in indicators such as poverty and unemployment,[34] citizens expressed a high degree of dissatisfaction with political institutions and their representatives. Despite some improvement in 2012, the levels of support for democracy, political tolerance, system support and trust in political institutions in Peru are among the lowest in Latin America. Notably, much distrust is observed towards democratic institutions. Only 32 percent of Peruvians have trust in political parties, 36.6 percent in Congress and 39.4 percent in the justice system and 40.1 percent in the National Police of Peru (Carrión, Zárate and Seligson 2012). The presidency, meanwhile, tends to see a more variable level of confidence, usually linked to the popularity of the president in office. Institutions that see relatively higher approval levels include the Catholic Church (60.5 percent), media (58.7 percent) and Armed Forces (52 percent). Other institutions, such as the Office of the Ombudsman created in 1993[35] and electoral organisations established after 2000, have escaped assessment.

Regarding support for the government, the average value of the index measuring support for the role of the state is 76.8 points in Peru, while values are 80 or higher in 14 countries in the region in 2012.[36] Disaggregating the index into its five components, the lowest level of support, 41.6 percent, was in relation to the question of whether the courts guarantee a fair trial, while 46.6 percent believed that their basic rights are protected. Trends in political tolerance have been different. Tolerance levels have declined steadily, falling from 53.6 percent in 2006 to 43.8 percent in 2012, their lowest point. Regarding support for democracy, Peru was ranked 23rd out of 26 countries with the support of 63.6 percent of citizens, a level of support that has largely remained the same since 2006. Finally, the percentage of citizens who expressed support for the legal order was 57.7 percent., up from 53.2 percent in 2006 (Carrión, Zárate and Seligson 2012). To achieve sustainable development, it is necessary to end the "Peruvian paradox."

[34] Although the percentage of people who admit that their personal economic situation has improved quadrupled between 2006 and 2012, 64 percent described their economic situation as normal and 25 percent described theirs as "bad" or "very bad" in 2012 (Carrión, Zárate and Seligson 2012).
[35] The Office of the Ombudsman is an independent body created by the Political Constitution of Peru of 1993. Its mandate is to protect the constitutional and fundamental rights of the individual and the community, monitor compliance with the duties of public administration and provide public services to the population.
[36] There is a relatively favourable attitude to the government's participation in society and the economy, with the exception of the ownership of the most important companies in the country. However, the attitude in Peru is not as favourable as those in other countries in the region (Carrión, Zárate and Seligson 2012).

Decentralisation

Minister of Production Piero Ghezzi and Minister of Transport and Communications José Gallardo identified institutional weakness, including “state absence” in various parts of the country, as a serious constraint on development. Also, they argued that conceiving of a results-oriented government at the service of the population is not possible if it is not fully decentralised. The decentralisation process was initiated in 2002 and many powers have already been transferred to regional and local governments, but the process has garnered many criticisms. The problem is that transfers of powers have not been accompanied by enough resources, capabilities and controls for expenditure quality according to regional and local diversity. As a result, the performance of sectors as well as regional and local governments has been mixed (Contraloría General de la República 2014).

Peru was ranked 25th out of 26 countries with 41.2 percent of citizens expressing trust of local governments, while 39.8 percent indicated that they trust regional authorities (excluding Metropolitan Lima) (Carrión, Zárate, and Seligson 2012). Notably, various local authorities were subject to public consultation processes (4,712 to be exact) between 1997 and 2013, with 279 mayors and 1,273 counselors having their positions revoked (*RPP Noticias* 2014).

Regarding public investment, there is still a long way to go to improve capabilities and expenditure quality at all levels of government. Regional governments executed 76 percent of the Modified Institutional Budget in 2012, while the average over the 2005–12 period was less than 60 percent. The case was the same for local governments from 2007 to 2012. In general, regional and local governments have limited capabilities to provide effective, efficient and transparent public services according to the needs of citizens (Contraloría General de la República 2014).[37]

Four aspects of the decentralisation process in Peru deserve to be highlighted. First, the decentralisation process did not have an appropriate institutional arrangement when it was initiated. The process was accelerated and, despite various efforts, the government was unable to clarify responsibilities and redistribute the functions of public institutions for more efficient management at all levels of government. Second, the rules were developed without a diagnosis of what is happening inside the country and without prior public consultation. Moreover, the process was not designed to strengthen value chains. Consequently, their objectives did not fit with the strategic plans.[38] Third, ministries did not develop a comprehensive plan for capacity building and the training plan that was established was not permanent. As a result, sub-national governments suddenly received powers and functions without the necessary inputs or adequate capacity for timely, effective and efficient service provision. Finally, the institutional arrangement to promote decentralisation was further weakened when the National Decentralisation Council was dissolved and the Decentralisation Secretariat was created. The Decentralisation Secretariat lacks technical, administrative, political and economic autonomy (Contraloría General de la República 2014).

[37] In response, the General Comptroller of the Republic proposes: (i) use results-based budgeting, (ii) identify value chains, (iii) determine the capacity for effective management of sub-national governments and (iv) allocate budget resources based on outputs and outcomes that people expect to receive to meet their unmet needs and not according to inertial or historical requirements of institutions. If necessary, the government should temporarily assume the management of the powers transferred to entities that they are not able to exercise. All of this must be done by coordinating with ministries or agencies. Notably, the government faces the challenge of establishing a monitoring and evaluation system for all public entities at the national, regional and local levels of government (Contraloría General de la República 2014).

[38] In addition, it should be noted that Peru does not yet have a system of indicators for monitoring and ongoing evaluation to measure the performance of public institutions. Also, the accreditation system is more a formality than an efficient mechanism, with real capacity gaps existing in the regions and municipalities (Contraloría General de la República 2014).

Corruption

According to Transparency International's most recent Corruption Perceptions Index (see Transparency International 2014), Peru ranked 85th out of 175 countries with a score of 38. Furthermore, according to the Global Corruption Barometer, Peru ranked seventh in perceptions of corruption with an average of 76.9, an improvement from being ranked third in 2010. This improvement was due to a small decrease in the average of perceptions that corruption is widespread among public officials in Peru between 2006 and 2012, with about 80 percent of the population believing that corruption is somewhat or very widespread in the country. The improvement may be in part due to the creation of supervisory mechanisms. However, the percentage the population who perceive that corruption is the country's main problem increased from 6.5 percent in 2006 to 12.6 percent in 2012.[39] Interestingly, the institutions with which there is greatest discontent are, paradoxically, those charged with combating corruption in the public sector – the judiciary and Congress (Carrión, Zárate and Seligson 2012).

Peru has had high levels of corruption at various times in its history. Since the 1980s, the Peruvian government was widely seen as inefficient and corrupt, in a context of economic crisis and crisis in public security (Carrión, Zárate and Seligson 2012). The year 2000 was marked by events that uncovered a web of high-level corruption and precipitated the fall of the government of Alberto Fujimori (see *El Comercio* 2014a). These events undermined the government's already precarious legitimacy. A vast, complex network of corruption, which was organised within the National Intelligence Service and reached all levels of government, included representatives of Congress, members of the judiciary, the National Elections Board, the armed and police forces and heads of media organisation as either in collusion or complicit (Degregori and Meléndez 2009). A transitional government was installed and launched institutional, legislative and criminal mechanisms were launched to prevent, control and eventually punish all forms of corruption. Regardless, the last three presidents have been accused of corruption after finishing their terms (*La República* 2013). Moreover, some regions are plagued by serious corruption where various entities have been captured by certain interest groups, with the most remarkable cases being in Ancash, where the regional president was jailed (see Cabral 2014; *Perú21* 2014) and regional councillors have been accused of irregularities (see *RPP Noticias* 2015), and Cajamarca, where the regional president was also jailed (see *El Comercio* 2014c). Perhaps distrust in democratic institutions is relatively high for these reasons (Carrión, Zárate and Seligson 2012).

Social Conflicts and Citizen Participation

Since 2004, the Office of the Ombudsman has been publishing monthly reports on social conflict. The term "social conflict" has come to indicate conflictual relations between the government, public and private sector. By January 2015, 210 social conflicts had been recorded, of which 159 were active and 51 were latent. Only one case related to the Youth Employment System had been resolved and six new cases were opened. The regional picture shows that Ancash remains the region with the most conflicts (24 cases), followed by Apurimac (22), Puno (19) and Cusco (16). The latter region has the distinction of having all cases active. Notably, environmental conflicts were the most numerous, with 140 cases (96 cases, or 68.6 percent, were related to mining and 21 cases, or 15 percent, were related to hydrocarbons (Defensoría del Pueblo 2015).

Social conflicts are generally local and sporadic, but they have had more impact and been more coordinated in recent years as they have acquired a regional character and have focused on social and environmental issues (Carrión, Zárate and Seligson 2012). In some cases where conflicts have lasted a long time, people have been injured and even killed. One conflict that should be highlighted is the "Baguazo," a military

[39] Increasing perceptions of corruption as well as violence and insecurity as problems may be due to the decline in the salience of economic problems.

intervention related to indigenous opposition to oil development in the Amazon rainforest in which 33 people died in 2009 (see *La República* 2014). Despite economic growth, social dissatisfaction persists (see Grompone and Tanaka 2009). This may be due to: (i) perceptions of incompatibility between economic activities and lifestyles, (ii) access to private economic benefits and public resources and (iii) management of public resources, which includes sensitive issues such as privatisation of state-owned enterprises (Tanaka, Zárate and Huber 2011). Moreover, the population has a lack of confidence in the government's ability to prevent contamination and degradation of living spaces (Defensoría del Pueblo 2007).

Regarding citizens' participation in protests, which have been increasing in recent years, Peru ranked third in Latin America in 2012, with 13.1 percent of Peruvians saying that they have participated in a protest or strike. However, citizens' support for direct actions is relatively low in the region at 21.6 percent, ranking Peru in 21st position . In the case of participation in municipal matters, the percentage of people who participated ranged between 12 and 14.7 percent in 2012, while 3.2 percent participated in the participatory municipal budget (Carrión, Zárate and Seligson 2012).

Access to Justice

Peru is considered to be a country with a long legal tradition, but authorities and citizens do not always respect laws. As mentioned, the judicial system weak and one of the least trusted institutions in the country. Moreover, the Peruvian bureaucracy is considered to be too large and administrative processes take too long (SERVIR 2012). For example, criminal proceedings last about 959 days on average, according to a review of judiciary records by a private consulting firm (APOYO Consultoría 2012). Moreover, the process of getting a conviction is slow (APOYO Consultoría 2012) and it is widely agreed that prisons must be better equipped to reintegrate prisoners into society (INPE 2014)

Political Violence

Between 1980 and 2000, Peru experienced politically motivated violence and terrorism, which included armed conflict, by the Communist Party of Peru, widely known as the Shining Path. In 2001, the Peruvian Truth and Reconciliation Commission was created and its main objective was to understand the political context during this period. The commission presented its final report in 2003, which described and analysed the context and made recommendations in order to avoid such events in the future. Armed conflict had major impacts and costs, both human and economic. The estimated cost in human lives was around 69,280 people dead or missing (CVR 2003). Unlike similar commissions established in other countries, the Peruvian commission was not unanimously accepted by society. Certain sectors have been rather critical in recent years, including the church, the military, political parties and supporters of the Shining Path (*Agence France-Presse* 2008; *Perú21* 2012).

Remnants of the Shining Path remain (see CVR 2003). Since 2003, "Proseguir" a militant faction of the Shining Path, has continued armed conflict[40] in the Valley of the Apurímac, Ene and Mantaro Rivers (US Department of State 2006). The government says "Proseguir" acts in alliance with drug traffickers. Further, there is a new group called the Movement for Amnesty and Fundamental Rights, the purpose of which is to press for a "political solution" to overcome what it calls "the problems arising from the internal war" by providing a "general amnesty to all political prisoners in the country." The movement, which has bases at several universities, has been seeking registration as a political party in Peru, but the National Elections Board denied it (*La República* 2012). The movement's spokesperson said that it is not part of the Shining

[40] See, for instance, *Panamericana* (2008).

Path (Sandoval 2012), while others, including the former president of the Peruvian Truth and Reconciliation Commission, have argued otherwise (see *Andina* 2012).

Human Rights and Discrimination

One worrisome aspect in Peru is discriminatory attitudes. With respect to poverty and marginalisation, 28.3 percent of recently surveyed respondents agreed that poverty is associated with skin colour or cultural aspects. There was also a moderately high percentage who agreed that people who receive social assistance are lazy. Support for affirmative action policies is among the lowest in Latin America at 46.9 percent.[41] On the other hand, 35.7 percent of citizens agreed that they would support homosexuals running for public office, while 65.8 percent would support the nomination of people with disabilities (Carrión, Zárate and Seligson 2012). Additionally, the First National Survey on Human Rights conducted in 2013 revealed 81 percent of Peruvians agreed that "discrimination happens all the time and nobody does anything" and 11 percent disagreed with the statement. However, 45 percent of respondents agreed that "homosexuals should not be school teachers," while 59 percent opposed homosexuals having the right to civil marriage and 29 percent were in favour. Similarly, 52 percent agreed that they would not "hire a person with HIV-AIDS" and 55 percent would not "hire a person who has been in jail" (MINJUS 2013). These figures show the scale of discriminatory attitudes in the country.

Notably, surveys indicate 61 percent of Peruvians think that child rapists do not deserve human rights and protections, while 31 percent think the opposite. In addition, 60 percent think that the country should institute the death penalty for committing terrorist acts, while 79 percent think that child rapists deserve the death penalty (MINJUS 2013). These figures show that Peruvians' attitudes depend on the type of offense and some people are willing to restrict or withdraw human rights and protections.

Citizen Security

Violence and insecurity are major problems in Peru. The percentage of the population who consider crime and insecurity to be the largest problem in the country increased from 10.7 percent in 2006 to 30.7 percent in 2012. Peru ranked first in the region regarding perceptions of insecurity, averaging 48.6 percent across the country. When the comparison is limited to national capitals, Lima ranked second in the region with 53.9 percent. However, there have been changes over time and perceptions of insecurity in 2012 were lower than in 2010 and significantly lower than in 2006. Considering personal crime reported by the respondent, including crime and victimisation by home staff, Peru ranked second in the region (Carrión, Zárate and Seligson 2012).

Gender Equality

Regarding MDG 3, women occupied 21 percent of chamber seats in national parliaments (lower house or single chamber) in 2013, in contrast with 14 percent in 2000, in line with support from country quota systems. In Peru, the proportion of seats occupied by women in Congress increased considerably between the elections of 1990 and 2006 from 5 percent to almost 30 percent. However, the proportion decreased to nearly 21 percent in the elections of 2011 (UNDP 2013d). Regarding perceptions, 33.1 percent of Peruvians think that men make better political leaders than women, while 60.8 percent support gender quotas in lists of candidates, one of the lowest levels of support in Latin America (Carrión, Zárate and Seligson 2012).

[41] Surveyed respondents were asked if they agreed or disagreed with the following statement: "Universities should reserve seats for darker skin students, even if it means excluding other students."

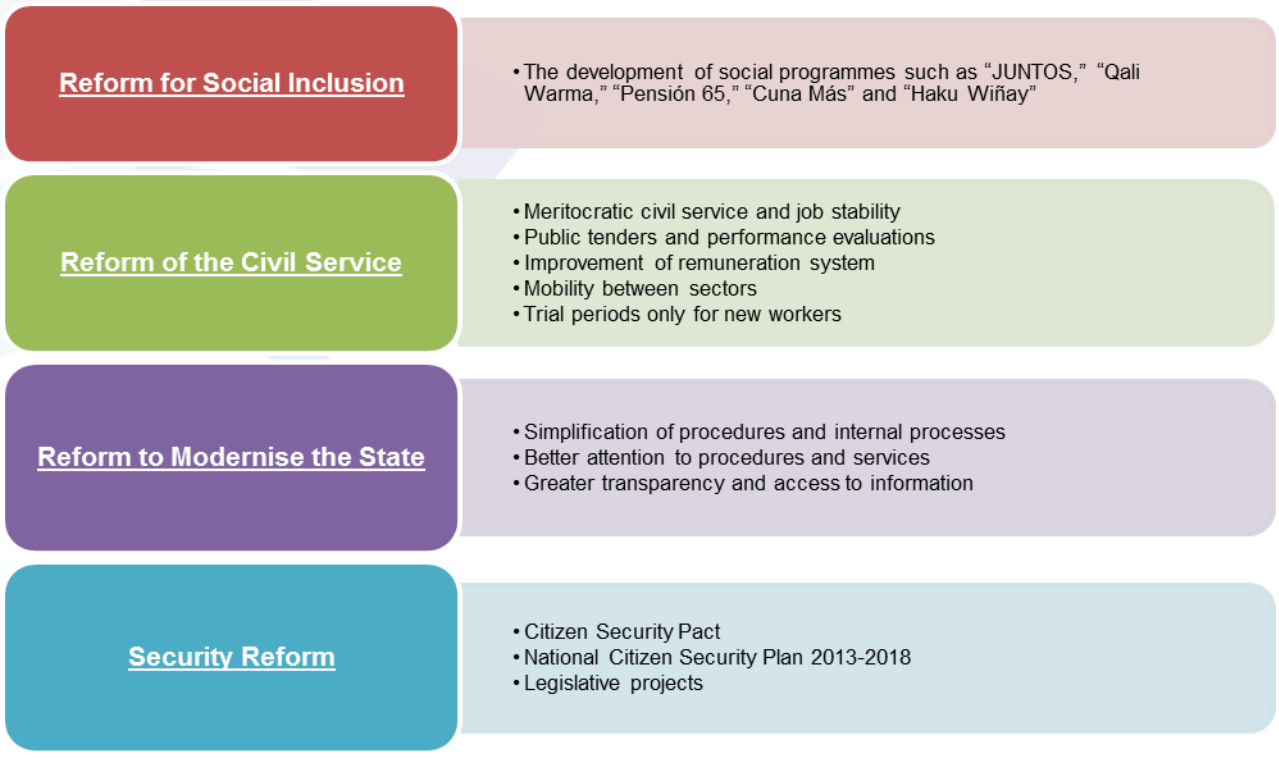
Previous and Ongoing Efforts

Governance

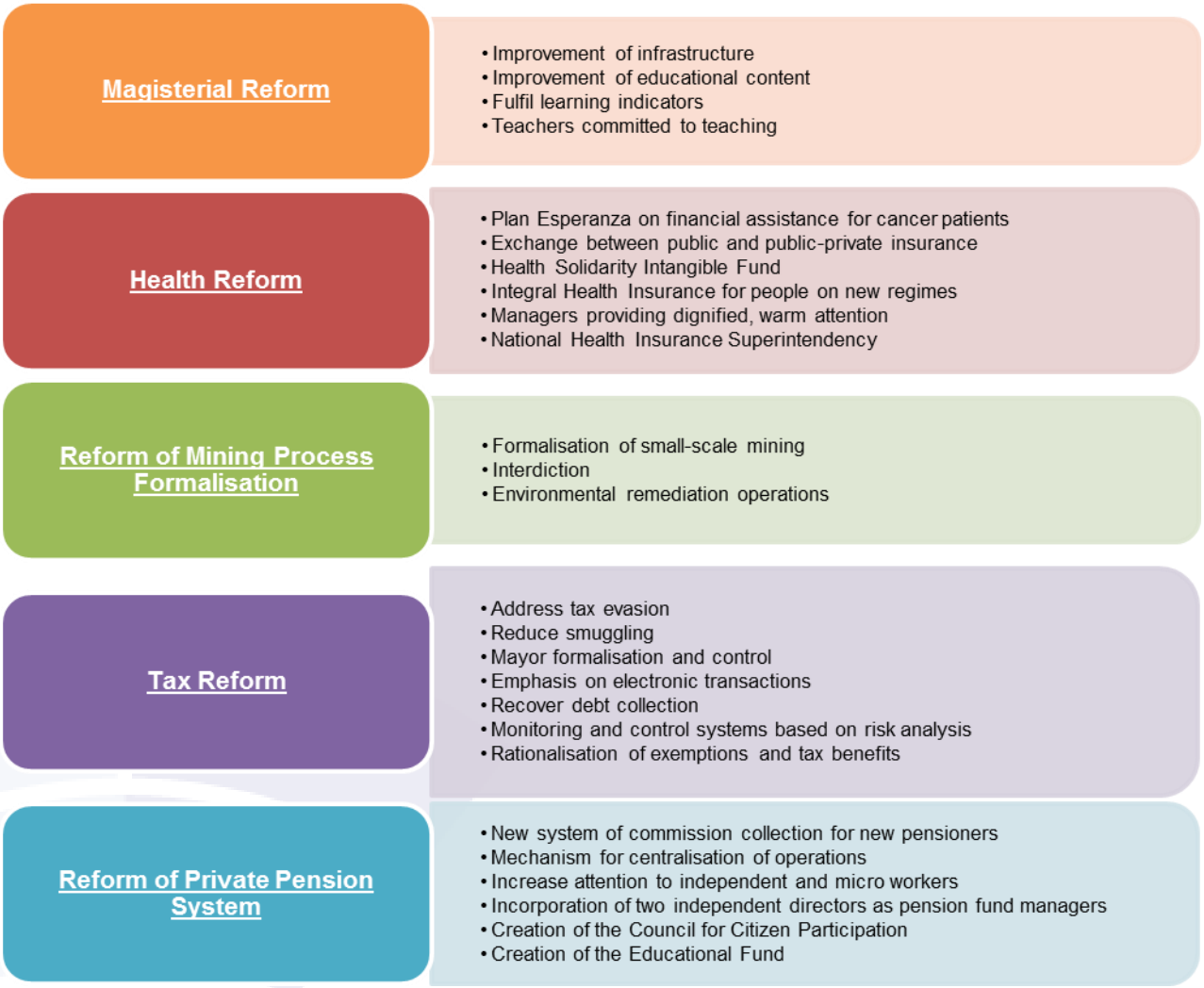
There have been attempts to establish medium- and long-term policies on governance in Peru. These include the National Accord and Bicentennial Plan: Peru towards 2021. Signed in 2002, the National Accord is a set of state policies developed and approved on the basis of dialogue and consensus, following workshops and consultations at the national level, in order to set the country on course for sustainable development and boost democratic governance. Policies are expected to be coordinated within government over the long run with the participation of all political parties (Acuerdo Nacional 2015a). The Bicentennial Plan outlines policies for the medium term. The year 2021 was chosen as the deadline for the achievement of objectives because it marks 200 years of independence (CEPLAN 2011).

A series of reforms are currently being debated by Congress and the Presidency of the Council of Ministers. Among those being debated in Congress, highlights include the New Law on Political Parties.[42] Notably, the government has undertaken nine reforms (see figure 2) through the Presidency of the Council of Ministers (see PCM 2015).

Figure 2. Main reforms undertaken by the government



[42] There have already been some changes, such as reforms to the mechanism for the revocation of elected positions. The National Election Board has increased the requirements for starting the process. This may reduce the proportion of revoked mayors and increase governance (*La República* 2015).



Conflict Prevention

Due to the aforementioned "Baguazo," the Prior Consultation Law was enacted in 2011 to create a legal obligation for the rights of indigenous peoples to be taken into account by government.[43] This legal instrument has been harshly criticised for technical shortcomings, such as only applying to events after its enactment and not being binding (Actualidad Ambiental 2012).[44] For this reason, the Office for National Dialogue and Sustainability was created. The office is responsible for directing, within the scope of its powers, the process of dialogue between the various stakeholders, such as representatives of private organisations and public officials, in order to prevent disputes, differences and social conflicts. It also provides mediation and negotiation services to solve problems (ONDS 2015). Also, the Office of the Ombudsman – one of the institutions with the most legitimacy in the country – may intervene in social conflicts. Provided that (i) people are at risk or the rights of individuals have been violated, (ii) there is a violent confrontation that affects local, regional and national governance, (iii) conditions are less favourable for development and (iv) the culture of

[43] Since 1995, when it signed International Labour Organization Convention 169, Peru has been obligated to comply with provisions guaranteeing the right of indigenous and tribal peoples to consultation and free, prior and informed consent about activities to be carried out on their territory, but in practice implementation has been non-existent (Veramendi 2012).
[44] The president said that this law "should be taken as an instrument to legitimize investment and not seen as an obstacle" (Veramendi 2012).

dialogue and peace is discouraged. It works to prevent and mediate to avoid situations that may threaten or violate fundamental rights and facilitate dialogue processes to help solve social conflicts. Moreover, the UN Development Programme has been implementing the project “Prevention of social conflicts in the use of natural resources” since 2012 (see UNDP 2013a). The project aims to contribute to strengthening democratic governance and sustainable development by reducing social conflicts and conflict levels associated with the use of natural resources, working with prevention and dialogue as key tools (UNDP 2013a). Additionally, the Agency for Environmental Evaluation and Control was created in 2008. It ensures that economic activities in the country, specifically mining, fishing, energy and industry, are in balance with the right of the population to enjoy a healthy environment (OEFA 2015).

Corruption

During the transitional government period, a series of initiatives were introduced to comprehensively combat corruption. The first was the creation of the National Anti-Corruption Plan and National Anti-Corruption Initiative, the latter being a working group whose main objective was diagnosing the situation of corruption in the country and subsequently designing public policies to address the problem. In terms of prevention, anti-corruption efforts have relied on four pillars: the National Control System, modernisation of public administration and administrative simplification, reform of public employment and Conditions of Contracting. Specific actions to combat the culture of secrecy within the government include the Law of Transparency and Access to Public Information and the new Law on Government Procurement, which regulates procurement procedures from preparations to contract execution (PCM 2012a). Currently, civil service reform aims to raise the quality of government services through the implementation of meritocracy. In addition, the incomes of most public employees will be raised and personal and professional growth will be encouraged in public administration (PCM 2015).

Moreover, the National Public Investment System, which was created in 2000, has generally improved the quality of investment in Peru by outlining key steps for investment. The system states that all projects must follow a cycle comprising the steps of pre-investment, investment and post-investment. In addition, in line with the policy of modernisation and decentralisation of the government, the system has been decentralised, thus regional and local governments can declare projects to be viable (MEF 2015b).[45] Moreover, given that resources are scarce and insufficient to cover all needs, it is necessary to prioritise projects based on welfare. Transparency in reporting accounts is important in the processes of allocation, management and evaluation of resources. Currently, the Ministry of Economy and Finance allocates its budget according to results-based budgeting.

According to the Public Ministry, there has been a substantial increase in legislation and control mechanisms, such as the law that empowers the Attorney General’s Office to designate a team of prosecutors for anti-corruption efforts. In parallel, prosecutors, courts and procurators have been enlarged in an effort to establish a decentralised National Anti-Corruption Subsystem. Moreover, the National Police of Peru created the Anti-Corruption Directorate and then the High-Level Anti-Corruption Commission was created in 2010. The latter is a coordinated initiative between the executive, the judiciary, autonomous bodies, subnational governments, business associations and civil society, which together propose policies and actions for the medium to long term to prevent and punish corruption. The main objective of this committee is to monitor and update the National Plan to Combat Corruption, which aims to realise specific actions to eradicate corruption in the country. The current plan is for the 2012–16 period.

[45] Only projects with debt or requiring endorsement or guarantee of the government are evaluated by the Ministry of Economy and Finance, which considers their implications for macroeconomic and fiscal discipline (MEF 2015b).

Human Rights

The Ministry of Justice and Human Rights includes a Vice-Ministry of Human Rights and Access to Justice. In 2005, the first National Human Rights Plan was launched for the 2005–11 period. Many of its guidelines and activities were focused on the adoption of legal reforms and measures to strengthen democratic institutions. Notably, one of the government's priorities is to mainstream human rights into public policies. Such mainstreaming is to be implemented at the national, regional and local levels as part of the decentralisation process in Peru. For this reason, the National Human Rights Plan 2014-2016 was launched (MINJUS 2014). Furthermore, as mentioned, the First National Survey on Human Rights was conducted in Peru in 2013. The survey was divided into four sections: (i) general view on human rights, (ii) review of equality, non-discrimination and vulnerable populations, (iii) general opinion on other rights and (iv) review of the role of government and human rights (see MINJUS 2013). It will serve as a baseline for the development of programmes and policies for special protection groups and various national plans.

In another respect, one of the recommendations of the Peruvian Truth and Reconciliation Commission was the creation of a Museum of Memory. After a brief dispute,[46] the Place of Memory, Tolerance and Social Inclusion is expected to be finished in 2015. The museum will remember the victims of terrorism in Peru from 1980 onwards (Lugar de la Memoria, la Tolerancia y la Inclusión Social 2015). The UN Development Programme is supporting the initiative (see UNDP 2015).

National Priorities for Establishing Open, Accountable, Inclusive and Effective Institutions, Rule of Law and a Peaceful and Inclusive Society

Given this goal area's varied issue areas, including quality of governance, strength of institutions, combating corruption, access to justice and addressing violence, the priorities of different government institutions must be surveyed, with a particular focus on the Ministry of Justice and Human Rights and Ministry of Women and Vulnerable Populations.

According to the PESEM of the Ministry of Justice and Human Rights (MINJUS 2012), national priorities include:

- Improve the quality of services and access to justice, legal certainty and social reintegration
- Expand the coverage of services and access to justice, legal certainty and social reintegration
- Promote, protect, ensure and monitor the implementation of human rights and international humanitarian law
- Develop and monitor the implementation of criminal policy and prison policy
- Promote results-oriented management and budgeting
- Develop more culture and identity

According to the PESEM of the Ministry of Women and Vulnerable Populations (MIMP 2013), policy guidelines are as follows:

1. Establish a multi-sectoral national policy on equality between men and women by ensuring equal rights and reducing gender-based violence

[46] During the 2008 European Union, Latin America and the Caribbean Summit held in Peru, the German government announced a donation to the Peruvian government for the construction of a Museum of Memory. The Peruvian government initially refused, but later accepted the donation in 2009 and announced the construction of a museum dedicated to the victims of terrorism in Peru (Lugar de la Memoria, la Tolerancia y la Inclusión Social 2015).

2. Ensure the protection of children and adolescents through the prevention of violations of their rights and the provision of comprehensive care
3. Ensure the safety of youth and families through social equity, sustainable use of territory, the right to life and the integral development of the person, guaranteeing the rights of older people and strengthening families as fundamental institutions of society
4. Contribute to the effective participation of people with disabilities in social, economic, political and cultural development and promote respect for the rights of people with disabilities and improvement of access for people with disabilities to physical and virtual spaces

In addition, the priorities of the Ministry of Culture (Ministerio de Cultura 2012) are:

1. Institutionalise the rights of indigenous peoples and the Afro-Peruvian population
2. Build intercultural citizenship and avoid ethnic discrimination

Finally, the National Anti-Corruption Plan has among its priorities (MINJUS 2012):

1. Articulation and coordination in the fight against corruption
2. Effective prevention of corruption
3. Research and timely and effective punishment of corruption in administration and the judiciary
4. Promotion and coordination of the active participation of citizens, civil society and the private sector in the fight against corruption
5. Positioning Peru in international arenas for fighting corruption

The proposed global targets and indicators encompass Peruvian priorities. All of the indicators under the goal area are relevant. Global and national targets and indicators are presented in Table 7.

Table 7. Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators

Target	Indicator
Global	
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority
	Proportion of adults with a basic legal identity document
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict
	Proportion of seats held by women and minorities in national- or local-level government
	% of adults with an account at a formal financial institution, disaggregated by sex
Improve personal safety	Prevalence of violence against women, including domestic violence
	Violent death per 100,000 people
Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from a government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes

National	
Improve security and reduce violence	Social tolerance of child maltreatment
	Women affected by domestic violence who make a denouncement
	% of girls and boys affected by domestic violence
	% of girls and boys affected by violence in school
	Victimisation rate
Increase social reintegration	% of re-entrants in prison population
	Ratio between sentenced and processed inmates
	Prison overcrowding
Establish a strong state and fight against corruption	Perceptions of corruption
Monitor and end discrimination and inequalities in economic life on the basis of social status	Wage gap between indigenous and non-indigenous peoples with comparable levels of education
Improve relationships between the government, companies and communities	Number of socio-environmental conflicts
	Number of actions, programmes and projects to prevent socio-environmental conflicts
	Number of mechanisms for citizen participation
	Accreditations for small mining producers and artisanal mining producers
Promote rational, orderly and sustainable occupation of national territory	Local governments with approved territorial management instruments
	Households with property titles
	Land titles processed on time

Improve security and reduce violence

Since Peru is ranked first in perceived insecurity in Latin America, it is necessary to have indicators on this issue. Since the proposed global indicators cover security, the proposed national indicators cover vulnerable populations such as children and women. These indicators were found in the section on the Ministry of Women and Vulnerable Populations in the PENDES (INEI 2013b). Victimisation rate, an indicator found in the PESEM of the Ministry of Justice and Human Rights, has also been included (MINJUS 2012).

Increase social reintegration

One of the main objectives of the Ministry of Justice and Human Rights is to increase social reintegration. This is a difficult objective to achieve due to poor prison conditions and the time required for a conviction. In terms of the holding capacities of prisons, only 6 percent are considered to be “large correctional facilities” (i.e., able to hold more than 1,200 inmates). The majority – 44 percent – only hold up to 199 inmates, while 38 percent can hold up to 899 inmates. However, some prisons have recorded over 500 percent overpopulation, as in the case of Jaén District (INPE 2014). Therefore, three national indicators have been included on this subject. The percentage of re-entrants in the prison population was found in the PESEM of the Ministry of Justice and Human Rights (MINJUS 2012). The ratio between sentenced and processed as inmate and prison overcrowding were found in the PESEM of the Ministry of Justice and Human Rights (MINJUS 2012).

Establish a strong state and fight against corruption

Especially in developing countries like Peru, corruption should be considered in all its forms, from petty corruption to corruption that implies the existence of a large informal network within government and involves administrative influence and corresponding knowledge of how to engage citizens effectively. Therefore, the monitoring of corruption according to citizens' perceptions of it is essential. A national indicator on this issue has been included.

Monitor and end discrimination and inequalities in economic life on the basis of social status

Although an indicator on the wage gap between indigenous and non-indigenous peoples with comparable levels of education was not in the government's documents, the research team has included it because indigenous peoples have always been vulnerable. Notably, they are recognised as a priority by the Ministry of Culture, but specific related indicators have not been designed. The team considers this to be something that cannot be postponed.

Improve relationships between the government, companies and communities

Throughout history, access to and control of natural resources, such as oil, gas, minerals and water, have led to wealth creation but also conflict. In Latin America, where natural resources are strategic resources, socio-environmental conflicts have emerged with increasing consequences. The potential for conflict is especially high when people rather than authorities manage a country's strategic resources. However, conflicts are social constructs and may change depending on the attitudes and interests involved as well as how they are driven and addressed (UNDP 2013a). For Peru, including and tracking indicators on socio-environmental conflicts is quite relevant.

Promote rational, orderly and sustainable occupation of national territory

Peru is a country that has been growing in a disorderly manner. Ecological zones are not well defined, cities do not have spatial plans that enable orderly, sustainable development around citizens' needs. There is no mass transit system in Lima, despite a population of almost 9 million. Other major cities face similar situations on a smaller scale, which are often aggravated by pollution from urban transport. The proliferation of taxis, the services of which are not regulated, contributes to increased pollution, congestion and insecurity. Indicators on approved territorial management instruments and households with property titles have therefore been proposed. They were found in the PENDES (INEI 2013b). An indicator on land titles processed on time, which was found in the PESEM of the Ministry of Justice and Human Rights (MINJUS 2012), has also been included.

Establish a Global Partnership for Sustainable Development

Current Status

The MDGs include one goal aimed at addressing systemic global challenges related to the achievement of the MDGs in developing countries. To this effect, MDG 8 on developing a global partnership for development includes a target on the development of a more open trading and financial system based on predictable, non-discriminatory rules. While the business climate continues to improve for developing countries, there has been less progress with respect to trade, particularly in terms of duty-free, quota-free market access for developing countries' exports. Official development assistance flows – another measure of global partnership under MDG 8 – have increased substantially over the MDG period, reaching US$125.6 billion in 2012, though they saw a decline in 2013 owing to the fallout from the global financial crisis and problems in the euro zone. This was the first time foreign aid saw a decline since 1996–97. MDG 8 also includes a target on addressing developing country debt. Debt service rates have been reduced by one quarter in terms of export earnings. Formally, debt declined from 11.9 percent in 2000 to 3.1 percent in 2011. MDG 8 also includes a target on improving access to new technologies (particularly information and communications technologies) in developing countries. With the cooperation of the private sector, an estimated 6.8 billion people had mobile phones in 2012, which represents 96 percent of the global population. Moreover, 2.7 billion people, or 39 percent of the global population, had access to the internet (MDG Gap Task Force 2014). Many difficulties persist in developing countries with respect to accessing broadband (UNDP 2013b).

Previous and Ongoing Efforts

Peru has advanced in terms of developing an open trading and financial system. The country's trade grew from approximately US$18.2 billion in 2000 to about US$95.2 billion in 2011, which represents an increase of 423.8 percent. This growth was achieved thanks to trade agreements with China (the destination of 15 percent of Peru's exports) and the United States (13 percent). Foreign aid fell from 584.6 million to 335.6 million between 2005 and 2010, a decrease of 42.6 percent. With respect to addressing debt problems, there have been achievements in Peru. Debt represented 26.8 percent of the total public budget in 2005 and decreased to 12.9 percent in 2011, which favoured the development of the country and the fight against poverty. To facilitate access to medicine at reasonable prices, the government, which channels 37.2 percent of medications to individual users, has made efforts to eliminate duty and taxes on certain oncology medications and treatment for HIV/AIDS. However, these efforts do not always lead to a reduction in the price of medicine due to the lack of support from pharmaceutical companies. With respect to providing access to new technologies, the slowest growth was seen in home phone lines, which went from 7.42 to 10.15 for every 100 people between 2004 and 2011, which contrasts with the increases in mobile phone and internet users over the same period from 14.81 to 108.32 and from 14.1 to 36.5, respectively (UNDP 2013d).

A key development was the creation of the Peruvian Agency for International Cooperation in 2002. The agency manages and regulates the demand for and supply of foreign aid at different levels of government with a focus on Peru's sustainable development. In terms of demand for aid, its main challenge is the transition of Peru from a low-income to a middle-income country, which will lead to a reduction in aid from various donors. In terms of South-South cooperation, Peru's actions are few, but development partners include Colombia, Nicaragua and Paraguay (Xalma 2012).

National Priorities for Establishing a Global Partnership for Sustainable Development

Regarding the proposed global targets and indicators, some issues are not relevant for Peru. The country does not trade or have debts with low-income countries, so the indicators “Low-income country debt forgiveness or reduction (% of GDP)” and “Share of trade in goods and services from low-income countries under duty-free, quota-free market access” are not pertinent. However, “Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering” is pertinent. As a middle-income country, indicators for the target on increasing financing to productive capacity are relevant. The indicators “Share of aid to the productive sector,” “Proportion of foreign direct investment to the productive sector” and “Share of South-South cooperation to the productive sector” can be measured in Peru.

After discussions with stakeholders, the research team decided not to propose national targets and indicators under this goal area because Peru is only an emerging South-South donor.[47]

Table 8. Establish a global partnership for sustainable development: Targets and indicators

Target	Indicator
Global	
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector
	Proportion of foreign direct investment to the productive sector
	Share of South-South cooperation to the productive sector

[47] South-South cooperation is not presented in the National Agreement (Acuerdo Nacional 2015b), Bicentennial Plan: Peru towards 2021 (CEPLAN 2011) or any of the ministries’ plans.

Measuring Progress on Post-2015 in Peru

Overview of the National Statistical System

Organisation

The national statistical system in Peru is centralised with the objective of ensuring that all statistical activities carried out by central, regional and local governments occur in an integrated, coordinated and rationalised manner under common technical regulation (INEI 2014j). The central organisation in the national statistical system is the INEI, which is a specialised technical organisation that is dependent on the Presidency of the Council of Ministers.[48] It has juridical personnel and technical autonomy and an autonomous administration (INEI 2014f). The INEI was founded in 1975 through Decree-Law No. 21372 (INEI 2014d) and is responsible for planning, managing, coordinating, supervising and normalising official statistical activities in the country. For this reason, it has the rank of Functional System[49] and its chief has the highest authority over of the national statistical system (INEI 2014f).

Official statistical activities are guided by the PENDES, which focuses on data demand. The plan was launched with financial support from the UN Population Fund, Inter-American Development Bank, Partnership in Statistics for Development in the 21st Century and Eurostat, the statistical office of the European Union. The plan was formulated with participation from the INEI as well as other organisations pertinent to the national, regional and local levels of government. In this way, the INEI provides statistics that respond primarily to data demand from those responsible for designing, monitoring and evaluating programmes and public policies (INEI 2014i).

Additionally, the Code of Good Statistical Practices of Peru was approved in 2012,[50] with the objective "to increment trust in the independence, integrity, and responsibility of the organisations that integrate the national statistical system on its national, regional, and local levels, as well as promote the application of better principles, methods, and practices to augment the quality of official statistics" (INEI 2014g). With its approval, the Peruvian government intended to improve the production of statistical data in three areas, namely through commitment to data users' needs and improving efficiency and quality (INEI 2014a).

The INEI website publishes quarterly and annual indicators as microdata archives and systems to cross variables in a user-friendly way.[51] Censuses, general surveys and specialised surveys can all be found on the publicly accessible website as microdata, while data from databases such as that for the National Census of Population and Household can be made available upon request. Databases are frequently updated and can be accessed free of charge. Every public institution has a "statistics" section on its website.

With respect to the financing of official statistical activities, the INEI has standard resources directly collected from taxes, donations and money transfers (INEI 2014h). While a large part of its budget comes from the government, some statistics are produced with the help of international organisations. For instance, there is the Map of Analysis of Coverage Change of Forest to Non-Forest for Deforestation of the Peruvian Amazon,

[48] Law No. 29158 indicates that "the Presidency of the Council of Ministers is the Ministry responsible for the coordination of national and sectoral policies of the executive. [It] [c]oordinates relations with the other branches of government, constitutional bodies, regional governments, local governments and civil society" (Congress of the Republic of Peru 2007).
[49] Functional Systems are designed to ensure compliance with public policies that require participation of all or several entities.
[50] Through Supreme Decree No. 072-2012-PCM (PCM 2012b).
[51] The user-friendly software to use microdata files and cross variables is called REDATAM, which stands for Recovery of Data for Small Areas by Microcomputer.

which was elaborated by the Ministry of Environment. For its elaboration, the use of the CLASlite system[52] was necessary, which was possible thanks to an agreement between the Carnegie Institution for Science and Ministry of Environment (MINAM 2014b).

Data Producers

While the INEI is the central organisation in the national statistical system, a number of other organisations are involved in the production of data. These include the National Statistics Advisory Council, Inter-institutional Committee of Statistical Coordination, Sectoral Statistical Offices and other statistical offices in ministries, central government institutions, decentralised public institutions, state-owned enterprises, and statistical organisations of regional governments, municipalities and public institutions (INEI 2014j).

Statistical data can come from three sources: censuses, surveys and administrative data. Generally, statistical data from censuses and surveys are produced by the INEI, while administrative data come from the registries of government institutions and decentralised public institutions. These institutions – ministries, local governments, the Central Reserve Bank of Peru and others – produce their own statistics by following the guidelines of the Code of Good Statistical Practices (INEI 2014g). Coordination between the INEI and different government institutions is accomplished through the Inter-institutional Committee of Statistical Coordination, Which ensures that official statistical activities satisfy data demand by following the PENDES.

In addition to the entities that are formally part of the national statistical system, there are private organisations that collect information independently, such as Ipsos Perú[53] and Proética.[54] A number of other entities are responsible for the recompilation, elaboration and publication of data, including the Instituto Cuánto,[55] which publishes the annual statistical yearbook *Peru in Numbers* (Instituto Cuánto 2015). In the case of information collected independently, accessibility depends on the organisation that produces the information. Proética and Young Lives Study[56] permit users to download their databases for free, while other organisations have certain restrictions on access to their databases, such as paywalls.

With regard to credibility, independent sources of data can have their own agendas, can be biased or may not have the expertise necessary for data collection. Although there are independent databases that are trustworthy, such as the Young Lives database, it is preferable to use official data.

Users of Data

Data published by the INEI are used by a diverse group of stakeholders including the government, private researchers, academics, businesses and civil society in general. Data users often have different objectives, but the principal use of statistical data is for the "design, monitoring, and evaluation of public policy," especially by those sectors that are responsible for budgeting programmes (INEI 2013b).

In line with the PENDES (INEI 2013b), the government has outlined that data collection should be geared towards meeting the following objectives: (i) greater social inclusion, including reduction of poverty and

[52] CLASlite is an automated system for converting satellite imagery from its original (raw) format – through calibration, pre-processing, atmospheric correction, cloud masking steps, Monte Carlo Spectral Mixture Analysis and expert classification – into high-resolution images. The power of CLASlite rests in its unique ability to convert seemingly green "carpets" of dense tropical forest cover found in basic satellite images into highly detailed maps that can be readily searched for deforestation, logging and other forest disturbance events. Both deforestation and secondary forest regrowth can be tracked by a user of CLASlite (Carnegie Institution for Science 2015).
[53] Ipsos Perú is a research organisation that aims to address the needs of the market and society. It operates through four business units: marketing, advertising research, loyalty and public affairs (Ipsos Perú 2015).
[54] Proética is a non-profit organisation dedicated primarily to analysing, identifying and exposing corruption (Proética 2015).
[55] The institute is a Peruvian non-profit private association that conducts research intended to educate the public on national issues, with emphasis on quantitative aspects (Instituto Cuánto 2015).
[56] The Young Lives is a longitudinal study that allows for an understanding of the consequences of poverty for children from an early age. The study has been conducted in Peru, India, Ethiopia and Vietnam.

inequity, generation of equality of opportunities, and greater state presence and efficiency in rural areas, (ii) economic growth with stability, (iii) improvement of productivity and competitiveness of the economy and (iv) improvement in the quality of public spending through results-based budgeting. To achieve these objectives, the INEI has been identified as a key actor because it is necessary to have quality statistical data that align with the particular needs of the country.

Data Availability for Monitoring Post-2015

General Availability of Data

As mentioned, activities carried out under the national statistical system include the collection and analysis of data. The National Census of Population and Housing has not had a fixed interval, with its conduction varying at intervals between 11 and 18 years, though since the approval of the Code of Good Statistical Practices, it is planned for 10-year intervals (INEI 2014g). Surveys are conducted quarterly or annually on diverse issues, such as health, education, employment and strategies for public policy. Administrative data are collected from the registries of government institutions according to their own frequencies of data collection.

In general, data collection and updating by different government institutions occurs at regular intervals. Also, the majority of databases are accessible by the general public. Therefore, data users do not experience problems related to data availability. However, depending on the issue, information can be more or less complete. For example, the National Household Survey provides trustworthy information on issues including income, education and employment, but for issues related to governance it is still necessary to consult external sources.

Data Availability for Selected Targets and Indicators

In general, the calculation of indicators related to sustainable development can be accomplished without any problem when using statistical data from official sources. In the specific case of the candidate post-2015 targets and indicators examined under this study, the sufficiency of data depends on the goal area. For example, data related to poverty, education and employment are easily obtained given that, for indicator calculation, data at the individual and household level are typically needed. The main source for data under these areas is the National Household Survey. The information is trustworthy and constantly updated, with data being published in quarterly and annual versions. The same level of data availability is not observed in calculating indicators related to energy, the environment or global partnership. This is due to the fact that such data need to be collected in aggregated form or specific resources are needed for additional data collection.

According to the data-mapping exercise under this study, the national statistical system already calculates 18 of the 45 examined global indicators and 14 other indicators can be easily calculated from already available data. For the remaining indicators, some can be calculated by other means, such as through requesting information from the INEI (one indicator) or using non-official databases from international organisations (five indicators). Data exist for four other indicators, but the collection period or publication interval are not fixed. Finally, five indicators cannot be measured and new data will need to be collected. Table 9 presents a summary of the data availability for the calculation of candidate post-2015 global indicators examined under this study. Notably, two indicators are not particularly relevant for Peru, hence the lack of available data is not a problem.

Table 9. Data availability for measuring progress against global targets and indicators							
Goal area	Indicators	Indicator available	Calculation using existing data sources possible[57]	Custom tabulation by INEI[58]	Available but not for the baseline year[59]	Available from non-official data sources	Data to be collected
End poverty							
Global	5	2	3				
National	4	4					
Ensure quality education for all							
Global	5	3	2				
National	10	3	4		3		
Create jobs, sustainable livelihoods and inclusive growth for all							
Global	7	5	2				
National	4	1	2				1
Ensure sustainable energy and develop infrastructure for all							
Global	8	2	2	1		2	1
National	9	8					1
Ensure a sustainable, health and resilient environment for all							
Global	5	3	1				1
National	9	3	2	1	1	1	1
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society							
Global	9	2	3		2	1	1
National	17	5	3	4	3	2	
Establish a global partnership for sustainable development							
Global	6	1	1			2	2[60]
National	0						
Total							
Global	45	18	14	1	2	5	5
National	53	24	11	5	7	3	3

Table 10 shows the indicators for which data need to be collected. Data for the first indicator, the number of hours per day households have access to electricity on average, could be collected with the National Household Survey, which already contains information about types of lighting and energy in households. The second indicator, the share of large tax unit taxpayers using integrated reporting, could be published in an annual report or updated in the statistics of the National Superintendency of Public Registries. Data for the third indicator, the average time between filing a case and receiving a verdict, could be collected by consulting lawyers in the country or could be registered in the administrative data of the Ministry of Justice and Human Rights. However, there is no national survey with which such data could be collected at this time. Although data for two of the indicators under the goal area on global partnership cannot currently be collected in Peru, these indicators do not seem relevant since the country does not trade or have debt in significant proportions with low-income countries.

[57] Refers to instances when public use microdata files or other data sources are publicly accessible but additional efforts are needed to calculate the indicator.
[58] Refers to instances when data exist but a public use microdata file is not available and so a custom tabulation request to the INEI is required.
[59] Refers to data being available but not for the baseline year; the indicator is either calculated occasionally or the time needed for publishing the database is more than two years (or publication is occasional).
[60] Given that Peru does not trade or have debt in significant proportions with low-income countries, indicators relating to low-income countries are not included in this table.

Table 10. Global targets and indicators for which data need to be collected	
Target	**Indicator**
Ensure sustainable energy and develop infrastructure for all	
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average
Establish a sustainable, healthy and resilient environment for all	
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict
Establish a global partnership for sustainable development	
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access

Data Sources

Table 11 presents key potential data sources in Peru identified as relevant across goal areas. Annex 2 elaborates on all potential sources in Peru, including potential databases that are publicly accessible and deemed to be relevant. The principal data sources used to calculate indicators in Peru are the National Household Survey, Demographic and Health Survey and National Census of Population and Housing. The National Household Survey is conducted quarterly for certain modules and annually provides data for indicators on poverty, education, employment, governance and infrastructure. Given its flexibility and coverage of different issues, it is the most used survey for research and monitoring of public policies. The second most used data source is the Demographic and Health Survey, which gathers data on an annual basis and focuses on the health of children under five years of age and women between the ages 15 and 49. Finally, the National Census of Population and Housing is useful for the calculation of poverty and education indicators for the whole population as well as at the district, province and regional levels. Notably, this data source is used as a sampling frame for the National Household Survey. Other sources that are relevant for some goal areas include: (i) the National School Census for education, (ii) the *National Energy Balance* report for energy and (iii) the Peruvian Agency of

Table 11. Key potential sources for monitoring the post-2015 agenda in Peru	
Source	**Strategy**
National Census of Population and Housing – INEI	• Education • Poverty • Environment
National Household Survey – INEI	• Poverty • Education • Employment and inclusive growth • Governance • Energy and infrastructure
Demographic and Health Survey – INEI	• Poverty • Governance
National School Census – Ministry of Education	• Education
National Energy Balance – Ministry of Energy and Mining	• Energy and infrastructure
Peruvian Agency of International Cooperation	• Global partnership

International Cooperation for global partnership. These sources are quite relevant for indicators under these goal areas.

Baseline for Post-2015

As shown in Table 9, the majority of indicators can be calculated with 2010 as the baseline year because most data sources have information for that year. However, there are some exceptions. Table 12 shows the indicators for which data are available but not for 2010.

Table 12. Indicators for which data are not available for 2010

Goal	Indicator	Reason
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Violent death per 100,000	Data for the indicator are only available for the years 2011 and 2013. The INEI created a database in 2014 using surveys oriented towards the heads of police stations. It is undetermined whether there will be more data on this issue.
	Proportion of adults with a basic legal identity document	The question if someone has a national identification card was added in 2012 in the National Household Surveys, which explains why the indicator can only be calculated since that year.

Quality of Data for Measuring Progress on Post-2015 in Peru

Quality of Statistical Data in Peru

Over the last few years in particular, quality and timely statistical data have been in demand in Peru. The INEI plays a strategic role in the formulation of public policies and decision making. For this reason, entities in the national statistical system have the responsibility to boost and maintain the credibility of their data. As mentioned, the Code of Good Statistical Practices was approved in 2012. It emphasises the importance of credibility of information, for which the following four characteristics are necessary: (i) quality, coverage and timeliness of adequate data, (ii) cost-effective statistical operations, (iii) adequately processed information for decision making and (iv) transparent statistical processes (INEI 2014g). Additionally, the code established the criteria presented in Table 13 to determine the quality of data.

Table 13. Data quality assessment framework of Peru

Code of Good Statistical Practices	Commitment to the user	1. Relevance 2. Impartiality and objectivity 3. Professional independence 4. Transparency, equity and opportunity
	Commitment to efficiency	1. Proper use of sources of information 2. Coordination
	Commitment to quality	1. Robust methodology 2. Coherence and comparison 3. Confidentiality

Source: INEI (2014g).

Another key step in the plan to increase trust in Peruvian statistics was the elaboration of the PENDES. In 2002, Peru began annually planning statistical production at the national level and the importance of such planning has become even more evident over time. The first PENDES was developed for the 2008–12

period. Table 14 synthesises conclusions about the strengths and weaknesses of national statistical system that were made when the plan ended in 2012. These conclusions were taken into account to elaborate the PENDES for the 2013–17 period.

Given lessons learned, the latest PENDES intends to strengthen the national statistical system by identifying *a priori* priority data demands,[61] reaching a consensus among relevant users and producers on statistical information to be collected and maintaining international commitments that have been made.[62] It recognises that the national statistical system should have: (i) consistency tests that guarantee standards between concepts and contents of the plan, (ii) an evaluation system that not only registers statistical activities but also provides feedback to all entities and (iii) a regime of incentives and correctives for good and bad practices. The plan was scheduled to be revised again in 2015 and by 2017 it is expected to have achieved its objectives, which will increase trust in the national statistical system.

Table 14. Conclusions from PENDES 2008–2012

Strengths	Weaknesses
• Political decision to establish the PENDES was seen as a wise decision	• Data quality did not improve at all political-administrative levels
• The PENDES increased the effectiveness of administration by identifying data needs for strategic objectives and designing instruments to collect statistical data	• Insufficient assignment of economic resources linked to the lack of inter-sectoral consensus on statistical activities as a key input in decision making
• The PENDES increased the quantity of trustworthy, timely and quality data in many ministries	• Insufficient differentiation between strategies and activities
• The national statistical system was strengthened	• Lack of monitoring and auditing of accomplishments
• The System of Programming and Multiannual Evaluation became more flexible	• Not all sectors were included in the evaluation and regional and local governments were missing

Source: INEI (2013b).

Data Quality Assessment Framework

The data quality assessment framework used by research teams under the Post-2015 Data Test is found in Annex 3. The framework was elaborated using as its basis the Generic National Quality Assurance Framework Template (Expert Group on NQAF 2012), the European Statistics Code of Practice (ESSC 2011), the International Monetary Fund's Data Quality Assessment Framework (IMF 2006) and the Code of Good Practice in Statistics for Latin America and the Caribbean (Working Group on Capacity Building 2011). Additionally, the Peru research team consulted the Code of Good Statistical Practices for Peru (INEI 2014g). The five main criteria for examining data quality are:

1. Relevance
2. Accuracy and reliability
3. Timeliness and punctuality
4. Accessibility and clarity

[61] Not all sectors have a PESEM or clear budget objectives, hence identifying statistical priorities is difficult in some cases.
[62] International agreements include the global agreements of the Partnership in Statistics for Development in the 21st Century, UN, Food and Agriculture Organization of the UN, UN Children's Fund, UN Economic Commission for Latin America and the Caribbean, Organización para la Excelencia de la Salud, and the Andean Community, among others. The PENDES promotes normalisation and standardisation activities for the improvement in data quality through the implementation of the Code of Good Statistical Practices (INEI 2013b).

5. Coherence and comparability

The quality of available data for the candidate targets and indicators under each goal area was assessed according to these criteria. Scores for every goal area were assigned, with the score for each criterion ranging from 1 to 5, where 5 indicates that data for the goal area meet all criteria sub-components, 3 indicates that the data meet more than half of the criteria sub-components, 2 indicates that at least some sub-components were met and 1 indicates that no data meet the criteria.

Applying the Data Quality Assessment Framework

For the assessment of data, two researchers of the Peru research team independently completed the same data quality assessment. Then they compared results and came to a consensus with a final score per criterion for each goal area. The assessment was completed in the following way: the researchers systematically examined every data source identified through the data-mapping exercise (see Table 11). Afterwards, they assigned a point for every sub-component of the five criteria for each goal area. The researchers made use of all available technical documents and followed the general framework outlined in Annex 3. Principal strategies to assess the quality of data for every indicator according to the sub-components of the five criteria are presented in Table 15.

Table 15. Principal strategies for data quality assessment by criterion

Criterion	Strategy
Relevance	Verify that each sub-component is a priority in the PENDES.
Accuracy and reliability	Use the methodological documents of every data source (if available) and examine whether data are systematically collected and representative. Estimate indicators when metadata are available and corroborate the values.
Timeliness and punctuality	Consult a diverse group of researchers about their experiences with data sources and consult the INEI for official data publication dates. Compare responses.
Accessibility and clarity	Verify availability of data and microdata. When necessary, request clarification from responsible entity (not all entities have established consultation systems).
Coherence and comparability	Compare official sources with international sources and national non-official sources when available. Classify any methodological changes (such as those to the sample, collection of data, parameters) and identify impact on data quality.

Limitations of the Data Quality Assessment

Despite being systematic, researchers encountered serious limitations for the assessment of data quality that made it impossible to comprehensively assess all data sources. Researchers made use of publicly available methodological documents, but not all data sources have such documents. While the INEI publishes data in documents complete with information about sampling, data collection, statistical production, error estimation and other details, other entities' documents are not so clear on these points, particularly when data are coming from administrative registries.

Regarding the data quality assessment framework, criteria could not be appropriately scored in some cases. For instance, some sub-components could have obtained a score of 3.5 or 4.4, but either way a score of 4 had to be registered. Also, due to the fact that the maximum score obtainable, 5, could only be acquired if the data source meets all of the sub-components, a source that meets all but one can only obtain a 4.
Finally, there were data that did not adjust well to the criteria, mostly those that were administrative in nature. Also, some data concerned different aspects of the same issue and the following generally occurred: if the

data source met one sub-component, almost all criteria gained scores of 1, but if the data source did not meet the criteria, it obtained scores of 0 given that data quality assessment was not possible. Notably, if a data source had an associated methodological document that backed it up, many criteria received scores of 1. If the source did not have an associated technical document, all criteria received scores of 0. Therefore, many of the sub-components did not have different functions.

Results of the Data Quality Assessment

As mentioned, data for indicators under the goal areas on poverty, education and employment are collected and produced by the INEI, so they follow quality standards defined in the Code of Good Statistical Practices of Peru (INEI 2014g). The INEI has methodological documents, set collection periods and fixed publication intervals. Also, the National Household Survey and Demographic and Health Survey collect data in line with data demand (INE 2013b). In general, these data sources obtain high scores according to the data quality assessment framework.

Still, Peru faces great challenges and needs to improve data quality, particularly for the goals areas of environment, governance and global partnership. This is due to the fact that most of the indicators under these goal areas can only be tracked with administrative data from ministries with statistics offices other than the INEI. As mentioned, it has been difficult to standardise data quality at all government levels. Data producers with relatively greater experience with data have larger budgets allocated for data collection, while others – mostly new ministries such as the Ministry of Environment – do not have sufficient budgets or understand the importance of statistics in decision-making processes and public life in general.

In other cases, such as the goal area on energy, relevant data are obtained from international sources, such as the Latin American Energy Organization, the information of which is not publicly accessible, making data quality difficult to evaluate. In the case of the goal area on global partnership, data are available but disaggregated at the project level, making indicators difficult to calculate and data complicated to evaluate.

Table 16 provides the overall results of the data quality assessment for Peru.

Table 16. Results of the data quality assessment					
Goal area	**Relevance**	**Accuracy and reliability**	**Timeliness and punctuality**	**Accessibility and clarity**	**Coherence and comparability**
End poverty	5	4	4	4	4
Ensure quality education for all	5	4	4	4	4
Create jobs, sustainable livelihoods and inclusive growth for all	5	5	4	3	3
Ensure sustainable energy and develop infrastructure for all	3	4	2	2	4
Establish a sustainable, healthy and resilient environment for all	4	3	3	2	2
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	3	2	3	2	2
Establish a global partnership for sustainable development	3	2	4	2	2

Notably, the criterion with the highest scores is relevance. This result is due to the development of the PENDES, in which many of the proposed post-2015 indicators are considered priorities or relevant for decision making in certain sectors (INEI 2013b). Accessibility and clarity received the lowest scores due to the lack of access to metadata for reported information by entities other than the INEI.[63]

[63] If metadata were not available, indicators could not be directly calculated. If additionally there were no associated methodological documents, the data source obtained a score of 0.

Political Economy of the Data Revolution

Legal Reforms

Over time, the collection of data for social indicators in Peru has changed due to various factors including laws, political pressure, budgets, technical difficulties and limitations, and methodological innovations. The INEI has a rich history of formulating strategies to collect data and produce statistics for social indicators. Its strategies and practices have improved particularly since 2000, a period marked by two legal reforms, the Law of Transparency and Access to Public Information (Law No. 27806) (Congress of the Republic of Peru 2003) and Law of Public Sector Budget (N° 28411) that led to the adoption of results-based budgeting (Congress of the Republic of Peru 2004).

Transparency and Access to Information

The antecedents of the Law of Transparency and Access to Public Information are Supreme Decree No. 018-2001-PCM from the Council of Ministers and Emergency Decree No. 035-2001. These two decrees promulgated during the transitional government period in 2001 demonstrate the government's intentions on transparency and public access to information and provide guidelines for procedures to follow in order to access information. The basis of these two decrees is the Political Constitution of Peru of 1993, which alludes to the right to "request the information that one requires (without stating the motive), and receive it from whichever public entity, within the legal time period, with the cost of the request. This is with exception to information that violates privacy and information that is explicitly excluded by the law or for reasons of national security" (Article 2, Incise 5, Political Constitution of Peru [Congress of the Republic of Peru 1993], cited by Fernández 2013, 1).

In 2002, the government of Alejandro Toledo, which succeeded the transitional government, promulgated the Law of Transparency and Access to Public Information, which entered into force in January 2003. According to Article 1, the law "has as its purpose to promote the transparency of State acts and regulate the fundamental right of access to information" (Congress of the Republic of Peru 2003). It presumes that information administered by the government is of public nature. Therefore, the law in question obliges all entities of public administration to publish information on their respective websites or in widely circulated journals. Public entities are also obliged to provide information to every citizen who requests it.

According to Article 6, the public entities responsible for complying with the law are the central government (executive, legislative and judicial branches), regional governments, local governments (provinces and districts) and "private entities that provide public services or exercise administrative functions" (Congress of the Republic of Peru 2003). Information that is published or requested includes general information, budgets, investments in public projects, general information about staff, contracts and acquisitions, and fiscal information. The only type of information that cannot be requested is that which upon publication compromises a government decision (such as confidential information of public, bank, fiscal, commercial, industrial, technological or stock-market character) and that which is related to national security or personal privacy of a public employee (e.g., personal health).

The process to access information is very simple with minimal costs related to the reproduction costs of information. The time period within which the public entity must provide the requested information is seven

business days. If the entity has not responded, the requester may appeal. After 10 more business days, if the information has not been provided, a lawsuit may be filed.

Different critiques have arisen about information-related practices within the government. Apparently many employees still do not share information for fear of being sanctioned by their superiors (Fernández 2013) and secrecy continues to be the norm, with access to information being the exception (Castro Leyva n.d., cited by Torres Manrique 2013). In 2010, the Peruvian Press Council accused the Congress of not respecting the Law of Transparency and Access to Public Information, having omitted since 2007 important information on its website "that would permit an adequate fiscalization of spending and actions" (*Perú21* 2010). Additionally, when a public entity does not provide information requested by a citizen, the judicial process is long, expensive and tedious, there is a need for an autonomous specialised authority that effectively resolves conflicts between entities and requesters (Alva 2012). According to the Office of the Ombudsman, 66 percent of regional governments used the standard transparency portal in 2012 (IPYS 2012). More than 10 years after its promulgation, Cecilia Blondet summed up the impact of the Law of Transparency and Access to Public Information by saying that it has helped citizens acquire information for personal and particular benefit (with respect to topics of retirement and pensions, for example), but in terms of evaluation or political action, there are still problems and difficulties in access (IPYS 2012).

Results-Based Budgeting

Since 2004, the adoption of results-based budgeting[64] in Peru meant a change with respect to the administration of the public budget, with the objective being to improve the efficiency and equity of social projects and programmes in reducing poverty and exclusion. This initiative stems from the principle that budget allocations are not only for government institutions and they should be directed to the citizens who require and value social projects and programmes. Put another way, results-based budgeting intends to improve the quality of public services that citizens receive by extending the government's role past simply verifying whether or not public entities spent their budget allocations. Results-based budgeting anticipates the central problems that the Peruvian population will face and the results of public entities' actions and interventions oriented towards development and research. It was stipulated that every action and intervention should generate a product and that every product should be oriented towards a goal with a final result. Indicators were established for the anticipated results to track the progress of the Peruvian population in all areas. Figure 3 provides an overview of the strategic programmes that were designed.

[64] The information about results-based budgeting was found on the website of the Ministry of Economy and Finance. For more information about the topic, see MEF (2015a; n.d.).

Figure 3. Strategic programmes designed under results-based budgeting

At the same time, specific targets were established for every result (e.g., to reduce the prevalence of malnutrition in children under 5 from 25 percent in 2008 to 16 percent for 2011). Additionally, for each of the strategic programmes, proposals were designed to facilitate and standardise the actions and interventions oriented towards achieving the required products and results. Results-based budgeting prioritises addressing

segments of the Peruvian population that are in the most urgent social conditions, such as rural populations and those located in dispersed areas (especially centres populated by less than 50 households), which have a greater tendency to experience the stagnation of poverty.

The initial results of the initiative were a reduction in chronic infant malnutrition in children under five from 23.4% in 2007 to 20% in 2009. Outcomes have improved for the growth and development of children. Reading comprehension of children until Cycle II has also improved from 14% in 2007 to 21% in 2009 (Torres 2011, 13). Apart from such results, the initiative led to many changes and diverse opinions. Former minister of Economy and Finance Luis Miguel Castilla Rubio said that results-based budgeting is an important innovation in public administration and enables better allocation of government resources (*Andina* 2012). He also stated that the budget for social programs tripled over the last decade (2002 – 2012) while the results in social indicators did not improve, though this tendency is now being reverted (*Perú21* 2012).

Cristhiam León (2011) suggested that results-based budgeting should be renamed "Budget System Oriented to Results." With this formality, the government would be opting for an orientation towards results that is not only related to the budget, but also "administrative, provision, human resources systems, etc." He argued that this budget system should be the subject of discussion in the public and private sectors and the results of discussions should be disseminated online so that information does not stay in meeting rooms and the exchange of information is not a closed dialogue between specialists. He critiqued the slowness with which results-based budgeting is being implemented, as there have been many efforts since the 1980s and advancements (definition of objectives, measurement of indicators, improvement in processes, information about results, etc.), but the capacity for evaluation remains insufficient (weakness of information systems, little utility of the control mechanisms, scarce use of evaluation reports, etc.). According to León, the weakness of results-based budgeting lies more in the evaluation process rather than the design of strategies and programmes. Before its adoption, there were warnings about the risk that the orientation towards results could be accompanied by a modification of data and hiding of budget quotes if strategies are not accompanied by an effective system of self-evaluation (Zapico and Mayne 1995).

On the other hand, the Peruvian Foreign Trade Association, a private sector labour union, affirmed that results-based budgeting fails in corresponding between budget allocations and final results, a consequence of poor monitoring that measures allocated resources in the following fiscal year. According to the association: "Given that pertinent information about beneficiary necessities is not collected, there are people that, despite having overcome poverty, are not able to insert themselves in the market, and for that reason, continue participating in said programmes, which is the reason why the "leakage" is not necessarily due to new beneficiaries that should not be there" (*Perú21* 2013a).

An article in *El Comercio*[65] on serious deceleration in the reduction of malnutrition since 2012 affirmed that there is poor administration of results-based budgeting and declared it to have "stopped giving results" (*El Comercio* 2014b). The article critiqued the methodology of results-based budgeting, the programmes of which intend to address the symptoms of poverty (e.g., malnutrition) without directly fighting what causes poverty. It noted that "maybe it is time to delve into the programmes that empower families to produce and pull themselves out of poverty by themselves, like the successful 'Sierra Emprendedora (Haku Wiñay)'[66] from

[65] *El Comercio* is a Peruvian newspaper with an average daily circulation of 100,000 copies (KPMG 2014). Founded in 1839, it is the second oldest and most important newspaper in the country.

[66] Since 2009, "Mi Chacra Emprendedora (Haku Wiñay)" has promoted the development of productive capacities and rural enterprises in rural households in extreme poverty that contribute to the generation of income and income diversification as well as improving food security. The programme involves the provision of training, technical assistance and assets for use and direct benefit of the population in the process of inclusion. Specifically, it provides technical assistance to: (i) strengthen and consolidate family production systems, (ii) improve health and housing, (iii) promote inclusive rural businesses and (iv) promote financial capabilities (FONCODES 2014).

Foncodes, instead of continuing to concentrate on the programs that simply try to combat the results of poverty" (*El Comercio* 2014b).

Furthermore, the largest budget allocations on education and health has not translated into better quality according to the indicators, although greater coverage measured by enrolment in education and expansion of health care has been achieved (Alvarado and Morón 2011). According to Vice Minister of Property of the Ministry of the Economy and Finance Carlos Oliva, Peru faces many social challenges, but the important part is that the country has advanced in the right direction since results-based budgeting was adopted: "There are increasingly more entities that define not only the costs they require for activities but also that clearly determine the products they will provide to the population, whether in number of improved schools, kilometres of constructed highways or number of children with completed vaccinations, among others" (Oliva 2014).

Changes to Data Collection Processes

While the Law of Transparency and Access to Public Information and results-based budgeting are important processes that guide the government towards more transparency and efficiency, in order to understand the collection of data and production of statistics for social indicators, it is necessary to observe the evolution of INEI practices over many years, especially in the past few years. The Peru research team interviewed the Executive Director of Surveys and Census of the INEI, who provided the details for the narrative that follows.

Since its inception, the INEI has always had a central headquarters with decentralised offices located in every department in Peru. The advantage of these departmental offices – being deconcentrated offices, not decentralised offices – is that they do not depend on the regional government, but rather the central headquarters in such a way that they all use the same methodology and standardised processes. With censuses and surveys, it is convenient to have all entities aligned with the same methodology, instructions and interpretations.

In the 1990s, before the focus on decentralisation, there was already some talk about regional politics and the need to collect data at the regional level. Despite having certain deconcentrated offices, the INEI did not have a single survey that collected data at the regional or departmental level at that time, despite demand from data users. In 2001, the National Household Survey was designed to annually supply regional information (quarterly at the territorial level, monthly at the national urban-rural level). In 2007, the public sector and especially the health sector voiced the need for a Demographic and Health Survey at the departmental level that incorporated some of the standards of results-based budgeting.

Over the last 10 or 15 years, many of the changes in the methodology and data collection for social indicators of the INEI have been incentivised by external institutions. In 2000, the World Bank evaluated the National Household Survey conducted by the INEI. At the time, the INEI only measured the conditions of life and poverty and the methodology was identical to that used by the UN Economic Commission for Latin America and the Caribbean, the only difference being that the INEI measured the national poverty line by expenditure rather than earnings. This strategy, which has been in use since the 1980s, was recommended by the World Bank and it seems that differentiating itself from the UN Economic Commission for Latin America and the Caribbean in this respect was the correct decision. Another methodological principle followed by the UN Economic Commission for Latin America and the Caribbean that has generated inconsistencies is the establishment of the reference population from the percentile whose expenditure, when translated into calories, is the same as the minimum level of nutritional requirement. This principle caused problems for the measurement of poverty by the INEI until approximately 2000. In 2001, the problem was identified and corrected.

At the end of the 1990s and beginning of the 2000s), under the framework of the Programme for the Improvement of Surveys and Measurement of Living Conditions in Latin America and the Caribbean,[67] the INEI received support from the best Latin American specialists to develop new questionnaires and improve the processes and measurement of the National Household Survey. Notably, specialists from the UN Economic Commission for Latin America and the Caribbean supervised the sample design. As part of these reforms, the decentralisation of activities towards regional offices was incentivised and quarterly surveys were stopped so that there would be enough funding for an annual survey on living conditions with data disaggregated by department (this was reversed by the succeeding administration in 2004). In 2001, additionally, charges to access databases were eliminated in line with conceiving statistics as a public good that should be under an open access arrangement that includes an online portal. In order for databases to be properly interpreted, training workshops on the management of National Household Survey database were organised.

The INEI failed to publish annual statistics on poverty between 2004 and 2007, which caused a reduction of public confidence and trust in the institution. In 2007, the INEI, in agreement with a suggestion from the World Bank, began to receive support from an external Advisory Committee to improve the methodology and data collection in surveys that measure poverty (Vakis and Schmidt 2010). The Advisory Committee was comprised of "public organisation experts on poverty (like the Ministry of Economy and Finance, and the Central Bank), the Peruvian academia (Universidad Católica, Universidad del Pacífico, Grupo de Análisis para el Desarrollo, and the Universidad de San Martín), and international organisations (like the Institut de Recherché pour le Développement, the Inter-American Development Bank, the Economic Commission for Latin America and the Caribbean, and the World Bank)" (Vakis and Schmidt 2010, 1). The principal objectives of the Advisory Committee included creating a census that would produce poverty estimations in Peru that were comparable across time, and supervising the work of a technical inter-institutional group (comprising the INEI, World Bank and others) responsible for implementing its recommendations (Vakis and Schmidt 2010).

Based on the Advisory Committee's experience over 2007-2009, certain lessons were learned. First of all, the committee worked with short- and long-term objectives. In the short term, an appropriate methodology to measure poverty was proposed so that estimations were comparable over time. In the long term, the committee intended to improve "the pending matters in a larger process to measure well-being (among others, an update of calorie requirements and demographic changes resulting from the new census)" (Vakis and Schmidt 2010, 3). Importantly:

> They emphasised transparency from the beginning, not only with the public but also between the Committee and INEI. They advanced systematic efforts of diffusion about the Advisory Committee's work, among others, through the dissemination of data, the presentation of programmes and methodological summaries on the INEI's website. This permitted the interested parties to replicate the processes and verify the results. With it, trust in the [Advisory Committee] and work of the INEI increased and strong interest was gained through the media and the acceptance of results. . . The relationship with the media was key to transcend the emphasis on the credibility of the numbers and focus on the discussion of the implications of policy, tendencies, and projections (Vakis and Schmidt 2010, 3).

As a result of the Advisory Committee's experience, more precise measurement of poverty was achieved. Estimations are more transparent and reliable (any data user can replicate the processes to verify the

[67] The programme has been implemented by the World Bank, Inter-American Development Bank and UN Economic Commission for Latin America and the Caribbean since 1996. In Peru, the INEI was provided with technical assistance and financial support.

veracity of resulting statistics), the credibility of information provided by the INEI has improved and the INEI is more visible due to a new relationship with the media (Vakis and Schmidt 2010). In 2007, since most data users are researchers, the decision was made to listen to their recommendations in order to see what type of needs they had in terms of the data that the INEI produces. Their recommendations have contributed to the improvement of data quality.

By 2011, advancements had led to the development of surveys with disaggregated data available at the provincial level. The household surveys conducted by the INEI no longer use paper – data are collected with tablets, which considerably shortens the time necessary to process data. The use of information and communications technologies allows for information collected in the field to be released in real time to a server that permits access to certain users, such as ministries. This improves measurement because users can report problems with information during the fieldwork phase of the data collection process and the INEI can correct them before publishing a definitive set of statistics. Therefore, there is currently a form of feedback between the INEI and data users during the statistical production process, with the finalised statistics being correct thanks to the shared work of the INEI and data users. Another technology that is currently used for data collection is GPS. Surveyors carry one with them when visiting households, which enables fieldwork supervision and mapping households using different social indicators.

Limitations on Data Collection in Peru

In the 1980s and 1990s, the surveyed population did not recognise the INEI as a core government institution responsible for data collection and the production of national-level statistics. The Executive Director of Surveys and Census confirms the INEI's invisibility during these decades. The visibility level of the institution is important for attaining legitimacy within households. Notably, it generally did not provide information to those surveyed. This was a major problem because it increased the number of no responses. For this reason, the INEI ran a communications campaign with the objective of increasing its recognition as the government institution in charge of the census in Peru. Another strategy that helped improve the visibility of the INEI was working since 2001 on increasing the transparency of databases in line with the Law of Transparency and Access to Public Information and training data users to work with databases.

Currently, data collection and access to households is limited, not entirely due to the level of visibility of the INEI as citizens' insecurity (at least in poorer districts) plays a role. In some areas, mistrust of the government negatively affects the entities that collect statistical data. The INEI, recognised as a core government institution, is often regarded with disapproval, which negatively predisposes the population and increases the number of no responses. However, the Executive Director of Surveys and Census noted that this is a problem not only in Peru, but also other Latin American countries, with the emblematic case being Argentina.

Furthermore, there are deficiencies in the decentralisation process with respect to statistical data. Relative to Lima, the poorest departments experience a comparative delay in the processing of such data. Regardless, statistical data should serve to further and better guide the policies of regional governments. In the words of the Executive Director of Surveys and Census: "If not, there would be new plazas, buildings or bridges not where they should be, but rather where the politicians think to install them on a whim."

Given the current situation of data collection and processing, the Peru research team believes that the INEI is responsible for managing too much data. As a consequence of the results-based budgeting approach, there was a considerable increase in the use of specialised surveys after 2008, all of which have been financed by the government. The government requires data from ministries for indicators on all sectors (education, health, labour, etc.), but the law states that the INEI is responsible for collecting sectoral data, which obliges the institution to undertake approximately 20–25 surveys annually. Being the only government institution

responsible for specialised data collection, the INEI has too many surveys and too many sectors to serve effectively.

In order to address this situation, the INEI is working towards the standardisation of an information registry. For example, how are crimes in Peru registered? They are recorded in notebooks and papers at the country's police stations in different ways. There is no standardised process for all police stations to follow to register crimes in a simple way. Moreover, there is no system that addresses corruption or the distortion of registration. The lack of such a process and system influences the veracity of national statistics because administrative data are the primary material with which authorities work to produce statistics in Peru. It is also important to digitalise the information registry, which would greatly simplify data collection and statistical production at the national, regional and province levels across public entities and thus alleviate the responsibilities of the INEI.

Conclusion

This report applied a data quality assessment framework to test the state of data in Peru against candidate post-2015 targets and indicators. Following discussions with stakeholders, the Peru research team also developed national targets and indicators under selected goal areas that could measure progress on the post-2015 agenda in the country. The report's conclusions are as follows.

- The framework used in this study proved to be a great tool that can systematise procedures to generate a set of national targets and indicators under each of the selected goal areas. The steps detailed in the *Methodology and Implementation Guide* facilitated the identification and evaluation of datasets to measure each of the proposed indicators as well as the identification of adequate baseline years for these indicators. The framework also helped identify which indicators had data that could be disaggregated to inform specific public policies. In this study, only seven goal areas were evaluated, but the guide could be used to evaluate any goal, target or indicator proposed for post-2015.

- In terms of the role that has to be played by a national statistical system in the post-2015 period, a decentralised national statistical system, like that in Peru, has deficiencies with regard to data quality. Poor regions experience significant difficulties in gathering and reporting data and information, given that they do not necessarily have skilled human resources. Therefore, it is necessary for the INEI to work together with decentralised offices at different levels of government – district and province in particular – according to standardised procedures in order to generate good quality data.

- The INEI did not have adequate capacity in terms of personnel and infrastructure for effective data collection and statistical production. The government's demand for data posed a major challenge to the INEI. This has to be taken into account when designing the SDG monitoring system. It is necessary to increase the budget and build the capacity of the INEI to meet the demand for data and statistics in upcoming years.

- With regard to the development of indicators for the post-2015 agenda, a challenge for national statistical systems is to first measure the MDG indicators, since it has not been possible to measure them using existing datasets in many cases. Subsequently, it is necessary to include new questions in censuses and surveys in order to be able to measure the indicators proposed in country studies and validated by stakeholders in each country.

- Governments must develop SDG monitoring systems in order to track progress on the targets under each SDG. It is necessary for all government institutions to embrace the finalised indicators and incorporate them as part of their agendas.

- With regard to regional interests, the post-2015 agenda provides a chance for the Latin American region to pay greater attention to inequality within each country. Although poverty rates have decreased in recent years in almost all countries in the region, gaps between different groups (e.g., indigenous and non-indigenous peoples) have worsened over time. Prioritising disaggregated data for SDG indicators at the national level will help reduce inequality within countries.

- The post-2015 agenda's timeline for achieving results is 2030. An agreement among all political parties in each country is required since the SDGs will be part of the national agenda for more than one government's term.

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Annex 1. Targets and Indicators Examined for Peru

Table 1.1 End poverty: Targets and indicators Target	Indicator	Definition/Note
Global		
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Refers to the percentage of the population living on less than US$1.25 at 2005 prices (World Bank 2014c).
Reduce poverty	Proportion of population below US$2 (PPP) per day	Refers to the percentage of the population living on less than US$2 at 2005 prices (World Bank 2014d).
	Proportion of population living below national poverty line	Refers to the percentage of the population living below the national poverty line. The poverty line is defined as the threshold below which individuals in the population are considered poor and above which they are considered non-poor. The threshold is defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services (ILO 2014). Because prices vary among sub-regions in Peru, poverty lines are differentiated by sub-region and area. Calculation involves using expenditure before taxes.
	Share of employed persons living below the nationally-defined poverty line	The working poor or the number of employed persons living in households with incomes below the nationally-defined poverty line are based on real disposable income. The poverty line is defined as the threshold below which individuals in the population are considered poor and above which they are considered non-poor. The threshold is defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services (ILO 2014). Because prices vary among sub-regions in Peru, poverty lines are differentiated by sub-region and area.
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Stunting: Proportion of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median height-for-age of the reference population (UNICEF 2014). This indicator will be disaggregated by age group (under and over three years of age).
National		
Reduce hunger	Percentage of the population with caloric deficiency	The minimum daily caloric requirement is calculated for each person according to their age, region of residence and geographic area.
Reduce poverty	Proportion of households with children under 3 years below national poverty line	The threshold is defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services.
	Proportion of indigenous population below national poverty line	The threshold is defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services.
	Proportion of rural poverty	The threshold is defined as the per-capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services.
Cross-cutting: Ensure quality education for all		
	Average level of development of girls and boys in motor dimension	Average score obtained from the dimension of Physical Health & Well-Being of the Early Development Instrument.

Increase development in early childhood	Average level of development of girls and boys in the dimension of language and cognitive development	Average score obtained from the subscale of Language & Cognitive Development of the Early Development Instrument.
	Average level of development of girls and boys in socio-emotional dimension	Average score obtained from the subscale of Social Competence of the Early Development Instrument.

Table 1.2 Ensure quality education for all: Targets and indicators

Target	Indicator	Definition/Note
Global		
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Refers to the proportion of children (girls and boys) who receive at least one year of pre-primary programmes. In the Peruvian context, this includes children aged three, four and five years.
	% of girls and boys who complete primary school	Refers to proportion of girls and boys who complete primary school.
	% of girls and boys who complete secondary school	Refers to proportion of girls and boys who complete secondary school.
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Assessment of learning outcomes: Evaluation of an individual's achievement of learning objectives, using a variety of assessment methods (written, oral and practical tests/examinations, projects and portfolios) during or at the end of an education programme (UNESCO 2012). National (or sub-national) assessment: Large-scale assessment surveys designed to describe the achievement of students in a curriculum area and to provide an estimate of the achievement level in the education system as a whole at a particular age or grade level. This normally involves administration of tests either to a sample or population of students (Ho 2013).
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Technical and Vocational Education and Training is concerned with the acquisition of knowledge and skills for the world of work. Various terms have been used to describe elements of the field that are now conceived as comprising Technical and Vocational Education and Training. These include: Apprenticeship Training, Vocational Education, Technical Education, Technical-Vocational Education, Occupational Education, Vocational Education and Training, Professional and Vocational Education, Career and Technical Education, Workforce Education, Workplace Education, etc. Several of these terms are commonly used in specific geographic areas (UNEVOC 2012). In the Peruvian context, this includes Productive and Technical Training. The National Household Survey includes a question about education in a Productive Technical Education Centre (CETPRO, for its Spanish acronym,) or Centre for Employment Training (CENECAPE, for its Spanish acronym).
National		
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys with disabilities who access a school programme	Children with disabilities considered in this study are those who have a special educational need such as: (i) intellectual or mental disabilities, (ii) difficulty in understanding or in using language (spoken or written), (iii) hearing impairment, (iv) language disability, (v) visual impairment (not including impairments that can be corrected with glasses), (vi) motor disabilities, (vii) autism, (viii) a chronic disease or (ix) multiple disabilities (MINEDU 2010).
	% of indigenous girls and boys receiving intercultural bilingual education	Intercultural bilingual education is a model of intercultural education that involves teaching simultaneously in two languages in the context of two different cultures. Intercultural bilingual schools must meet a linguistic criterion: the majority of students should have as their native language the original language spoken in the community, district, province or region; in addition, the native language should be the language that predominates among students and the community (MINEDU 2013).

	% of girls living in rural areas who complete secondary school	Refers to the proportion of girls living in rural areas who complete secondary school.
Improve the quality of education at all levels	% of 15-year-old students who achieve proficient levels in reading, mathematics and science in the Programme for International Student Assessment (PISA)	For PISA, the range of difficulty of the tasks is represented by six or seven levels of proficiency (OECD 2014). Passing level 3 and achieving levels 4, 5 or 6 will be considered as proficiency.
Increase development in early childhood	Average level of development of girls and boys in motor dimension	Average score obtained from the subscale of Physical Health & Well-Being of the Early Development Instrument.
	Average level of development of girls and boys in the dimension of language and cognitive development	Average score obtained from the subscale of Language & Cognitive Development of the Early Development Instrument.
	Average level of development of girls and boys in socio-emotional dimension	Average score obtained from the subscale of Social Competence of the Early Development Instrument.
Ensure a safe, secure and effective learning environment in the classroom	Proportion of public schools with classrooms in good condition	Refers to the percentage of public schools with ceilings, walls and floors constructed with good material and in good condition. Also, materials (e.g., blackboards, chairs) are required to be in good condition.
	Proportion of public schools with hygienic services in good condition	Refers to the percentage of public schools with hygienic services that are connected to the public sewerage system or a septic tank (as declared by directors of reporting educational institutions).
Access to quality higher education	% of students living in poverty who have access to higher education	Refers to the percentage of young people aged 16 to 22 who are in the bottom two quintiles of socio-economic status and have access to higher education.
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
Improve security and reduce violence	% of girls and boys affected by violence in school	Refers to proportion of children affected by violence in school. Violence might be physical or psychological.

Table 1.3 Create jobs, sustainable livelihoods and inclusive growth for all: Targets and indicators

Target	Indicator	Definition/Note
Global		
Achieve full and productive employment for all, including women and young people	Labour force participation rate	The labour force participation rate is the labour force as a percentage of the working-age population (ILO 2014). This definition is consistent with that used by the Peruvian Ministry of Labour and Employment Promotion. The working-age population is 14 years or older (MINTRA 2012c).
	Time-related underemployment (thousands)	Persons in time-related underemployment comprise all persons in employment, who satisfy the following three criteria during the reference period: (i) are willing to work additional hours, (ii) are available to work additional hours (i.e., are ready, within a specified subsequent period, to work additional hours, given opportunities for additional work) and (iii) worked less than a threshold relating to working time (i.e., persons whose hours actually worked in all jobs during the reference period were below a threshold, to be chosen according to national circumstances). For details, refer to the resolution concerning the measurement of underemployment and inadequate employment situations (ILO 2014).
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Data on earnings are presented, whenever possible, in nominal terms and on the basis of the mean of monthly earnings of all employees. The earnings of employees relate to the gross remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done

		together with remuneration for time not worked, such as annual vacation, other types of paid leave or holidays. Earnings exclude employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay. Statistics of earnings relate to the gross remuneration of employees (i.e., the total before any deductions are made by the employer). Data are disaggregated by economic activity according to the latest version of the International Standard Industrial Classification of All Economic Activities available for that year. Economic activity refers to the main activity of the establishment in which a person worked during the reference period and does not depend on the specific duties or functions of the person's job, but on the characteristics of the economic unit in which this person works.
Support inclusive growth and reduce inequality	Palma ratio	Refers to the ratio of the income share of the top 10% to the bottom 40%. Calculation involves using after-tax figures.
	Gini coefficient	The Gini coefficient is a number between zero and one that measures the relative degree of inequality in the distribution of income. The coefficient would register zero (minimum inequality) for a population in which each family (or unattached individual) received exactly the same income and it would register a coefficient of one (maximum inequality) if one family (or unattached individual) received all the income and the rest received none. Calculation involves using after-tax figures.
	Growth rate of income of the bottom 40%	Income quintiles are used to measure the growth rate of the bottom 40% for all households. Members of the population are ranked from lowest to highest by the value of their adjusted after-tax household income. The ranked population is then divided into five groups of equal numbers of units, called quintiles. The lowest income quintile represents the 20% of the population whose income is lowest. By the same token, the highest quintile represents the 20% of the population whose income is highest. Calculation involves using after-tax figures.
	Gross fixed capital formation (% of GDP)	Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, etc.), plant, machinery and equipment purchases and the construction of roads, railways and the like, including schools, offices, hospitals, private residential dwellings and commercial and industrial buildings (World Bank 2014b).
National		
Promote decent work	Child labour	Refers to the percentage of children under 14 years of age who work.
	Proportion of informal workers	Refers to the percentage of the labour force that works in the informal sector.
Achieve full and productive employment work for all	% of youth aged 18–24 who work at a formal firm	Refers to proportion of youth aged 18–24 who work in the formal sector.
Ensure equal pay for equal work	Wage gap between men and women	Refers to women's median hourly wage as a percentage of men's median hourly wage.
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
Monitor and end discrimination and inequalities in economic life on the basis of social status	Wage gap between indigenous and non-indigenous peoples with comparable levels of education	Refers to the indigenous median hourly wage as a percentage of the non-indigenous median hourly wage.

Table 1.4 Ensure sustainable energy and develop infrastructure for all: Targets and indicators		
Target	**Indicator**	**Definition/Note**
Global		
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	This indicator measures the number of people who use the internet for every 1,000 people.
	Average bandwidth speed (megabits/second)	Measurement of the ability of an electronic communications device or system (such as a computer network) to send and receive information, measured in megabits per second (mbit/s).
	% of the population with access to an all-season road	"With access" means that the distance from a village or household to an all-season road is no more than 2 kilometers; otherwise, a walk of no more than 20 minutes or so is required to reach an all-season road. An "all-season road" is a road that is motorable by the prevailing means of rural transport (often a pick-up or a truck which does not have four-wheel drive) all year round. Predictable interruptions of short duration during inclement weather (e.g., heavy rainfall) are permitted, particularly on low-volume roads (World Bank 2005).
	% of adults with an account at a formal financial institution	Denotes the percentage of the population with an account (self or together with someone else) at a bank, credit union, other financial institution (e.g., cooperative, microfinance institution) or post office (if applicable) (modified slightly from World Bank Global Index Glossary).
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	This indicator measures the number of hours for which electricity is available in a household within a given day. It is not directly applicable to Peru's context, so a proxy indicator has been included below to capture the number of households that have access to electricity all day for six or seven days per week.
	Rate of improvement in energy intensity	Energy required per unit (currency) of GDP, measured in primary energy terms and GDP. Primary energy refers to energy sources as found in their natural state (as opposed to derived or secondary energy, which is the result of the transformation of primary or secondary sources) (OECD 2011).
	Share of the population with access to modern cooking solutions (%)	Access to modern cooking solutions is defined as relying primarily on non-solid fuels for cooking. Non-solid fuels include: (i) liquid fuels (e.g., kerosene, ethanol or other biofuels), (ii) gaseous fuels (e.g., natural gas, liquefied petroleum gas and biogas) and (iii) electricity. Solid fuels include: (i) traditional biomass (e.g., wood, charcoal, agricultural residues and dung), (ii) processed biomass (e.g., pellets and briquettes) and (iii) other solid fuels (e.g., coal and lignite) (World Bank 2011; Banerjee et al. 2013).
	Share of renewable energy to total energy consumption	Energy that is derived from natural processes (e.g., sunlight and wind) that are replenished at a higher rate than they are consumed. Solar, wind, geothermal, hydro and biomass are common sources of renewable energy (IEA 2014).
National		
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Population with access to adequate electricity (all day, 6–7 days per week)	This indicator can serve as a proxy for measuring "# of hours per day households have access to electricity on average."
	Population with access to adequate services for potable water	Refers to the percentage of the population with access to potable water directly from the public water system inside the house or building.
	Population with sanitation services	Refers to the percentage of the population who are connected to the public sewerage system or a septic tank.
Improve maintenance of public transport infrastructure	% of paved roads in the national road network	Refers to proportion of paved roads in the national road network.
	% of rehabilitated roads in the departmental road network	Refers to proportion of rehabilitated roads in the departmental road network.

Ensure access to safe, efficient and affordable mobility	Antiquity of vehicle fleet	Refers to the average number of years of the vehicle fleet in operation.
	Number of deaths from traffic accidents	Refers to the number of deaths from traffic accidents recorded by the National Police of Peru.
Ensure full access to developed infrastructure and communication technology	Localities with access to mobile services	Refers to the number of localities with access to mobile services (installed and operating).
	Localities with access to internet services	Refers to the number of localities with access to internet services (installed and operating).
Cross-cutting: Establish a sustainable, healthy and resilient environment for all		
Publish and use economic, social and environmental accounts in all governments and companies	% of environmental impact assessments for mining projects approved at the provided time	Refers to proportion of mining projects with environmental impact assessments approved timely by the General Directorate of Mining Environmental Affairs
Safeguard ecosystems and biodiversity	Mining environmental liabilities	Environmental liabilities refer to environmental damage, in terms of water, soil and air pollution as well as deterioration of natural resources and ecosystems, caused by mining companies during regular operations or unforeseen accidents.
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
Improve relationships between the government, companies and communities	Number of actions, programmes and projects to prevent socio-environmental conflicts	This indicator will consider the number of cases of conflict prevention attended to by the Office for National Dialogue and Sustainability.
	Number of mechanisms for citizen participation	This indicator will consider the number of processes of prior consultation. Enacted in 2011, the Prior Consultation Law (Law No. 29785) formally recognises the right of indigenous or native peoples to be consulted prior to legislative or administrative provisions that directly affect their collective rights, physical existence, identity, culture, quality of life or development (Ministerio de Cultura 2015).
	Accreditations for small mining producers and artisanal mining producers	This indicator will consider the number of small mining producers and artisanal mining producers accredited by the Ministry of Energy and Mining.
Promote rational, orderly and sustainable occupation of national territory	Local governments with approved territorial management instruments	Refers to proportion of local governments with territorial management instruments (e.g., ecological-economic zoning, territorial management) approved by the Ministry of Housing, Construction and Sanitation.
	Households with property titles	Refers to proportion of households with property titles registered in the National Superintendency of Public Registries.

Table 1.5 Establish a sustainable, healthy and resilient environment for all: Targets and indicators

Target	Indicator	Definition/Note
Global		
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Hazard: A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Includes: Avalanche, Cold Wave, Cyclone, Drought,

		Earthquake, Epidemic and Pandemic, Flood, Heat Wave, Insect Infestation, Landslide; NBC – Nuclear, Biological, Chemical, Storm Surge, Tornado, Tsunami, Volcano, Wildfire (UNISDR 2007). Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR 2007).
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	Forest: Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use (FAO 2012).
	Trends in coverage of protected areas	The indicator measures the policy response to biodiversity loss. An increase in protected area coverage indicates increased efforts by governments and civil society to protect land and sea areas with a view to achieve the long-term conservation of biodiversity with associated ecosystem services and cultural values (BIP 2014). Note: The data provided show how protected areas are managed based on International Union for the Conservation of Nature categories and include marine areas.
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	Integrated reporting is a process founded on integrated thinking that results in a periodic integrated report by an organisation about value creation over time and related communications regarding aspects of value creation. An integrated report is a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term (IIRC 2013). Large taxpayers are very different from other categories of taxpayers and present certain significant risks to effective tax administration. Major characteristics of large taxpayers include: concentration of revenues, complexity of the business and tax dealing, withhold agent or intermediary role, uses of professional tax advisors and possession of in-house tax organisation. Businesses may be publicly listed corporations, multinational companies or private groups (OECD 2009).
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	The System of Environmental-Economic Accounting contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics on the environment and its relationship with the economy. The system follows a similar accounting structure as the System of National Accounts and uses concepts, definitions and classifications consistent with it in order to facilitate the integration of environmental and economic statistics (UNStats 2014).
National		
Improve air and water quality	Air quality	This indicator will consider outdoor concentrations of fine particulate matter (PM10) in 10 prioritised cities.
	Drainage basins that pass environmental quality assessment	Refers to the number of drainage basins that pass environmental quality assessment according to the criteria of the Ministry of Environment. Environmental quality standards regulate the concentration levels of elements, substances or parameters (physical, chemical or biological) in the air, water or soil. Levels must not represent significant risk to the health of people or the environment (MINAM 2012a).
Address climate change	Rate of greenhouse gas emissions intensity	Greenhouse gas emissions refer to gigagrams of carbon dioxide equivalent, carbon dioxide, methane or nitrous oxide.
Safeguard ecosystems and biodiversity	Area reforested annually	Refers to hectares of land that are reforested annually.
	Mining environmental liabilities	Environmental liabilities refer to environmental damage, in terms of water, soil and air pollution as well as deterioration of natural resources and ecosystems, caused by mining companies during regular operations or unforeseen accidents.
	Investment in protected natural areas per hectare	Refers to total investment in protected natural areas by protected hectares, in local currency (soles).

Implement integrated solid waste management	Per capita spending on management of solid waste	Refers to total real per capita spending on solid waste management in the country.
Build resilience and reduce vulnerability to natural hazards	Economic losses in infrastructure due to natural disasters (% of GDP)	Refers to economic losses in infrastructure that an individual, person or institution may incur as a result of a natural disaster. The indicator is expressed as a percentage of the country's GDP.
Publish and use economic, social and environmental accounts in all governments and companies	% of environmental impact assessments for mining projects approved at the provided time	Proportion of mining projects with environmental impact assessments approved timely by the General Directorate of Mining Environmental Affairs.
Cross-cutting: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
Improve relationships between the government, companies and communities	Number of socio-environmental conflicts	Refers to the average monthly number of socio-environmental conflicts during the year.

Table 1.6 Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators

Target	Indicator	Definition/Note
Global		
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Refers to the number of children under five registered with the civil authority as a percentage of the total population of children under five.
	Proportion of adults with a basic legal identity document	Refers to the number of adults (individuals over 18 years of age) with a basic legal identity document as a percentage of the total adult population.
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Refers to the average number of days that elapse from the time of filing a case and receiving a verdict.
	Proportion of seats held by women and minorities in national or local level government	Refers to the proportion of women and minorities in the Peruvian Congress.
	% of adults with an account at a formal financial institution, disaggregated by sex	Denotes the percentage of population with an account (self or together with someone else) at a bank, credit union, other financial institution (e.g., cooperative, microfinance institution) or post office (if applicable) including individuals who have a debit card (Demirguc-Kunt and Klapper 2012). Note: This is the same indicator as used under energy and infrastructure, disaggregated by sex.

Improve personal safety	Prevalence of violence against women, including domestic violence	Violence against women is “any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” (UN 1993). Would likely be based on self-reporting (survey data).
	Violent death per 100,000 people	Classification of violent death includes killings in war or conflicts, non-conflict deaths and self-inflicted deaths (suicides), while non-conflict deaths include intentional homicide, killings in self-defense, killings in legal interventions and non-intentional homicide (UNODC 2014).
Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from a government official – “In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service”	Refers to the proportion of people who have paid a bribe in the past year at time of being surveyed.
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Refers to the proportion of eligible taxpayers who submit their taxes for a given tax year as a percentage of eligible taxpayers.
National		
Improve security and reduce violence	Social tolerance of child maltreatment	This indicator will consider parents who consider physical (and psychological) maltreatment to be valid for educating children.
	Women affected by domestic violence who make a denouncement	Refers to proportion of women affected by violence who make a denouncement. Violence is defined as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” (UN 1993).
	% of girls and boys affected by domestic violence	Refers to proportion of children affected by violence in home. Violence might be physical or psychological.
	% of girls and boys affected by violence in school	Refers to proportion of children affected by violence in school. Violence might be physical or psychological.
	Victimisation rate	Refers to proportion of people who have been victims of crime.
Increase social reintegration	% of re-entrants in prison population	Refers to proportion of re-entrants in the total prison population. A “re-entrant” is a person who registers two or more entrances to a prison, without discriminating if at the time of admission the person was sentenced or processed.
	Ratio between sentenced and processed as inmate	Refers to the ratio of sentenced inmates to processed inmates. Inmates are people in prison.
	Prison overcrowding	Refers to the prison population over holding capacity.
Establish a strong state and fight against corruption	Perceptions of corruption	Will use an index of perceptions of corruption. Perceptions of corruption are measured by a single question, the answers to which are recoded on a scale of 0–100, where 0 represents the perception that corruption is not widespread among public officials and 100 represents the perception that corruption is very widespread (see Carrión, Zárate and Seligson 2012).
Monitor and end discrimination and inequalities in	Wage gap between indigenous and non-indigenous peoples with comparable levels of education	Refers to the indigenous median hourly wage as a percentage of the non-indigenous median hourly wage.

economic life on the basis of social status		
Improve relationships between the government, companies and communities	Number of socio-environmental conflicts	Refers to the average monthly number of socio-environmental conflicts during the year.
	Number of actions, programmes and projects to prevent socio-environmental conflicts	This indicator will consider the number of cases of conflict prevention attended to by the Office for National Dialogue and Sustainability.
	Number of mechanisms for citizen participation	This indicator will consider the number of processes of prior consultation. Enacted in 2011, the Prior Consultation Law (Law No. 29785) formally recognises the right of indigenous or native peoples to be consulted prior to legislative or administrative provisions that directly affect their collective rights, physical existence, identity, culture, quality of life or development (Ministerio de Cultura 2015).
	Accreditations for small mining producers and artisanal mining producers	This indicator will consider the number of small mining producers and artisanal mining producers accredited by the Ministry of Energy and Mining.
Promote rational, orderly and sustainable occupation of national territory	Local governments with approved territorial management instruments	Refers to proportion of local governments with territorial management instruments (e.g., ecological-economic zoning. Territorial Management) approved by the Ministry of Housing, Construction and Sanitation.
	Households with property titles	Refers to proportion of households with property titles registered in the National Superintendence of Public Registries.
	Land titles processed on time	Refers to proportion of land titles processed timely.

Table 1.7 Establish a global partnership for sustainable development: Targets and indicators

Target	Indicator	Definition/Note
Global		
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Debt forgiveness or reduction shows the change in debt stock due to debt forgiveness. It is derived by subtracting debt forgiven and debt stock reduction from debt buyback (World Bank 2014a).
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	This indicator tracks the proportion of goods and services from low-income countries that enter Peru under preferential market access.
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering	Meant to provide an indication of countries' efforts to address tax evasion and prevent money laundering.
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Aid defined as official development assistance and other official flows. Productive sector defined as infrastructure, agriculture and manufacturing.
	Proportion of foreign direct investment to the productive sector	Productive sector defined as infrastructure, agriculture and manufacturing.
	Share of South-South cooperation to the productive sector	Productive sector defined as infrastructure, agriculture and manufacturing.

Annex 2. Sources to Monitor Post-2015

Table 2.1 Potential sources for monitoring the Post-2015 agenda in Peru

Sources	Description	Major Changes	Implication of Changes	Goal Area
National Census of Population and Housing – INEI	The National Census of Population and Housing is designed to provide information about the demographic and social characteristics of the population and households in Peru. It is a mandatory survey that has been conducted every decade. Data are available online for 1981, 1993 and 2007.	**Fixed period:** In accordance with INEI (2013b), the National Census of Population and Housing is conducted every 10 years approximately, as is stated in the Law on the Census (Law No. 13248). The next census will be conducted in 2017.	**Reliability:** A smaller (and fixed) interval for the collection of census data would enable more precise population projections as they could be updated with greater frequency.	• Education • Poverty • Environment
National Household Survey – INEI	The National Household Survey is the primary source for statistics about poverty, health, education, employment, governance, income and expenditure. It is a voluntary survey that has collected data every year (and quarterly since 2011). Information is available online from 1997 to 2014.	**Methodology:** In 2007, the sampling frame for the survey was changed (CAIMCP 2008). In 2012, the methodology was changed to update poverty lines and weights. They were previously based on the methodology in the National Household Survey of 1997 and it was updated with the 2007 Census information (INEI 2014c).	**Comparability:** The new methodology complicates long-term comparisons. Data are available for the new methodology from 2004, so the years between 2004 and 2014 are comparable.	• Poverty • Education • Employment and inclusive growth • Governance • Energy and infrastructure
Demographic and Health Survey – INEI	The Demographic and Health Survey gathers information about the health issues of children under 5 and women between 15 and 49 years of age. It is a voluntary survey that collects data every year. Information is available for 1996, 2000 and 2004–13.	**Representativeness:** Since 2009, the survey increased its samples in 430 clusters which enables better sub-regional inferences (INEI 2014b).	**Reliability:** Since 2009, reliable indicators have been available by region.	• Poverty • Governance
National School Census – Ministry of Education	The National School Census is the primary source of information about students, teachers and school infrastructure. It collects data on public and private educational institutions at all levels and modalities, except university education. It is a mandatory annual survey. Information is available online from 2004 to 2014.	There have been no major changes in terms of data collection methodology. Information sources for filling out the survey include school administrative records and inventories of furniture and equipment. Since 2010, the National Census of Population and Housing has also collected information about non-academic early education and alternative basic education (MINEDU 2011).	Since more information has been collected since 2010, more specific indicators can be calculated.	• Education
Census Evaluation of Students – Ministry of Education	The Census Evaluation of Students assesses reading comprehension and math. It is directed to children in the second grade at the primary school level or fourth grade of intercultural bilingual education. It is a mandatory annual evaluation. Information is available online from 2009 to 2013.	There have been no major changes in terms of data collection methodology.		• Education
Financial Inclusion Indicators of Financial Systems,	The *Financial Inclusion Indicators of Financial Systems, Insurance and Pension* contains information about the financial system's ability to make financial services available to the entire population. The report compiles administrative	There have been no major changes.		• Governance • Energy and infrastructure

Insurance and Pension – Superintendence of Banking and Insurance	banking and insurance data and is published twice per year in June and December. Information is available online from December 2010 to June 2014			
National Energy Balance – Ministry of Energy and Mining	*National Energy Balance* is a report that summarises information about the use of energy in Peru. One of its most important data sources is the Economic-Energetic Information System of the Latin American Energy Organization, the information of which is not publicly accessible. The Ministry of Energy and Mining publishes the report every three years. Reports were published in 2009 and 2012.	There have been no major changes in terms of data collection methodology. The Ministry of Energy and Mining does not collect its own data.*National Energy Balance 2009* and *National Energy Balance 2012* were published two years after their reference years. *National Energy Balance 2014* was published in January 2014.	Indicators cannot be calculated by year. Also, indicators are calculated two years after their reference years.	• Energy and infrastructure
Statistics on emergencies and damages – National Civil Defence Institute	Statistics available through the National Civil Defence Institute include those on personal damages (deaths and affected, missing or injured people) and property damage (housing and crops affected) caused by natural disasters. Information is available online from 2003 to 2013.	There have been no major changes in terms of data collection methodology. The institute's Centre for National Operations is responsible for statistical calculations. Data are registered per day. Every natural disaster that the institute is informed of appears online (INDECI 2014).	Deaths are only registered if the institute is informed of the disaster, so deaths can be underreported. The institute tries to update its website every day.	• Environment
Map of Analysis of Coverage Change of Forest to Non-Forest for Deforestation in the Peruvian Amazon – Ministry of Environment	The Ministry of Environment provides a geographic information system for monitoring changes in forest cover and land use, deforestation and forest degradation in Peru. Information is only available for eight sub-regions: San Martín, Loreto, Ucayali, Huánuco, Pasco, Amazonas, Cuzco and Junín. Data are occasionally collected with Landsat software. Information is available online for 2000, 2005 and 2009 and 2009–11 (there were two major projects).	In the first project, data were aggregated to show the average change in forest cover for the years 2000, 2005 and 2009 (MINAM 2014c). In the second project, data showed change between 2009 and 2010 and then between 2010 and 2011 (MINAM 2014b).	Information is only available online for these two projects. Though inter-institutional collaboration, the Ministry of Environment and Carnegie Institution for Science have continued measuring deforestation, but data have not been updated since 2011. There is no information about the frequency of data collection.	• Environment
National Service of Natural Areas Protected by the State – Ministry of Environment	The National Service of Natural Areas Protected by the State is a specialised technical body that provides data on natural protected areas in hectares. It offers administrative information about national and private protected areas. Information is available online from 2006 to 2013.	In accordance with the PENDES (INEI 2013b), an adequate, standardised methodology for calculations on the control and surveillance of protected natural areas has been in place since 2014. Also, 2014 now serves as the base year for annual updates of situational diagnostics on infrastructure, control and surveillance, granted rights and reforested territory in protected natural areas.	Since 2014, information has been disaggregated by year. Previously, information was only available on currently protected areas.	• Environment
Peruvian Congress (Statistical office)	Administrative data are available on members of Congress, mayors and regional presidents. Congressional elections are held every five years.	Before 2011, there were 120 members of Congress. Currently there are 130.	Indicators expressed in terms of percentages are comparable across years.	• Governance
National Superintendency of Tax Administration (Statistical Office)	Data are available on taxes, taxpayers and the tax base by year and sub-region of Peru. Administrative data are updated online monthly and currently available from 1998 to 2013.	Given that information is in the form of administrative data, there have not been major changes in terms of data collection methodology.		• Governance

Crime records of police stations in Peru – INEI	Crime records are sources of administrative data on types of crimes and where they occurred. Data are available online for 2011 and 2013.	In 2014, the INEI for the first time collected information from every police station in Peru (INEI 2014e). Before 2014, criminality indicators were calculated by the Ministry of the Interior, but there were problems with the registries of some stations.	Before 2014, the only crime statistic available was intentional homicide. Now various indicators can be calculated. Data can be disaggregated by type of crime and sub-region. Data only exist for 2011 and 2013. There is no information about dates for future data collection.	• Governance
Grants and projects of the Peruvian Agency of International Cooperation	The Peruvian Agency of International Cooperation provides information on public and private international cooperation grants managed by the government. Data have been updated since 2004 every time there is a new project. Data are not aggregated.	Given that information is in the form of administrative data, there have not been major changes in terms of data collection methodology. Free access is provided to a matrix of information about international cooperation activities.		• Global partnership

Annex 3. Data Quality Assessment Framework

Table 3.1 Data quality assessment framework		
Criteria	**Components (scale)**	**Sub-components (scale)**
Relevance	Completeness *Main Question: How complete are the data?*	Policy requirements for data collection
		Guidelines for data collection
		Procedures to coordinate statistical information
		Procedures to perform regular programme reviews
		Advisory council to advise on statistical priorities
		Availability of metadata
	User needs *Main Question: Do the data correspond with user needs?*	Agreements with user about the data content and priorities
		Procedures to track user needs and uses of the statistics
		Information about the survey objectives
		Legislative requirement to consult with the user on data collection
	User satisfaction *Main Question: Do the data satisfy user needs?*	Regular follow-ups with users to ensure user satisfaction
		Periodic consultations with users to check for their feedback
		Post-collection evaluations to compare data outcomes with user needs
Accuracy and reliability	Sampling and non-sampling errors *Main Question: What procedures are in place to reduce sampling and non-sampling errors?*	Measurement, evaluation and systematic documentation of sampling and non-sampling errors
		Mechanisms to ensure survey samples closely represent the population under study
		Quality assurance plan to prevent, monitor and evaluate non-sampling errors
		Compilation of user feedback to assess the relevance of the statistical study for user purposes
	Systematic and random errors *Main Question: What procedures are in place to reduce systematic and random errors?*	Systems to assess source data, intermediate results and statistical outputs
		Procedures to measure and reduce errors
		Regular assessment of data sources
		Systematic comparison of data and results with data and results from other existing sources to ensure validity
		Assessment report of statistical discrepancies in intermediate data
		Revisions analysed to improve statistical process
	Revision measures *Main Question: What measures are in place to revise the data?*	Policies for documenting principles and procedures for data revision
		Transparent and standard procedures for revising data
		Periodic quality reporting on the accuracy of data collected
		Public access to revision policies
		Information that clearly identifies preliminary and revised data
		Information that shows timely correction of errors found in published statistics
Timeliness and punctuality	Timeliness *Main Question: How quickly are the data released for dissemination or further processing?*	Release policy distinguishing between statistical outputs and the corresponding release procedures and timeliness targets
		Compliance with timeliness targets like the International Monetary Fund data dissemination standards
		Official calendar to announce advance release dates of major statistics
		Attainable schedule for the production process
		Maximum time allowed to elapse between the end of the reference period and the availability of the data
		Procedures to ensure timely and effective flow of data from providers
		Procedures to consult with users about the periodicity of the statistics
	Punctuality *Main Question: Whether the data are delivered according to the official due date?*	Action or contingency plans to address delays in data release date
		Procedures to regularly monitor the punctuality of every release as per the release calendar
		Notifications provided for any divergences from the advanced release time and publication of new release dates
		Formal explanations provided in the event of a delay
Accessibility and clarity	Accessibility *Main Question: How easily are the data accessible?*	Data dissemination strategy and policy, including clear pricing policy for governing the dissemination
		Policy or guideline to ensure that the data are made available to all users (including any restrictions that may apply)
		Strategies to release data, metadata and microdata
		Availability of publication catalogues for users
		Application of information and communication technology to disseminate data (in addition to hard copy publications)

		Navigable website that allows users to access data and metadata and facilitates self-tabulation in a variety of formats
		Periodic consultation with users to ensure dissemination formats satisfy user needs
		Procedures to request data that are not readily available to the public
	Clarity *Main Question: How clearly are the data presented to all users?*	Guidelines describing the appropriate content and preferred formats and style of the agency's outputs
		Presentation of statistics that facilitate proper interpretation and meaningful comparisons
		Regular production of up-to-date methodological documents and quality reports
		Staff training and development programmes for writing about statistics
		User support or information services for handling questions related to the data
		Procedure to annotate differences between international standards, guidelines or good practices
		Statistics presented in a clear and understandable manner
		Explanatory texts accompany the data
		Meaningful comparisons included in the publication
	Metadata and microdata *Main Question: How accessible and readable are the metadata and microdata?*	Policies to provide documentation on concepts, scope, classifications, data sources, basis of recording, compilation methods, etc. with the release of statistical results
		Procedures to ensure metadata are documented according to standardised metadata systems
		Procedures to ensure metadata are updated regularly
		Availability of microdata
		Rules and protocols for accessing microdata
Coherence and comparability	Consistency *Main Question: How consistent are the data internally or cross-sectorally?*	Policy promoting cooperation and exchange of knowledge between individual statistical programmes/domains
		Specific guidelines for individual statistical programmes/domains to ensure outputs obtained from complementary sources are properly combined
		Process-specific procedures to ensure outputs are internally coherent
		Information provided to users on the effects of changes in methodologies on final estimates
	Comparability *Main Question: How comparably are the data over time?*	Extent to which statistics derived from different sources or different periodicities are comparable
		Clear explanation and reconciliation provided for any methodological changes or differences
		Analysis of the major related statistics before designing a new individual statistical programme/domain
		Comparison provided with other statistical sources that contain the same or similar information (including identification of divergences with explanations)
	Standardisation *Main Question: Are the data produced using common standards with respect to scope, definitions, classifications and units?*	Common standards for concepts, definitions, units and classifications to promote coherence, consistency and comparability of the statistics
		Periodic assessment of compliance with international and national standards for statistical production
		Explanation provided for any deviations from international and national standards to users
		Reference made to common repository of concepts, definitions and classifications when designing a new individual statistical programme/domain
		Quality reporting includes assessment of internal consistency and comparability over time

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Centre for Policy Dialogue (CPD)
House 40/C, Road 32, Dhanmondi R/A
Dhaka 1209, Bangladesh
Telephone: (+88 02) 8124770, 9141734, 9141703
Fax: (+88 02) 8130951
E-mail: info@cpd.org.bd
Web: http://cpd.org.bd/

The Norman Paterson School of International Affairs
5306 River Building
1125 Colonel By Drive
Ottawa, Ontario K1S 5B6 Canada
Telephone: 613-520-6655
Fax: 613-520-2889
E-mail: international.affairs@carleton.ca
Web: https://carleton.ca/npsia/

Southern Voice on Post-MDG International Development Goals
House 40/C, Road 32, Dhanmondi R/A
Dhaka 1209, Bangladesh
Telephone: (+88 02) 8124770, 9141734, 9141703
Fax: (+88 02) 8130951
E-mail: southernvoice2015@gmail.com
Web: http://southernvoice-postmdg.org