



PUBLIC WORKS AND THE CREATION OF JOBS¹

Public investment is one of the instruments frequently used for counteracting the loss of jobs during economic crises, or to sustain and boost the initial phases of recovery. During the recent crisis, countries of the region increased resources for this by 20% on average. Nevertheless, governments do not usually have the tools for prioritizing projects on the basis of their impact on job creation. In order to correct this absence, the methodology described below aims at including the employment variable in the ordinary process followed in the selection of public works. The aim is to improve the efficacy of these policies for the creation of new jobs, especially at times when this goal becomes a priority.

1. Recent experience

During the recent crisis, countries of the region increased resources to fund public investments by 20% on average, which implied a formidable challenge in terms of implementation. The speed at which jobs can be created with an investment programme depends on institutional capacity and acquired experience. In the short term, assigning additional resources to existing programmes is simpler than creating new ones. For this reason, expediting public procurement procedures, as recorded in Chile, Paraguay and Peru are part of the measures recommended.

This type of response was applied in Brazil, by increasing the amount of resources for the Growth Acceleration Programme (PAC - *Programa de Aceleración de Crecimiento*). Project execution in Paraguay increased by 34% in the first semester of 2009 compared to the previous year; in Peru, by 72% in the first four months of 2009; and in Chile by 31.4% during the first semester of the same year. The above notwithstanding, most countries have no explicit prioritization criteria or mechanisms to implement more relatively labour-intensive public works in times of crisis.²

It is also important to keep in mind the significant differences in job creation depending on the type of project being executed. For example, available information on Chile shows a high coefficient in housing investments followed by waterworks, especially for conservation and sanitation, as shown in Table 1.

As shown, the criteria and procedures adopted in this case were designed for timely implementation and to have a significant impact on employment. Thus, the employment dimension was included in tender conditions, and enterprises were obliged to regularly submit information on the matter, with follow-up and control procedures. Moreover, by prioritizing the extension of projects implemented, significant time was saved, since three months after defining the investment plan, 66% of contracts had been implemented, reaching 100% budget execution by year's end. Positive outcomes suggest the need to systematize this experience, so that governments and especially the ministries in charge may have a proven method to work with efficacy in crisis situations.

¹ This note was prepared by consultant Mario Velásquez based on Patricio Aguilera's "*Propuesta de criterios y metodologías que contribuyan a la generación de empleo a partir de la inversión en infraestructura pública*". Valuable comments were received from Gerhard Reinecke, Senior Expert on Employment Policies, and from Andres Marinakis, Senior Expert in Labour Markets and Institutions, both at the ILO Subregional Office for the South Cone of Latin America.

² ECLAC-ILO (2009) "The employment situation in Latin America and the Caribbean", ECLAC-ILO Bulletin Number 2, September 2009.

Table 1
Chile: Estimated average employment coefficients, 2009
(per \$1MM* invested in each investment type)

Type of investment	Monthly employment coefficient per one million pesos	Annual employment coefficient per one million pesos
Public works ^a	0,574	0,0478
- Roadworks	0,527	0,0439
- Waterworks	1,069	0,0891
- Ports	0,442	0,0369
- Architecture	0,424	0,0353
- Airports	0,240	0,0200
- Rural drinking water	0,333	0,0278
Health ^b	0,3350	0,0279
Housing & Urban Planning ^b	1,5972	0,1331
Interior and others ^b	0,4400	0,0367

Source: Prepared by the author, based on the documents mentioned

Note:

a/ *Dirección de Planificación* (Dirplan) 2009. Actual coefficients from the Ministry of Public Works Employment Plan (*Plan de Empleo Ministerio de Obras Públicas*).

b/ Estimates from the Budget Office (*DIPRES - Dirección de Presupuesto*), 2009 “*Informe de finanzas públicas, Proyecto de Ley de Presupuesto del Sector Público para el Año 2010*”.

* Equivalent to 1.800 US dollars at the average exchange of 2009.

2. Absence of the employment dimension in regular Public Works management

Establishing and preserving an appropriate system to analyse infrastructure investment and execution, are constant government concerns. During stable or normal economic periods, the majority of countries have a set of technical economic rules and procedures for regulating public investment, which in turn provide central, regional, and local governments with a portfolio of projects already designed and assessed.

In Chile, this set of rules and procedures is called the National Investment System (SNI – *Sistema Nacional de Inversiones*), used to foster investment initiatives considered to be most profitable based on social assessments. This system covers the entire investment process, from initial identification to operation, including all stages in between.³

In this way local, regional and central governments have an Integrated Project Bank (*Banco Integrado de Proyectos*), containing detailed information about these projects as well as national, regional, and special plans of the Ministry of Public Works. These are the pillars used to determine the final project portfolio to be implemented with public funding. Job creation has not been an incorporated variable, nor has it been relevant for defining or prioritizing projects in the regular public funding processes. Considering that public investment is an important countercyclical policy instrument in times of crisis, it is necessary to establish how, and at what level, decisions will be made to include employment as an additional criterion to those commonly used for prioritizing investment projects.

3. Employment and setting investment priorities

The following methodological proposal includes the employment dimension for selecting and prioritizing public investment projects, as well as a record and monitoring system.

³ Three successive phases in the life of any project can be identified during the process of transforming investment ideas: pre-investment, investment, and operation. In turn, the pre-investment process entails different stages depending on the amount of available information on each initiative (Idea, Profile, Pre-feasibility, feasibility, and design).

Selection of investment projects

Basic criteria to be considered for selecting investment projects based on their impact on employment are:

- a) Projects must be included in medium and long-term public investment plans, thus aimed at improving quality of life or strengthening productive and economic conditions. Initiatives prioritized by local governments are at a special advantage over those defined only by central government, since they lead to greater commitment on the part of authorities to do the work, with proper use and maintenance. These projects are usually smaller in relative size and amount, with a high impact on the use of labour in relation to the amounts invested, indicating that it is more likely the work will be executed by local enterprises with workers from the area.
- b) Projects must have a technical and economic assessment with positive social returns. Fully justified projects from a technical economic viewpoint, are essential to avoid risks of corruption and appropriation.
- c) Tenders must be ready to start at the work execution stage. Projects selected must be already in the pre-bidding or execution phase for direct management of their work, especially if certain contracts justify an extension of scope, while maintaining their returns. In the short term, the crucial variable is the speed at which available resources can be executed.
- d) Projects must be located in areas with high unemployment. Greater efficiency is achieved if the initiatives selected allow hiring local workers, or who live near the areas intervened, thus preventing unnecessary transportation costs, for example.

After a project portfolio is defined based on these criteria, the pre-selection process begins, establishing a ranking system based on levels of social and economic returns obtained beforehand. Thus, a highly profitable project, both socially and economically, is selected and assigned a high priority. Conversely, a less profitable project which is nevertheless acceptable according to country standards and that meets the above-mentioned criteria, is assigned a medium priority. Socio-economically less profitable projects should only be included in well-justified exceptions, but must meet all the above-mentioned selection criteria, and assigned a low priority.

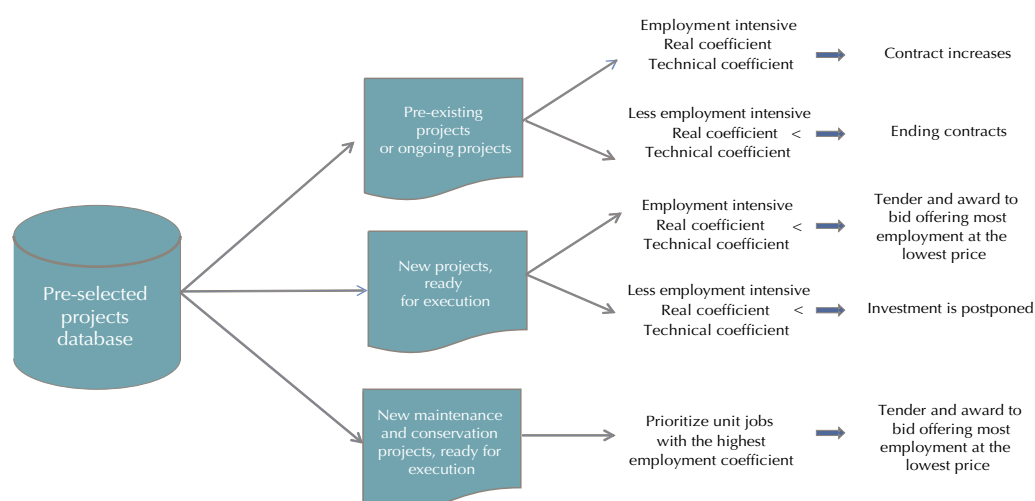
Ranking of intensive job creation projects

This stage involves variables to prioritize the most labour-intensive projects which in turn maintain or improve asset valuation, such as conservation and maintenance. The following is required for this purpose:

- a) Classify each project according to infrastructure types (roads, ports, building, sanitation, irrigation, and so on); categories (in the case of roads this includes dirt, gravel, asphalt or concrete) plus service levels (good, fair, or poor), and job unit types (filling potholes, cleaning, road signs, demarcation, and so on), all of which are necessary to maintain, improve, or increase their value.
- b) Define a final portfolio with prioritized projects. The main criterion is timeliness, which implies prioritizing all ongoing projects or soon to be executed. In addition, projects should be organized according to technical employment coefficient values (in units of time), for different types of work and job units. For pre-existing contracts, extensions are only advisable when portfolio projects have higher than average employment coefficient levels, since in times of crisis the aim is to create the greatest number of job posts.
- c) Define the execution mechanism and who will carry out the work. Contractors should be defined at this stage, by means of a rule setting the conditions for all bids or equivalent technical bids, which in turn defines the criteria for contract awarding to enterprises offering the best combination of prices and the creation of jobs. This will allow focusing the assessment on variables such as cost, quality, and employment, in circumstances in which timeliness is not a critical factor.

The following figure describes the process proposed, from initial pre-selection of projects to final contract tendering, when the average employment coefficient of the portfolio is considered as the technical coefficient, and the specific employment coefficient or unit jobs of a project is considered as the real coefficient.

Figure 1
Priority setting mechanisms and criteria



d) Record and monitoring system

Existing information suggests the majority of countries in the region have no record-keeping and monitoring system for their investment projects that allow having information available on capital-labour ratios. Also, given that the set of projects is usually heterogeneous due to the diversity of uses, weather or geographical conditions, and so on, it would be advisable to establish a criterion to subdivide the project portfolio by work “class”, on the basis of relevant homogeneous characteristics.

A monitoring system should be backed by a permanent and systematic system of records, showing to what extent infrastructure projects contribute to increase employment during contractive periods. A record with two items should be created for this purpose: a) job supply, obtained from enterprises that were awarded the tender contract, and b) information on actual employment levels, gathered while projects are being executed, using payment statements and progress reports.⁴

The first record item, compared to the second, would allow supervising bid compliance by enterprises that were awarded the contract. The second record item would allow creating relevant monitoring indicators, such as real employment coefficients per project, in turn, giving the respective authorities a way to periodically measure their contribution to employment. Accordingly, enterprises are required to periodically submit -together with monthly payment statements and progress reports- wage payment receipts and social payments of workers hired to carry out the awarded work (contractors and subcontractors). The information is subsequently entered into a database containing, at least, the contract, total amount, employment levels bid, and costs and quantity of real jobs created during project execution.

To monitor the degree of success it is necessary to define the portfolio capacity to create a number of jobs over and above the historical average for a given month —a measure considered as “real creation of employment”. This monitoring process will also permit ex post auditing to assess contract execution, as well as efficiency and efficacy in creating work.

⁴ This approach complements a proposal by Salomon, E. (2009) that lists ex ante, during, and ex post measures for direct and indirect types of employment created. See a technical proposal to implement an employment monitoring system for public investment in Paraguay (“Propuesta técnica para la implementación de un sistema de monitoreo del empleo en la inversión pública de Paraguay”) Ministry of Finance of Paraguay – ILO Subregional Office for the South Cone of Latin America.