

13 Impact of Increased Public Infrastructure Spending on Employment and Economic Growth

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Infrastructure development is a crucial bedrock strategy in sustaining high and inclusive growth in the medium term, while laying a solid foundation on which a *matatag, maginhawa, at panatag na buhay* will be built. The Administration's thrust to usher the "Golden Age of Infrastructure" through its Build, Build, Build Program will be backed by infrastructure programs and projects (PAPs) identified by the different implementing agencies under the 2017-2022 Public Investment Program (PIP). The government aims to raise public infrastructure spending¹ from 4.1 percent of the gross domestic product (GDP) in 2016 to 6.7 percent by 2022.²

Based on NEDA estimate,³ the increase in public infrastructure spending⁴ will potentially boost the national economy by stimulating production of output in different industries, contributing as much as ₱1.3 trillion to the country's GDP by 2022 (see Table 13.1). The bulk of increased economic activities is expected to come from infrastructure-related industries such as the construction sector (30%), land transport (3%), electricity (2%), non-metallic mining (2%),⁵ finance (3%), accommodation and food services (1%), and other service activities (1%).⁶ Likewise, positive indirect impact on trade (10%), food manufacturing (4%), and education (2%) sectors are expected, as domestic consumption benefits from the more robust economic growth (see Table 13.2).

Table 13.1. Estimated Impact of Increased Public Infrastructure Spending

ITEM	2017	2018	2019	2020	2021	2022
Additional Gross Value Added (GVA) (in Billion, current prices)	80	280	340	730	970	1,280
Percent to GDP (in %) ⁷	0.5	1.6	1.8	3.4	4.1	4.9
Additional Employment (number of persons)	130,000	450,000	500,000	1,100,000	1,400,000	1,800,000

Note: NEDA estimate is derived using NEDA's Input-Output Simulator (I-O) based on the 2012 I-O semi-closed domestic model.

¹ Public infrastructure spending consists of the national government infrastructure program and the transfers to local government units and government-owned and controlled corporations intended for infrastructure PAPs.

² Computed on a cash-basis.

³ Derived using the NEDA I-O Simulator (based on the official 2012 I-O table). In particular, the semi-closed domestic I-O type was utilized. The semi-closed domestic I-O type has two main features: (a) household final or personal consumption expenditures are considered endogenous; and (b) accounts for domestic inputs only.

⁴ The estimated additional GVA, percent to GDP, and employment figures were derived by simulating the impact of the incremental increase in public infrastructure spending. The incremental increase (shock) was computed as the difference between the baseline (i.e., if infrastructure spending stays at 4.1% of the GDP until 2022) and the Development Budget Coordination Committee-approved projected spending as of July 2, 2018, deflated to 2012 prices using estimates of implicit price index. Said projected spending will be supported by infrastructure programs and projects under the 2017-2022 PIP, among others. The estimated impact in a particular year may last beyond the year the expenditure was incurred.

⁵ Includes stone quarrying.

⁶ As inputs to mining.

⁷ The 2016 ratio of cash-based infrastructure spending to GDP of 4.1 percent was set as the baseline ratio.

Table 13.2. Top Ten Sectors Expected to Benefit from the Increased Public Infrastructure Spending, in terms of Higher GVA

SECTORS		PERCENT SHARE TO TOTAL INCREASE IN GVA
1	Construction	29.9
2	Wholesale and Retail Trade	9.9
3	Food Manufacturing	4.3
4	Land Transport	3.4
5	Financial Intermediaries	3.2
6	Electricity	1.8
7	Education	1.7
8	Non-Metallic Mineral Products Manufacturing	1.7
9	Accommodation and Food Services	1.3
10	Other Service Activities	1.2

Note: NEDA estimate derived using NEDA's I-O Simulator based on the 2012 I-O semi-closed domestic model.

The boost in public investments on infrastructure over the medium term is envisioned to generate additional employment (directly and indirectly) of about 1.8 million by 2022 (see Table 13.1). If realized, this will contribute in achieving the target in the Philippine Development Plan (PDP) 2017-2022 to reduce the unemployment rate in the country, from 5.5 percent in 2016 to around 3-5 percent in 2022.

Similarly, more than half of the estimated employment to be generated is expected to come from infrastructure-related industries such as the construction sector (59%), land transport (11%), non-metallic mining (1%), metal fabrication (1%), precious metals mining (1%),⁸ and other service activities (2%). Increased consumption and food manufacturing will also lead to higher employment in trade services (12%), agriculture-related sectors (4% in palay and corn, 1% in agricultural services) and education (1%) (see Table 13.3).

Table 13.3. Top Ten Sectors Expected to Benefit from the Increased Public Infrastructure Spending, in terms of Increased Employment

SECTORS		PERCENT SHARE TO TOTAL INCREASE IN EMPLOYMENT
1	Construction	59.1
2	Wholesale and Retail Trade	11.8
3	Land Transport	11.0
4	Palay and Corn	3.6
5	Other Service Activities	2.0
6	Agricultural Activities and Services	1.1
7	Education	1.0
8	Precious Metals Mining	1.0
9	Fabricated Metal Manufacturing	0.9
10	Non-Metallic Mineral Products	0.9

Note: NEDA estimate derived using NEDA's I-O Simulator based on the 2012 IO semi-closed domestic model.

⁸ Precious metals mining accounts for 17.2 percent of the intermediate inputs to basic metals industry, while basic metals industry accounts for 15.7 percent of the intermediate inputs to the construction sector.