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Enhancing PIM in the LAC Region: Insights from Korea's PFS System and Institutional Framework

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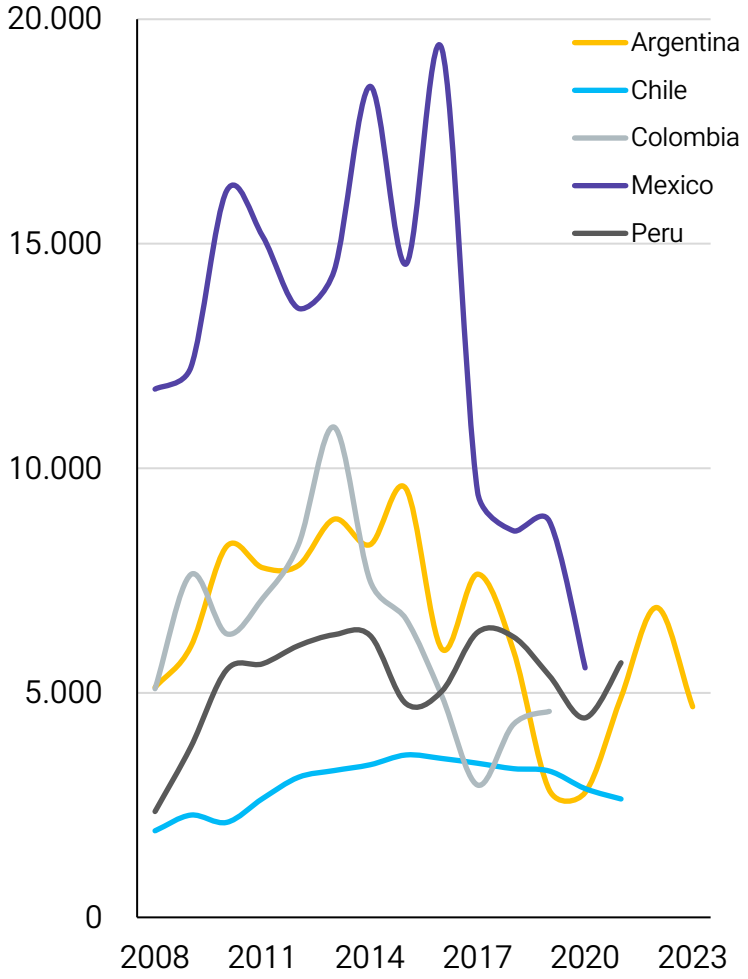
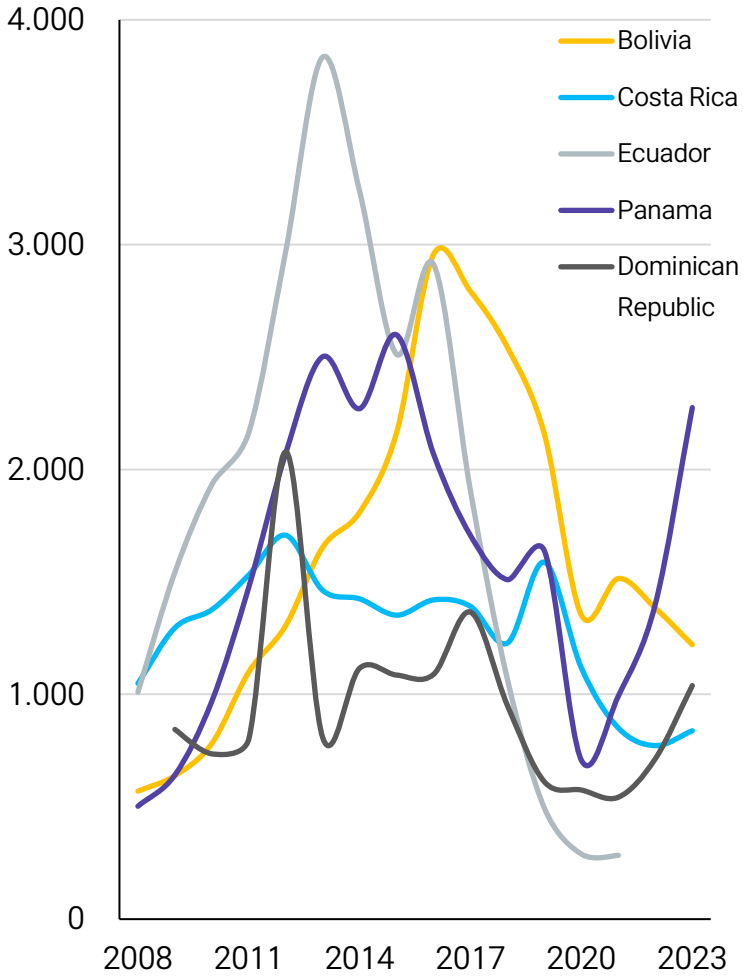
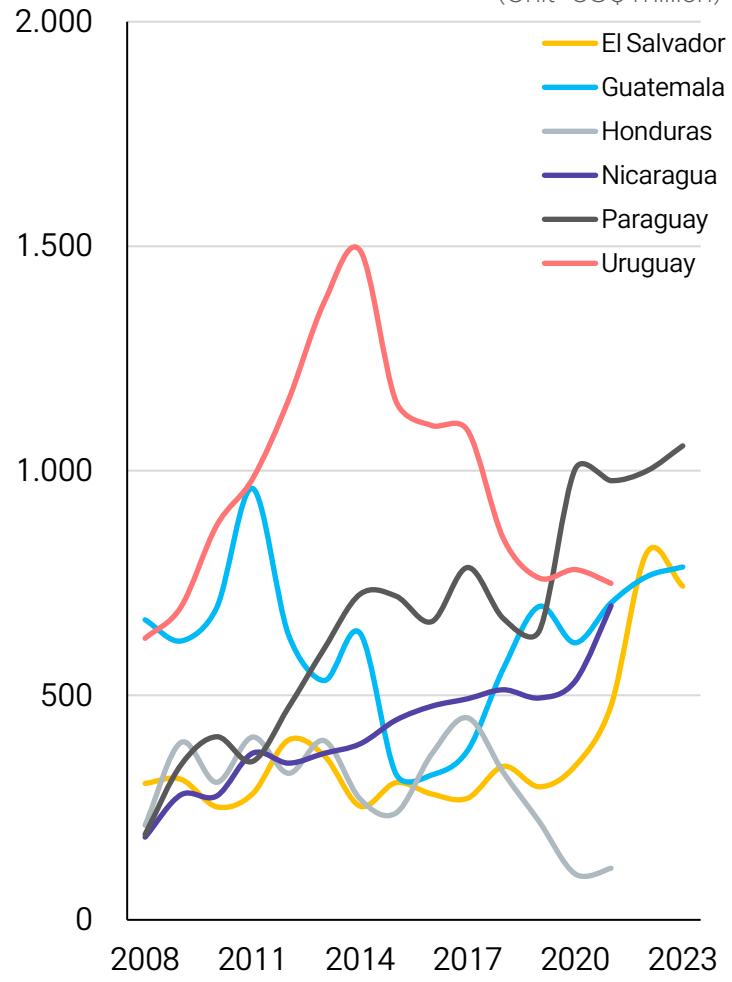
Current Status of Infrastructure Investment in the LAC Region

Public investment in economic infrastructure in LAC (2008~2023)

(Unit: US$ million)







Source: Infralatam

Current Status of Infrastructure Investment in the LAC Region

Estimation of infrastructure gap in LAC region by IDB

(Unit: US$ billion)

	TYPE OF INVESTMENT	New investment	Maintenance and asset replacement	Total gap	Annual investment needed to close gap (% of GDP)
WATER AND SANITATION	SAFE ACCESS TO WATER (HIGH)	90.6	52.0	142.6	0.20%
	SAFE ACCESS TO SANITATION (HIGH)	148.5	65.9	214.4	0.30%
	WASTEWATER TREATMENT	16.8	0	16.8	0.02%
ELECTRICITY	ACCESS TO ELECTRICITY	25.4	64.1	89.5	0.13%
	GENERATION AND TRANSMISSION (BASE SCENARIO)	371.5	116.1	487.5	0.69%
TELECOMMUNICATIONS	FIXED BROADBAND	44.1	38.2	82.3	0.11%
	4G	65.3	146.1	211.4	0.30%
TRANSPORTATION	ROADS	310.7	427.8	738.5	1.04%
	AIRPORTS	15.2	0	15.2	0.02%
	URBAN MASS TRANSIT (BRT SCENARIO)	222.4	0	222.4	0.31%
	TOTAL	1,310.5	910.2	2,220.7	3.12%

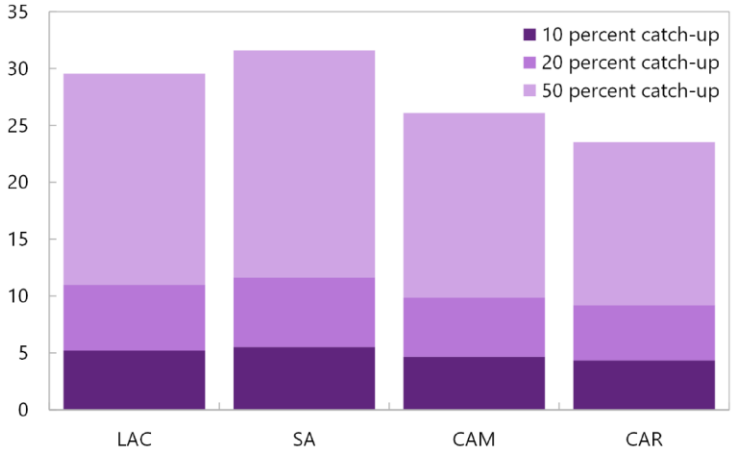
Source: IDB, Infrastructure gap in LAC (2021)

Current Status of Infrastructure Investment in the LAC Region

Estimated gains from trade by closing infrastructure gap

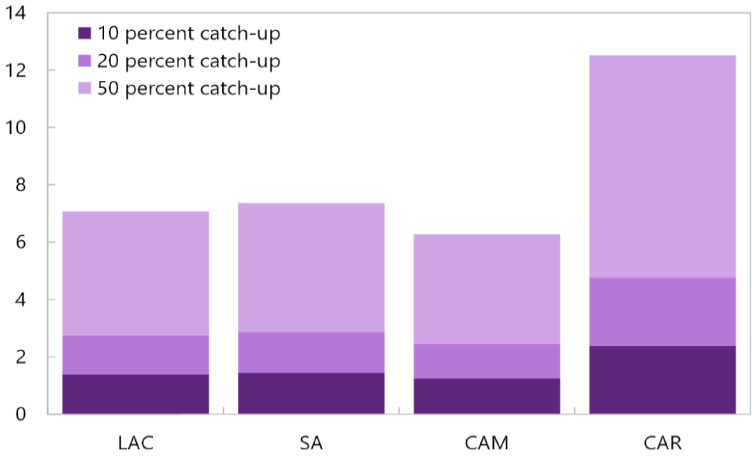
Increase in Exports

(Percent increase in exports relative to baseline)



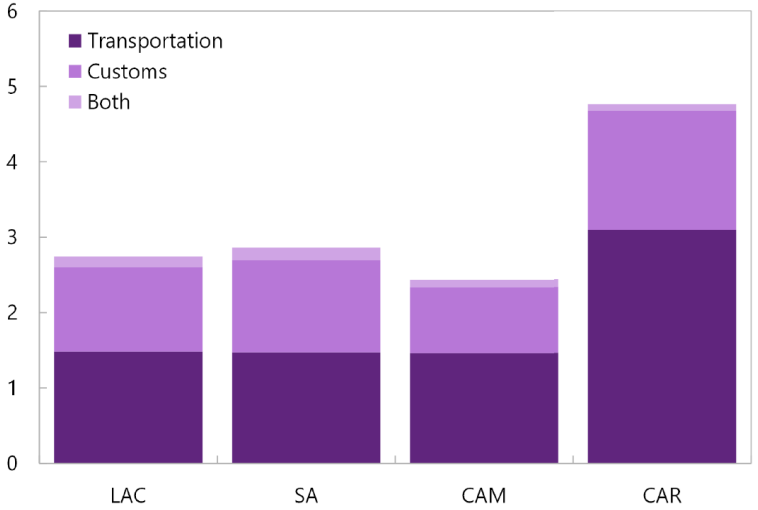
Increase in Output

(Percent increase in output relative to baseline)



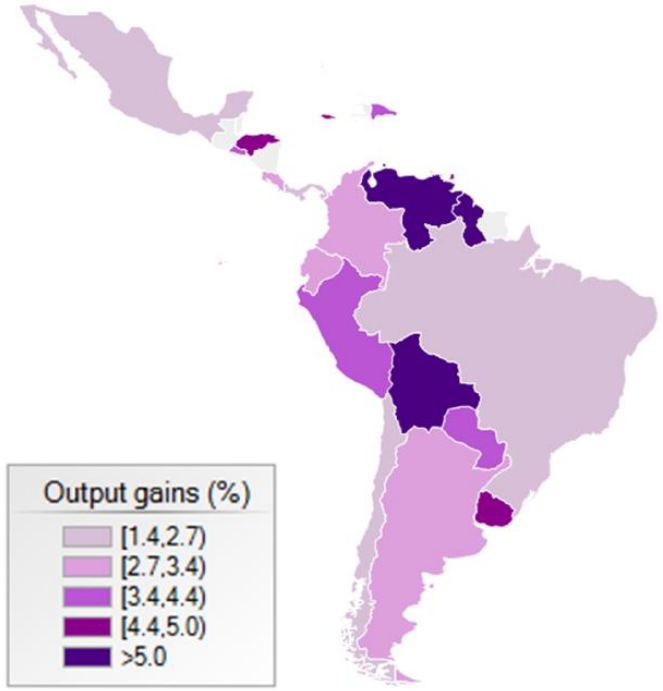
Contributions of Transportation and Customs

(Percent increase in output relative to baseline; 20 percent catch-up scenario)



Output Gains from Closing LAC's Infrastructure Gap by 20 Percent

(Percent change in output relative to baseline scenario)



Note: CA = Central America including Mexico; CAR = Caribbean; SA = South America
Source: IMF Working Paper (2024)

Current Status of Infrastructure Investment in the LAC Region

Closing infrastructure gap is one of main challenges for a sustained growth of LAC countries.

- Evolution of investment observed, yet with a large divergence between groups
  - Need to catch up for medium- and small-range investment countries
- According to IDB estimation, a total volume of 2.2 trillion USD is required to close the infrastructure gap by 2030.
  - This amount covers both economic infrastructure and investment for sustainability.
- Providing adequate level of infrastructure could substantially improve the growth potential of LAC countries, for example by trade flows.
  - Infrastructure investment is estimated to have increasing impact on output, having especially beneficial for low-base countries (e.g. CAR).
  - **Importance of adequate governance of PIM (public investment management) !!**

Korean PIM Experiences: The Case of PFS

- Preliminary Feasibility Study (PFS) is a short and brief *ex-ante* evaluation of a project to produce information for budgetary decision.
- Budget ministry delegates project assessment to independent institutions in order to guarantee objectivity of the evaluation process.

❶ Governance

- Owned by MOEF
- Managed by designated institutions (KDI, KIPF)

❷ Meaning of "Preliminary"

- short and brief (about 9-12 months)
- Preceding a (detailed) feasibility study by line ministries

❸ Legal basis

- National Finance Act
- Enforcement Decree of the NF Act

Korean PIM Experiences: The Case of PFS

- All new large-scale infra projects meeting the following criteria are subject to PFS:
  - ① total project cost exceeds KRW 50 billion (about USD 36 million in current rate)
  - ② central government subsidy exceeds KRW 30 billion
    - Local government and PPP(Public-Private Partnership) projects are also subject to PFS, if central government subsidy exceed KRW 30 billion.
- However, in line with the National Finance Act, projects with limited benefits from PFS may be exempted.

1. **Public building projects**
   (e.g.) Government offices, correctional facilities, elementary or secondary educational facilities
2. **Legally required facilities**
   (e.g.) Sewage and waste treatment facility
3. **Rehabilitation projects and restoration from natural disasters**
   (e.g.) Urban flood prevention project
4. **Military facilities and projects related to national security or national defense**
5. **Other types that are stipulated by the Act**

Korean PIM Experiences：The Case of PFS

- Having targeted economic infrastructure initially, the PFS has broadened to social infrastructure and non-infrastructure areas (e.g. cultural facilities, welfare services).
- Eligible project types include roads, railways, ports, cultural and tourism facilities, buildings, water resources, and others.

Daejeon Metro Line 3 Project

Siheung Baegot SNU Hospital Construction Project

Janghang national wetland restoration project

Korean PIM Experiences: The Case of PFS

Overview of a PFS Report

Project proposal

Background study

- Review of statement of purpose
- Collect socio-economic, geographic, and technical data
- Brainstorming (Other Alternatives)
- PFS issues raised

Economic analysis

- Cost estimation
- Demand forecasting
- Benefit estimation
- Cost-benefit analysis

Policy analysis

- Project implementation conditions (internal, external)
- Policy effects (Project specific items, job creation, residential conditions, environment impacts, safety assessment (optional)
- Additional evaluation items (optional)

Balanced regional development analysis

- Regional backwardness index
- Balanced regional development impacts (effects of improving regional development, regional economic impacts)

Comprehensive Evaluation(AHP)

- Overall feasibility(whether to proceed the project or not)
- Policy recommendations

Korean PIM Experiences: The Case of PFS

Economic Analysis

- Conduct cost-benefit analysis to determine the economic feasibility of an individual project by comparing the socio-economic benefits with the accompanying costs

Policy Analysis

- Evaluate social benefits or risks resulting from projects that cannot be quantified by the cost-benefit analysis, but should still be considered in the project decision-making process

Balanced Regional Development Analysis

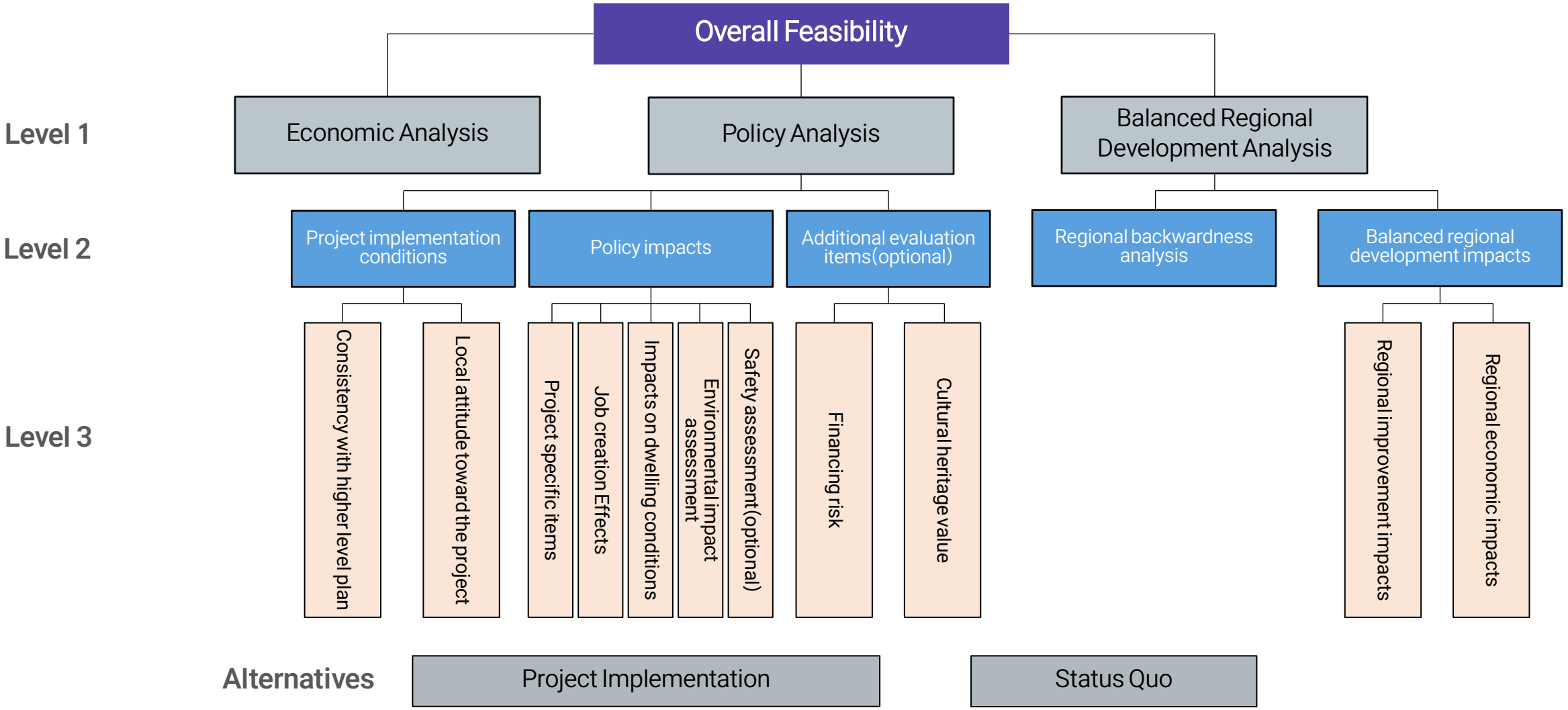
- Additional scores are given to the projects in less developed regions and projects with significant ripple effects for such regions, in pursuit of balanced regional development

Analytic Hierarchy Process (AHP)

- Combine both quantitative and qualitative elements of evaluation to suggest the overall feasibility of the project in single numbers, as a multi-criteria decision-making technique

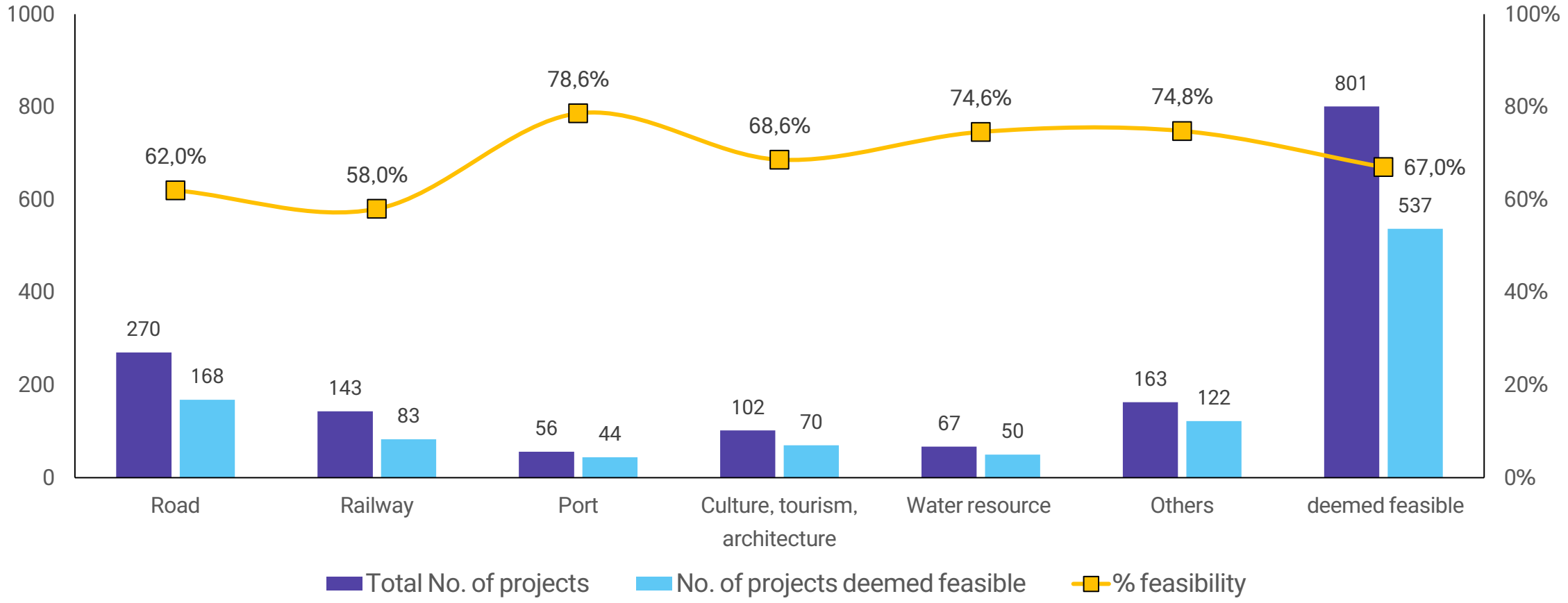
Korean PIM Experiences: The Case of PFS

Overall Evaluation through AHP



Korean PIM Experiences: The Case of PFS

Proportion of projects deemed feasible by sector (1999~2023)



Source: KDI, 2023 PIMAC Annual Report (2024)

PFS and the Role of KDI PIMAC

- KDI is a government-funded yet independent policy research institute.
  - As a statutory body within KDI, PIMAC is in charge of comprehensive and systematic *ex-ante* feasibility studies of both large traditional public investment and PPP projects.

Gatekeeper

Ensuring value for taxpayers by supporting the identification of feasible projects

Researcher

Conducting policy research and publish guidelines for PFS and PPP

KDI PIMAC

Independent Evaluator

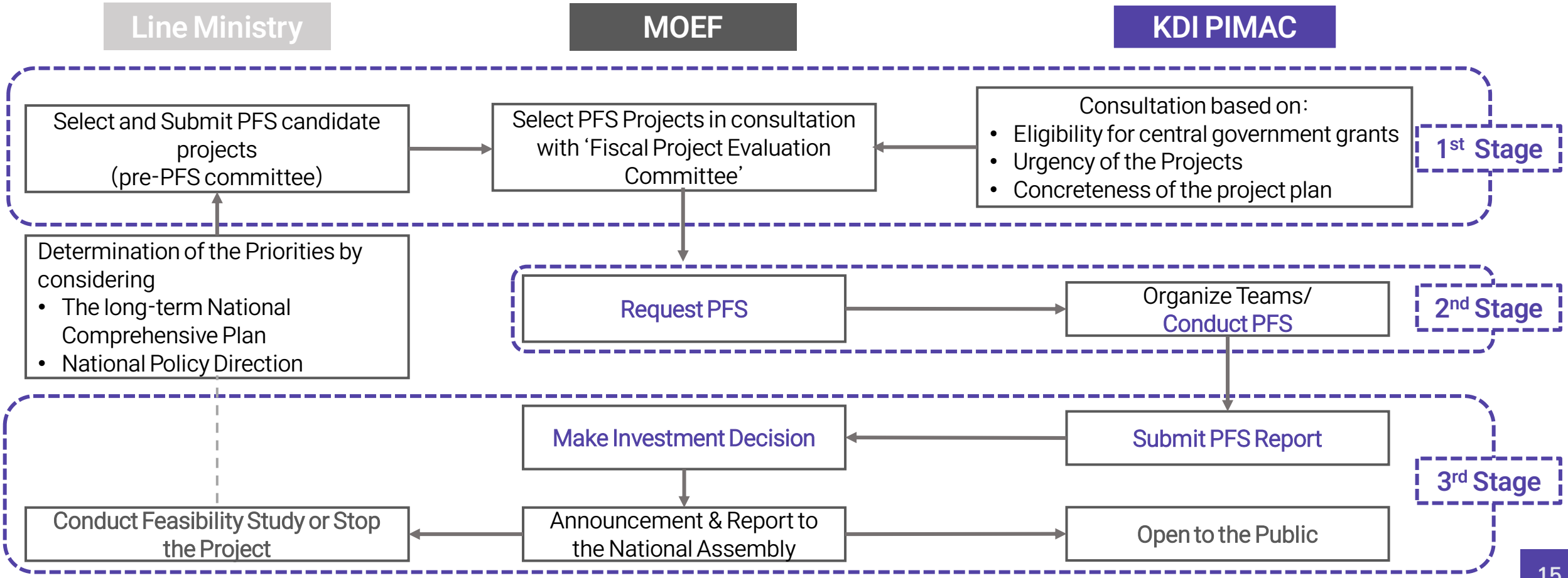
Facilitating informed decision-making through objective and transparent project appraisal

Policy Service Provider

Providing policy and technical support to the national & local level PIM

PFS and the Role of KDI PIMAC

- Three stages: Before PFS (1st stage), PFS (2nd stage), After PFS (3rd stage)
  - PFS (2nd stage): Upon request from MOEF, KDI PIMAC initiates the PFS process by forming a PFS team with in-house members and external advisors to conduct PFS.



Key Implications from the Korean Experience

- Adequate project appraisal and management system is critical to achieve fiscal soundness and expenditure efficiency.

Fiscal efficiency	• PFS has contributed to enhancing fiscal efficiency by preventing non-feasible projects from getting launched. • PFS has promoted the importance of a sound project plan and an adequate ex-ante evaluation in the PIM system.
Informed-decision making	• PFS helps reduce information asymmetry between the budget ministry and line ministries, making a better-informed decision-making possible. • Beyond a simple feasibility judgement, PFS reports provide essential information and policy recommendations for an effective project implementation.
Objectivity and independence	• Delegating PFS to independent institutions such as KDI PIMAC has been one of the key factors that have ensured objective project appraisal.

Thank you