How ADB Builds Long-Term Knowledge and Capacity in Developing Member Countries through Expert Deployment

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INTRODUCTION

Countries globally are embracing digitalization to enhance efficient and customized service delivery through process innovations. Developing members countries (DMCs) of the Asian Development Bank (ADB) are keen to upskill their staff from public sector agencies but find short workshops and theoretical training courses insufficient. This is where ICT experts enable peer learning and on-the-job knowledge transfers.

The Republic of Korea is recognized globally for its digital transformation success and strong digital technology ecosystem. In 2018, the Government of the Republic of Korea and ADB initiated the Knowledge Immersion Program to harness the potential of on-the-job knowledge transfer and accelerate ICT deployment.1 Developed countries

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1 In 2018, the Republic of Korea and ADB signed a cooperation agreement on Korea-Asia and Pacific Tech Corp, branded in ADB as Knowledge Immersion Program, to build human capital and institutional capacity in Asia and the Pacific through the use of ICT.
ADB Innovation Hub

ADB has been promoting innovation across its developing member countries (DMCs) while enhancing its own innovation capabilities through a central, physical, and virtual hub called the ADB Innovation Hub. This hub functions as a strategic and systematic enabler of innovation practice to help ADB meet the demands of its DMCs. The hub’s goal is to create a culture of innovation at ADB and design innovation projects with DMCs through four services lines: (i) **Applied Learning and Capacity Building** to improve staff capacity on innovative tools and techniques; (ii) **Partnerships and Networks** to introduce innovative skills and experience through collaboration with external and internal partners; (iii) **Innovation Management** to enhance ADB’s processes, culture, and systems to support staff in innovation; and (iv) **Applied Innovation** to design and implement innovative projects in DMCs. The Knowledge Immersion Program is one of the flagship offerings under the hub’s Applied Innovation service line.

In Asia and the Pacific, countries have access to cutting-edge knowledge and innovations. Transferring this knowledge to developing countries can help bridge ICT knowledge and skills gaps.

Officially launched in 2020, the Knowledge Immersion Program deploys young ICT experts for up to 12 months in government agencies with ICT knowledge and skills needs, and with whom ADB has ongoing collaboration. The Knowledge Immersion Program acknowledges that sustaining change is difficult without extended periods of face-to-face engagement and peer-to-peer learning. The program offers government agencies the opportunity to work closely with experts and learn by example, which results in enhanced knowledge absorption and retention.

The ADB Innovation Hub is implementing the Knowledge Immersion Program with funding provided by the Republic of Korea e-Asia and Knowledge Partnership Fund.

**SUPPORTING INNOVATION THROUGH KNOWLEDGE IMMERSION**

The Knowledge Immersion Program is an innovative approach to transfer knowledge and ensure impact. The on-the-job, face-to-face engagement and peer-to-peer learning it offers enable customization of knowledge and seamless integration of ICT skills into the business processes of public sector agencies.

To address the digital capacity gaps in DMCs, resident missions of ADB regional departments work with public sector agencies, referred to as the knowledge hosts, to define the roles and responsibilities of ICT experts. The ADB Innovation Hub reviews these roles and responsibilities, agrees on deliverables, and deploys experts after a shortlisting and interview process. The expert deployment includes four key milestones: familiarization, design, prototyping, and finalization that includes capacity building.

The Knowledge Immersion Program provides the foundation for innovation by (i) fostering deep understanding and **familiarization** of public sector agencies’ existing ICT challenges, gaps, and opportunities to improve service delivery; (ii) enhancing creative problem solving through collaborations between deployed experts and public sector agencies’ staff to **design** innovative solutions; (iii) facilitating iterative development and **prototyping** of solutions that are informed by continuous learning and improvement leading to **finalization** of a customized solution; and (iv) enhancing expertise in ICT skills through targeted training programs. This integrated and more systematic solution to help bridge ICT knowledge and skills gaps in DMCs offer unique advantages over regular consulting work. Unlike regular consulting, the program provides a comprehensive, long-term, cost-effective, and collaborative approach to knowledge development and innovation within public sector agencies. It empowers public sector agencies’ staff to advocate and innovate continuously for better service delivery.

**PREPARATION**

The Knowledge Immersion Program enables experts to apply their skills in DMCs and foster cultural exchange and exposure. However, it can be challenging to get acclimated into a new environment, overcome language barriers, and understand the nuances of government agencies’ organizational culture. To reduce the onboarding time of new Knowledge Immersion Program experts, the ADB Innovation Hub developed onboarding tools and reference materials, including detailed tool kits and guidelines for monitoring and evaluation.

**THE FIRST THREE YEARS**

Launched just before the coronavirus disease (COVID-19) pandemic, the program faced interruptions but also underscored the pressing need for ICT expertise. As government agencies around the region suddenly grappled with an explosive demand for online learning, management, and communication platforms, the pandemic underscored the huge need for the kind of ICT expertise that the program should provide.

Since 2020, the program has deployed six experts across Cambodia, Pakistan, the Philippines, and Viet Nam, supporting five ADB projects in education, climate change, tourism, and water supply.

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2 Knowledge hosts are from the government departments or ministries that need additional knowledge and skills on ICT.
Cambodia Ministry of Public Works and Transport
Cambodia has made great strides in addressing its water supply problems, but by 2019, almost 34% of households in the country lacked access to clean drinking water within their homes. This situation was even more acute in rural areas, where only 58% of the population has access to safe water and less than 25% have toilets connected to sewerage. The country continues to invest in water purification and supply systems with the assistance of major institutions, including ADB that supported the Ministry of Public Works and Transport’s project on urban services.

In March 2021, the Knowledge Immersion Program supported ongoing work in customizing a digital billing system to improve the efficiency and sustainability of water services under ADB’s Fourth Greater Mekong Subregion Corridor Towns Development Project. An ICT specialist was deployed virtually to (i) assess the existing information technology systems applied in the financial management and business process configuration of the provincial and city governments in the 13 cities covered by the project and (ii) to provide recommendations for enterprise solution for billing and financial management.

Philippines Department of Education
In June 2021, the program deployed an information management system developer to the National Educators Academy of the Philippines (NEAP), an attached agency of the Philippines Department of Education that designs and delivers professional development for about 800,000 teachers, school leaders, and other related personnel across the country.

The COVID-19 pandemic highlighted the importance of online learning. It has forced educational institutions like NEAP to think digitally. The development of its Professional Development System, which started in 2018, needed to be fast-tracked, specifically the Professional Development Learning Management System (PDLMS) module. With only 78 staff servicing about 800,000 teachers across the country, NEAP was in dire need of support. The Knowledge Immersion Program responded by deploying an ICT specialist/developer to support NEAP.

The developer worked with NEAP in designing and programming the PDLMS. The system’s basic features are dashboard, video conferencing, assessment, and instant messaging. In designing the system, the expert had to quickly come to grips with the diverse situations in which the users were working. While many users were in urban areas, there were also a lot of teachers in provinces with poor internet connectivity, as well as teachers with varying levels of computer literacy. Based on these, the developer customized PDLMS and continued to enhance the system based on feedback from user acceptance tests. The developer delivered presentations on PDLMS to familiarize users on the features of the system. The deployment complemented ADB’s results-based loan to the Philippines for the Secondary Education Support Program.

Teach for the Philippines
The Knowledge Immersion Program was also extended to NGOs. Two experts were deployed to provide guidance and support in establishing a data system to improve project monitoring and evaluation for Teach for the Philippines (TFP), a nongovernment organization (NGO) that works to provide all Filipino children with access to inclusive, relevant, and excellent education. The challenges facing the organization are common in the nonprofit sector—slow internet speed and low accessibility because of regional differences in the level of ICT infrastructure, suboptimal data systems architecture, and low digital literacy. Like many NGOs, TFP needed additional resources to hire in-house ICT experts to tackle these challenges.

To increase the reliability and accessibility of the data within the system, TFP requested Knowledge Immersion Program experts to help them adopt an enterprise resource planning solution. A developer and systems and data analyst worked remotely in centralizing and simplifying the agency’s data repositories and trackers that were independently processed by individual repositories and in integrating them into a single system. They conducted consultations with relevant stakeholders and scoping of technical requirements through process and systems analysis. Based on these, the experts worked with the TFP team in an iterative development of an end-to-end data management tool that aims to improve the organization’s efficiency and data governance. The program complemented ADB’s regional technical assistance for Strengthening Human Resources and Leadership in Education.

Pakistan Ministry of Climate Change
In Pakistan, climate change and climate finance data are organized by state; however, the national government lacks a centralized climate change finance monitoring system. Decentralized data management poses challenges in obtaining an overview of the country’s funding that goes into climate change actions.

In view of ADB’s commitment to support DMCs’ climate actions and the Climate Change Financing Framework, the ADB Pakistan Resident Mission led the development of the Country Climate Investment Tracker (CCIT) dashboard with support from the Knowledge Immersion Program. CCIT is a national dashboard that helps track climate change investments and consolidate climate change information.

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4 ADB. 2018. Report and Recommendation of the President to the Board of Directors: Proposed Loan and Grant, and Administration of Grant to the Kingdom of Cambodia for the Fourth Greater Mekong Subregion Corridor Towns Development Project. Manila.
6 ADB. Technical Assistance for Strengthening Human Resources and Leadership for Education.
A dashboard with four basic modules of CCIT was developed: (i) climate change knowledge management, (ii) climate change one library, (iii) climate change adaptation and mitigation finance tracking, and (iv) reporting. The Knowledge Immersion Program expert worked with the Ministry of Climate Change and the Pakistan Resident Mission in reviewing the existing systems at the provincial level and in designing the CCIT dashboard based on the business needs of the Ministry of Climate Change. This effort not only facilitates data management and visualization but also serves as a crucial aid to decision-making. The support package included training for central and provincial level officers on how to use the dashboard, empowering them to access, use, and update data. The program complemented ADB’s work in Pakistan under the Punjab Intermediate Cities Improvement Investment Project.7

**Hoa Binh Province, Viet Nam**

Located in the northwest region of the country, Hoa Binh Province boasts of a rich natural and cultural heritage making it a prominent tourist destination near the capital Hanoi, with significant development potential. Hence, the Government of Viet Nam has given the tourism sector a high priority to increase turnover, competitiveness, and profitability. With support from the ADB Viet Nam Resident Mission under the Hoa Binh Tourism Infrastructure Development Project,8 the government is planning to advance digital transformation in the tourism sector, particularly for micro, small, and medium-sized enterprises (MSMEs), alongside key physical infrastructure investments.

The Knowledge Immersion Program deployed experts to evaluate the status of smart tourism development; assess the digitalization needs and capabilities of the Provincial Department of Culture, Sports, and Tourism (DCST) and MSMEs; and identify sustainable and viable digital solutions to bolster the tourism industry. Consultations with DCST officials confirmed the need for a brand strategy and digital marketing and communications strategy to attract quality tourism investments in the province. Moreover, it was found that weak digital knowledge and skills, specifically those related to digital destination marketing and branding, were the biggest barrier to fostering smart tourism. The Knowledge Immersion Program expert engagement has generated several recommendations that will feed into the design of a technical assistance project and the larger investment project. The support package included training for DCST and MSMEs on digital content and marketing, which has already shown a significant impact on participants’ businesses, attracted additional customers, and improved revenues.

### LESSONS LEARNED

**Embedding experts enhances ADB’s role as an innovation solutions provider.** ADB has consistently served as a valued source of applied expertise and knowledge for its DMCs. However, as these countries confront increasingly complex development challenges, their knowledge needs have evolved. In line with the goal of the ADB Innovation Hub and guided by its Knowledge Management Action Plan 2021–2025, ADB is committed to delivering innovative solutions that closely align with DMCs’ needs. The embedding of carefully selected experts plays a pivotal role in gaining a holistic understanding of the development challenges faced by agencies in DMCs and facilitates the design of tailored solutions while transferring knowledge on the job. The program not only reinforces ADB’s reputation as a trusted knowledge provider but also establishes an additional avenue for comprehending the knowledge needs of DMCs.

**There is no digital substitute for working face-to-face.** While virtual support is often considered as an efficient measure to overcome geographical and cultural barriers, the Knowledge Immersion Program reiterates that there is no better substitute for face-to-face human interaction to effectively transfer knowledge. Digital tools facilitate remote teamwork, but experts have stressed the importance of being on-site, working side-by-side with their peers. This approach was fulfilling to experts and was essential for strengthening capacity and sustaining the impact of peer learning.

**It takes time to understand a new country.** Participation in deployments under the Knowledge Immersion Program attracts individuals with a strong appetite for the unfamiliar and a belief in the value of cross-cultural knowledge exchange. However, even with this positive predisposition, acclimating oneself to a new team, understanding their work dynamics, and navigating the language barriers require time. According to program alumni, dedicating a period solely for familiarization before diving into the technical and knowledge sharing activities is a worthwhile investment.

**Keep expectations realistic.** Despite preparations for the deployment of ICT experts, the challenges faced on the ground have consistently disrupted the best-laid plans. Whether attributable to delays related to the COVID-19 pandemic, changes in personnel within the host team, or tasks extending beyond anticipated timelines, projects of this nature must balance between what is ambitious and what is realistic. It is crucial to maintain realistic and well-defined project scopes, while also recognizing and dealing with unforeseen externalities, emerging opportunities, and potential delays.

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7 ADB. Punjab Intermediate Cities Improvement Investment Project.
8 ADB. Hoa Binh Province Tourism Infrastructure Development Project.
WHAT’S NEXT

The Knowledge Immersion Program has entered phase 2, guided by the insights gleaned from the initial deployment and the shared experiences of the knowledge hosts and ICT experts. This phase will see ongoing refinement, carried out collaboratively with the Government of the Republic of Korea.

With renewed funding, the program may deploy experts to Armenia to conduct a digital transformation assessment, foster digital integration and knowledge transfer for FinTech solutions, and conduct training sessions to enhance digital proficiency. Experts may also be deployed to the Lao People’s Democratic Republic’s Department of International Cooperation (the Ministry of Planning and Investment) to assist with enhancements in the information and knowledge sharing system to bolster public investment planning and attract financing for promoting sustainable development.

A new and integral component of phase 2 is the offering of study tours, providing DMCs the opportunity to witness firsthand the digitalization journey of other countries and to enhance their own digitalization capacities. Additionally, an alumni network of ICT experts will be established, serving as a valuable resource for future experts, facilitating peer-to-peer learning.

CONCLUSION

The Knowledge Immersion Program serves as a conduit for transferring knowledge and skills for harnessing the potential of ICT and fostering long-term capacity in DMCs to improve service delivery. Through the Republic of Korea e-Asia and Knowledge Partnership Fund, the program will continue complementing ADB’s efforts to strengthen institutional capacity in DMCs and solidifying ADB’s role as a trusted knowledge provider across Asia and the Pacific.

About the Asian Development Bank
ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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