

Promoting Collaborative Governance through Convergence Programs in Road Infrastructure Development

ENRICO L. BASILIO

*National College of Public Administration and Governance
University of the Philippines Diliman*

RAFAEL APRIL S. RIVERA

*School of Urban and Regional Planning
University of the Philippines Diliman*

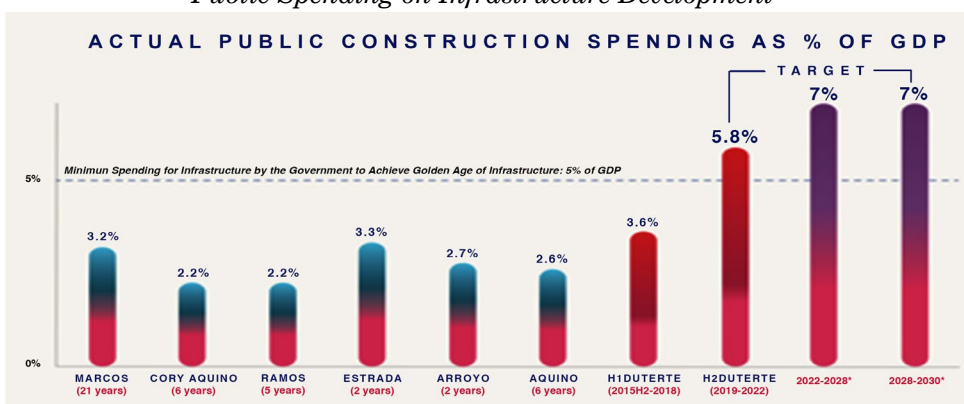
Abstract. Over the years, the Philippines has consistently ranked low in overall transport infrastructure development, as documented in the World Economic Forum annual reports. One of the contributing factors to this poor performance is the weak coordination between and among concerned national and local government agencies in infrastructure development in the country, as evidenced by failure to ensure seamless intermodal transport connectivity that promotes public convenience. Intergovernmental collaboration remains a major challenge. In 2012, building on the concept of collaborative governance, the Department of Tourism (DOT) and Department of Public Works and Highways (DPWH) embarked on a convergence program that would address the twin objectives of increasing public investments in tourism roads and enhancing seamless connectivity between the transport gateways and service centers in the tourism destination sites. This article argues that convergence is a new norm in addressing bottlenecks in road infrastructure development. It presents the major factors that contributed to the successful implementation of the DOT-DPWH Convergence Program, which also paved the way for other similar convergence programs. The article also highlighted that investments in tourism road projects have led to a substantial increase in tourist arrivals at the provincial level. The study then offers recommendations on how to further promote convergence programs as an alternative approach of collaborative governance in the Philippines.

Keywords: road infrastructure, collaborative governance, convergence, tourism, investment

Bad roads turn a tourist's dream vacation into a nightmare, and go against the country's tourism slogan—"It's More Fun in the Philippines." This situation shows the state of transport infrastructure in the Philippines. For a long time, infrastructure investment averaged only two to three percent of the gross domestic product (GDP), below the required spending for infrastructure projects of about five percent of the GDP in developing economies such as the Philippines (Asian Development Bank, 2019). However, investments in infrastructure development picked up at 3.6% in the

first half of the Duterte Administration with its Build, Build, Build Program, which promised the “golden age of infrastructure” in the country (see Figure 1). Furthermore, the infrastructure investment level was expected to dramatically increase, given that it is seen as a key post-pandemic economic recovery strategy. Infrastructure spending was projected to breach the five percent benchmark in the last half of the administration (2019-2022). With increased investments in infrastructure, the Philippines’ ranking in the World Economic Forum (WEF) Global Competitiveness Report (as cited in Schwab, 2019) improved from 113th in 2017 to 96th in 2019. Part of this improvement is due to the enhanced performance of the road sector, as reflected in a better ranking from 104th to 88th during the same period.

Figure 1
Public Spending on Infrastructure Development



Source. Philippine Statistics Authority; *estimates (as cited in Research, Education, and Institutional Development [REID] Foundation, Inc., 2019)

To a large extent, the Tourism Road Infrastructure Program (TRIP 1.0, 2012-2017), a convergence program jointly implemented by the Department of Tourism (DOT) and the Department of Public Works and Highways (DPWH), supported the improvement of road infrastructure in the country. From less than PHP1 billion budget for tourism roads in 2011, the Congress appropriated a total of PHP86 billion for the six-year program, with a target of 4,000 kilometers of roads to be constructed or upgraded to support primarily the growth of the tourism industry. Around 70% of the total number of TRIP 1.0 projects were local roads where most infrastructure gaps existed, making TRIP an effective mechanism for augmenting limited local infrastructure funds. Moreover, there was an improvement in the quality of these roads, as TRIP followed the DPWH national road quality standards. While these roads were initially meant to support and promote tourism, they also facilitated trade through the efficient and seamless transport of agricultural commodities and manufactured products. Better road infrastructure cuts travel time and costs (e.g., fuel expenses, vehicle maintenance) and improves the reliability of delivering these products to their intended customers. In turn, it expands and accelerates economic activities, benefiting the tourism areas and its environs.

Table 1
ASEAN Quality of Infrastructure Ranking, 2017 and 2019

Countries	Quality of Overall Infrastructure	Roads	Railroads	Seaports	Airports
Singapore (2019)	1	1	5	1	1
(2017)	2	2	4	2	1
Malaysia (2019)	35	19	13	19	25
(2017)	21	23	14	20	21
Thailand (2019)	71	55	75	73	48
(2017)	67	59	72	63	39
Indonesia (2019)	72	60	19	61	56
(2017)	68	64	30	72	51
Vietnam (2019)	77	103	54	83	103
(2017)	89	92	59	82	103
Cambodia (2019)	106	97	N/A	91	113
(2017)	99	99	94	81	106
Philippines (2019)	96	88	88	88	96
(2017)	113	104	91	114	124

Source. *World Economic Forum-Global Competitiveness Report* (as cited in Schwab, 2019)

Note. N/A – not assessed

In December 2016, DPWH and DOT signed a memorandum of agreement for the expanded TRIP 2.0 to further support tourism infrastructure investment under the National Tourism Development Plan 2017-2022, which was prepared and implemented by the DOT. Under TRIP 2.0 (2018-2021), the criterion on geographical coverage (i.e., 60-kilometer radius from a gateway, such as seaports and airports) was expanded to a 90-kilometer radius to accommodate more road projects to further strengthen network connection between and among tourism destinations.

TRIP is a game changer, as it offers a new norm in collaborative governance, particularly in transport infrastructure development. As illustrated in the preceding discussions, TRIP generated positive results in terms of road projects actually being funded and implemented, and demonstrated an effective working relationship between agencies, such as DOT and DPWH.

This article reviews TRIP, and similar programs that followed after it, from the perspective of collaborative governance. It highlights factors that make TRIP a successful convergence program for road infrastructure development in the Philippines. It revisits two case provinces that showcased the success of TRIP, especially in terms of enhancing access to tourism destinations. The article then offers recommendations on how convergence programs can be replicated in support of other industries and sectors, paving a new way for collaborative governance in the Philippines.

This article integrated the previous provincial TRIP case studies conducted by Mirabueno and Yujuico (2013) for Bohol, and Agabin and Travers (2017) for Palawan, and further validated the major factors that led to the success of the TRIP convergence

program. The article also added provincial-level data on road project investments and tourist arrivals to further highlight the success of the convergence program.

Overview of Philippine Road Infrastructure

Based on 2020 data from DPWH (as cited in Cabral, 2020), the Philippines' total road network (see Table 2) spans about 210,000 kilometers. However, only 31% of these roads are paved. The highest percentage of paved roads (97.18%) falls under the national road category, but they only account for 16% of the country's total road network. Other "economic roads," which collectively account for another 29% of the total road network, have lower paved road ratios: provincial (35.50%), municipal (33.02%), and city (61.69%).

Table 2
ASEAN Quality of Infrastructure Ranking, 2017 and 2019

Road Classification	Total (km)	Paved (km)	Paved (%)
National Road	33,018	32,087	97.18
Primary	7,072	7,071	99.99
Secondary	14,339	13,992	97.58
Tertiary	11,607	11,024	94.98
Local Road	177,595	33,479	18.85
Provincial	30,151	10,703	35.50
Municipal	15,349	5,375	33.02
City	15,331	9,458	61.69
Barangay	116,765	7,943	6.80
Total:	210,613	65,566	31.13

Source. World Economic Forum-Global Competitiveness Report (as cited in Schwab, 2019)

DPWH is in charge of national road construction and maintenance funded by the national budget (see Box 1)—enacted through the annual General Appropriations Act—while local government units (LGUs) take care of local road development using their limited internal revenue allotments (IRAs). Only 20% of the IRA is used for infrastructure development. For a small municipality, this amount is not enough to fund a kilometer of road based on DPWH standard cost. Clearly, most gaps can be found among local roads. Prioritizing the development of economic roads and bringing their ratios to 100% means paving some 36,000 kilometers of local roads.

Relying on the limited IRAs of LGUs will take forever to build these roads. To illustrate this point: practically the entire budget of LGUs for infrastructure development are not sufficient to construct roads of national standards, which cost PHP20 million per kilometer (Cabral, 2016). Traditionally and legally, DPWH could not fully support the upgrading and rehabilitation of these local access roads, because LGUs are responsible for developing local roads. The challenge then was to find or

formulate a legal framework that will enable national government agencies, such as DPWH, to use national funds to augment the limited funds of LGUs for local road development.

Box 1

Roads Under Regular Mandate of the DPWH

National Primary – Directly connects major cities (at least around 100,000 people); cities within metropolitan areas are not covered by the criteria.

National Secondary – Directly connects cities to national primary roads, except in metropolitan areas; directly connects major ports and ferry terminals to national primary roads; directly connects major airports to national primary roads; directly connects tourist service centers to national primary roads or other national secondary roads; directly connects cities (not included in the category of major cities); directly connects provincial within the same region; and directly connects major national government infrastructure to national primary roads or other national secondary roads.

National Tertiary – Other existing roads under DPWH that perform local function.

Source. DPWH, n.d. -a

In 2010-2011, DOT and DPWH have jointly started exploring and developing a legal framework that would allow DPWH to fund tourism roads, most of which are classified as local roads. They alluded to the Tourism Act of 2009 (Republic Act 9593), particularly Section 34,¹ which explicitly stated that a tourism infrastructure program should be established and funded by the national government. Furthermore, TRIP is anchored to the National Tourism Development Plan (NTDP) prepared by DOT. The NTDP identified strategic tourism development areas (TDAs) that required infrastructure projects, such as roads. In 2012, DOT and DPWH formalized TRIP as a convergence program for enhancing access to tourism destinations. As discussed in a later section, TRIP proved that collaborative governance could work, particularly in terms of implementing actual road projects and strengthening the working relationship between and among government agencies (instead of the usual “siloes” operations).

Review of Related Literature

Collaborative governance has become an increasingly significant concept in public administration and governance. Tang and Mazmanian (2014) described collaborative governance in terms of different organizations working together and sharing resources to address public policy problems. Similarly, Kozuch and Sienkiewicz-Malyjurek (2016) argued that collaborative governance is an interorganizational effort manifested through two or more agencies working together, rather than separately, to achieve a common goal or objective, such as to increase public value. Doherty (2015), on the other hand, offered that collaborative governance is a result of repeated interactions of individuals trying to solve problems they cannot solve on their own (p. 1).

As a starting point, it is important for collaborative governance to manifest its benefits to participating agencies. Furthermore, there are common factors that need to be in place to facilitate the process of collaborative governance. These factors

include the external environments, characteristics of agencies involved, and traits of people within those agencies, to name a few (Kozuch & Sienkiewicz-Malyjurek, 2016). Doherty (2015), on the other hand, found that collaboration, as applied to Oregon's watershed councils, gained from the way agencies interact. If avenues for collaboration are objective and welcome ideas from participating individuals or agencies, it will likely generate positive results.

Ansell and Gash (2011, as cited in Muñoz, n.d.) echoed the three studies previously discussed. They argued that collaborative governance brings together different actors—public and private—to participate in the decision-making process (formal, consensus-oriented, or deliberative) to effectively deliver public goods and services. These authors cited six major requirements for collaborative governance:

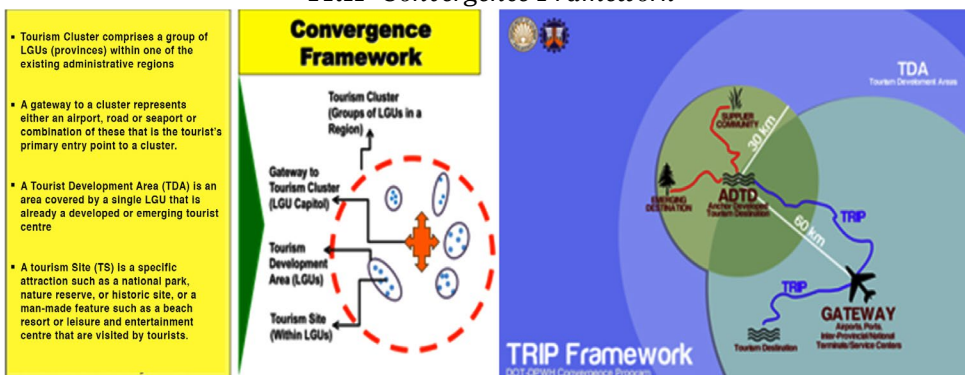
1. The forum is initiated by public agencies or institutions
2. Participants in the forum include non-state actors
3. Participants engage directly in decision-making and are not merely consulted by public agencies
4. The forum is formally organized and meets collectively
5. The forum aims to make decisions by consensus (even if consensus is not achieved in practice) and
6. The focus of collaboration is public policy or public management (Ansell & Gash, 2011, as cited in Muñoz, n.d., p. 7).

The Convergence Framework

The DOT-DPWH Convergence Program embraces the inclusive tourism destination framework embedded in the NTDP (Figure 2). Under this framework, a tourism road should connect a gateway (either one of the following): (a) airport, (b) seaport, or (c) inter-provincial/national terminals/service centers) to TDAs comprised of different tourism destinations. Initially, TRIP requires that the road projects leading to tourist destinations should be within a 60-kilometer radius of the gateway. Eventually, this requirement was further relaxed to 90 kilometers to accommodate more tourism road projects.

Figure 2

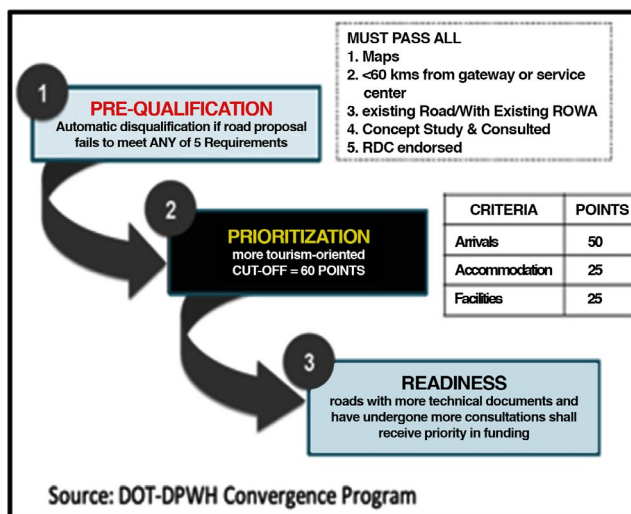
TRIP Convergence Framework



Source. DOT and DPWH (2020)

TRIP projects are funded by the national government, and, as such, it follows the usual steps of the infrastructure budget cycle of DPWH: planning, budgeting, implementation, and monitoring and evaluation (M&E). For the planning stage, however, TRIP utilized a separate and unique tool known as the Tourism Road Infrastructure Project Prioritization Criteria (TRIPPC) in the identification and prioritization of projects to be included for the annual DPWH budget (see Figure 3).

Figure 3
TRIPPC Framework



Source. DOT and DPWH (2020)

The TRIPPC is a three-stage prioritization process similar to the standard multi-criteria analysis (MCA)² used by DPWH for its regular infrastructure projects, but it gives greater emphasis on three tourism indicators: tourism arrivals, accommodations, and facilities. The tourism road project proposed for funding must meet all pre-qualification requirements (Stage 1) for further consideration in the next stage. Then, it will undergo a prioritization scoring using the three tourism indicators as criteria for scoring (Stage 2). Only proposed road projects with a score of at least 60 points in Stage 2 will proceed to the next stage. Finally, proposed road projects with more supporting technical documents, and those that underwent consultations, will receive higher priority for annual funding under TRIP (Stage 3).

On the other hand, DPWH (regional or district engineering office, depending on the project cost) implements TRIP projects, according to national road standards. Finally, both DOT and DPWH jointly undertake the M&E of TRIP projects, with DPWH focusing on the monitoring aspect through its Bureau of Construction-Project Monitoring Division (BOC-PMD), while DOT focuses on the evaluation, especially on the subsequent tourism impacts of TRIP projects.

From “Bad Trip” to Good TRIP

The TRIP paved the way for the unprecedented allocation of funds for tourism road projects, many of which are local roads. From 2012 to 2021, a total of PHP172.7 billion were used in the construction of 8,635 kilometers of road projects under the TRIP 1.0 and TRIP 2.0 convergence programs (Table 3). The convergence between DOT and DPWH through TRIP has been institutionalized, such that the program, which was started by the Aquino administration, was continued and expanded by the Duterte government (Figure 4).

Table 3
Annual TRIP Budgets (1.0 and 2.0)

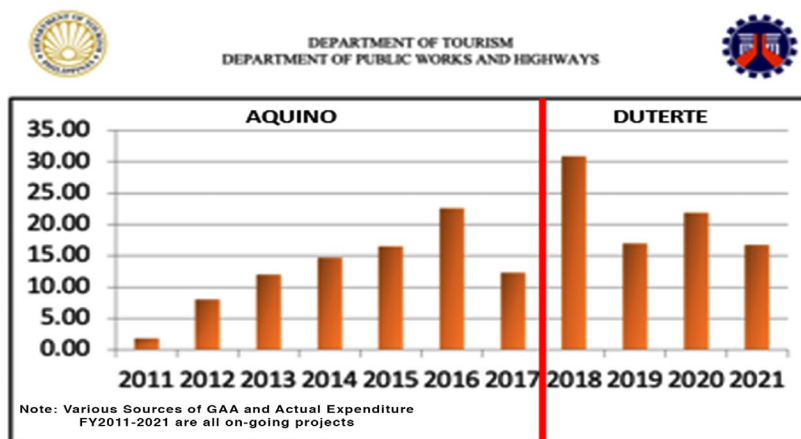
Year	Amount (in Million Pesos)	Length (in kms)
2012	8,020	401
2013	11,950	598
2014	14,732	737
2015	16,490	824
2016	22,582	1,129
2017	12,280	614
2018	30,909	1,545
2019	16,932	847
2020	21,865	1,093
2021	16,932*	847
Total	172,691	8,635

Source. DOT and DPWH (2020)

Note. *Approved budget for 2021.

TRIP has become a key driver of inclusive growth and economic development in tourism destinations across the Philippines. Likewise, it promotes safe and efficient access to and from tourist destinations from gateways and service centers. TRIP has also resulted in shorter travel time from the gateway to tourism destinations. This allows tourists to spend more time in the tourism destination itself than sightseeing on the road, making it a more rewarding trip. TRIP has also benefited tourism-related industries and facilities, such as accommodation, travel and tours, and restaurants, due to the increasing number of tourists (Cabral 2016; Agabin & Travers, 2017).

Figure 4
TRIP Budgets under the Aquino and Duterte Administrations



Source. DOT and DPWH (2020)

Note. The red demarcation line was placed between 2017 and 2018, since the 2017 General Appropriations Act was prepared and approved under the Aquino Administration.

TRIP also led to a higher level of investments in road infrastructure. Based on the calculations of Agabin and Travers (2017), TRIP contributed PHP22.6 billion worth of road projects in 2016, a whopping 300% increase from a meager PHP75 million in 2010,³ with 70% of these projects (in terms of kilometers) being local roads.

TRIP has also made the road infrastructure process in the Philippines more objective through TRIPPC. Instead of a piecemeal, non-targeted, and uncoordinated approach, TRIPPC allows for an objective, technical, and systematic road project prioritization and implementation that also promotes interagency collaboration and replicability for other programs and with other agencies (Agabin & Travers, 2017).

Aside from the tourism and other socioeconomic benefits of TRIP, another significant milestone of this program is the institutionalization of collaboration between DOT and DPWH, especially among its personnel. As Basilio (2013) shared in his message during the Convergence Program Development Conference,

Our yardstick for success is quite different. We believe that the program is working when we hear district engineers casually talk of tourist arrivals, tourism gateways, and destinations; or tourism field officers speak of thickness of road, asphalt overlay and multi-year funding. I believe that this is the true partnership that the Program espouses: when people in government work together for a common goal, even if they belong to different agencies and departments. (p. 1)

Furthermore, in one of the meetings with the TRIP Project Team, the DPWH Secretary admitted that some political allies of the President have complained that DPWH has turned “politically color-blind” because it made the TRIP prioritization and criteria apolitical. This statement further attested to the objectivity of the TRIP criteria and process.

The success of TRIP has also been documented at the provincial level. Mirabueno and Yujuico (2014) presented the positive impacts of TRIP on the tourism development of Bohol, a prime destination in the Philippines that has limited high-quality road infrastructure. TRIP facilitated access to and within Bohol tourism destinations through the implementation of 16 tourism road projects when this study was prepared. TRIP connects different major attractions in Bohol, which facilitate the movement of tourists from one destination to another, allowing travel and tour companies to offer new and additional tour packages, and contributed to the development of other tourism facilities. The study illustrated how TRIP benefited tourism development in the province of Bohol.

Since local roads were sparse outside Tagbilaran and a cluster of medium-sized cities to the northeast, TRIPPC focused on improving links to attractions in the interior of Bohol Island, aside from the Chocolate Hills, including the Philippine Tarsier Sanctuary in Corella, Busay Falls along the Loboc River and Sagbayan Peak. By improving roads throughout the province, the intention is to promote hub-and-spoke travel centering on Tagbilaran to assorted points of interest. In so doing, Bohol is made attractive to domestic and international tourists of different persuasions using similar infrastructure—beach/dive, coves/marine reserves, cultural/historic, mangroves/wildlife and so forth. This way, viable destinations identified by Bohol's interagency technical working group are integrated into the nationwide campaign for the accessibility of disparate locations from urban centers. (Mirabueno & Yujuico, 2014, p. 313)

On the other hand, Agabin and Travers (2017) documented the TRIP success story in the province of Palawan, which ranked 4th in terms of tourism importance in the Philippines, and is home to four TDAs: San Vicente-El Nido-Taytay; Puerto Princesa; Southern Palawan; and Busuanga-Coron-Culion (Calamian Islands). Similar to Bohol, TRIP enhances road access to tourism destinations in the province of Palawan. It has also reduced the costs of imports and increased labor supply in the province. Furthermore, the study estimated that TRIP in Palawan has contributed to tourism and other economic impacts, such as:

- an increase of 109,000 tourism arrivals
- an increase of 171,500 accommodation rooms
- generation of over 700 additional jobs and
- an increase of over 280 new businesses (Agabin & Travers, 2017, p. 37).

Furthermore, Agabin and Travers (2017) conducted a perception survey among Palawan stakeholders to validate the initial results of their study. The perception survey also revealed positive impacts of TRIP in the province: increased employment in the transport sector, supported growth in tourism-related sectors, increased government investment in Palawan infrastructure, contributed to delivering some aspects of the NTDP, increased business sector willingness to invest in Palawan, and increased values of land proximate to TRIP projects. Other socioeconomic and environmental impacts of TRIP in Palawan are summarized in Table 4.

Table 4
Socioeconomic and Environmental Impacts of TRIP in Palawan

Category	Impact
Socioeconomic	<ul style="list-style-type: none"> • open greater opportunities to many rural communities by being closer to the national road network and tourism destinations • facilitate improved access to local vegetable and fish markets for tourism industry buyers and local people • contributed to increased visitor satisfaction with road conditions in Palawan
Environment	<ul style="list-style-type: none"> • improve tourist and local access to the beauties of nature and fine views in Palawan • contribute to a better appreciation of nature • contribute to potential improvement of waste disposal systems through easier access to designated landfill sites

Note. Adapted from Agabin and Travers (2017).

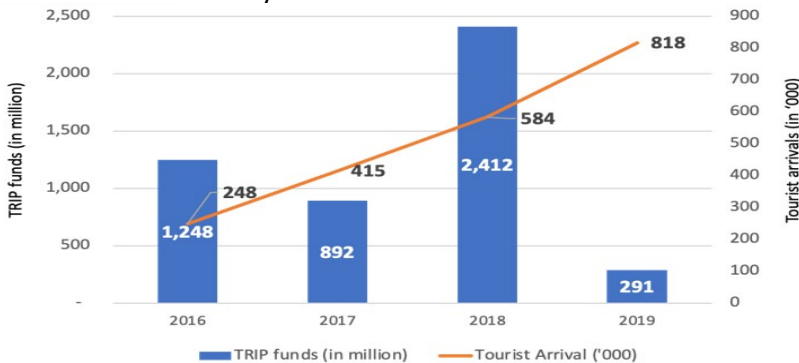
Another major factor that contributed to TRIP's success is the presence of a third-party civil society organization (CSO) that serves as a technical secretariat for the program. This third party is the Research, Education, and Institutional Development (REID) Foundation⁴, which has been present even at the early stages of conceptualizing the convergence program. The REID Foundation has provided ample technical and secretariat support to both DOT and DPWH and its regional offices in implementing TRIP. Even the study of Agabin and Travers (2017) acknowledged the valuable contribution of REID Foundation to TRIP in terms of providing the technical and coordination work needed to facilitate the collaboration between DOT and DPWH. Under the USAID COMPETE Project⁵, REID Foundation also tapped the services of senior technical and policy advisors, who greatly helped update TRIPPC and ensure that the right tourism road projects were funded and implemented.

In the end, an effective collaboration program, as shown by TRIP, propelled by the factors mentioned above, can lead to positive and innovative results. For TRIP, three factors are worth highlighting. First, national agencies, such as DPWH, can fund and implement local roads that have economic significance and support national priorities. This setup addresses the funding and quality issues that have been hounding local road development in the country. Second, TRIPPC showed that an objective process with well-defined criteria can govern the process of funding and implementing road projects in the Philippines. Finally, TRIP benefited from the collaboration of the two agencies, and the presence of a third-party organization facilitated the collaborative efforts of these two agencies.

TRIP immediately impacted tourism growth, as indicated by the substantial increase in tourist arrivals at the provincial level. Reviewing the tourist arrival data from 2016 to 2019 (before the pandemic) for both the provinces of Bohol and Palawan, one can easily appreciate the impact of TRIP investments on tourist arrivals. For instance, looking at Figure 5 —although the annual values of TRIP funds are uneven from 2016 to 2019 due to varying types of project scope and funding requirements— it can be argued that tourist arrivals in this period have been steadily growing. During this period, total tourist arrivals in the province of Palawan have increased by 49%. Similarly, total tourist arrivals have also increased in Bohol, with an average

growth rate of 17%. A slower growth was recorded in Bohol, as it was already a more established tourism destination compared to a fast-emerging tourist destination like in Palawan during this time.

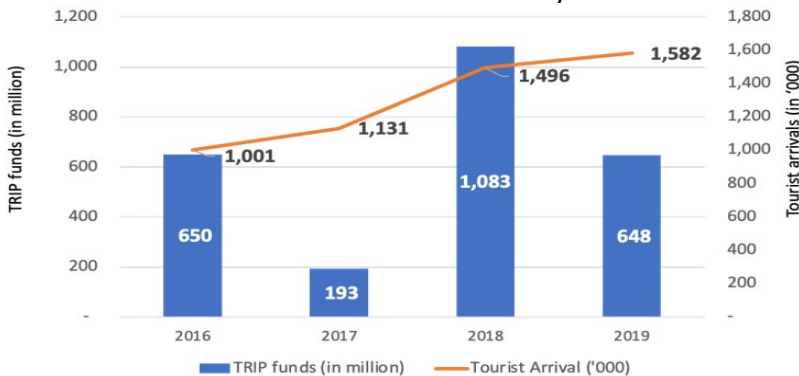
Figure 5
TRIP Funds for and Tourist Arrivals in Palawan



Source of Basic Data: DPWH, DOT, GAA

Source. DBM (2016-2019)

Figure 6
TRIP Funds and Tourist Arrivals for Bohol



Source of Basic Data: DPWH, DOT, GAA

Source. DBM (2016-2019)

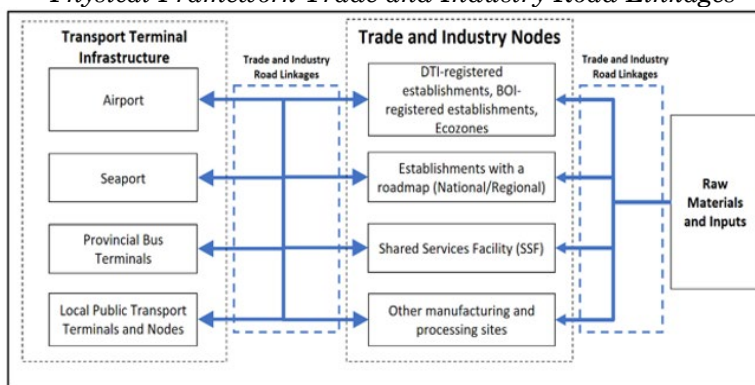
New Convergence Programs

Aside from its tourism, socioeconomic, and environmental impacts, another major legacy of TRIP is that it has also paved the way for other convergence programs, not just between NGAs, but even between NGAs and LGUs. For instance, while the TRIP is ongoing, DOT, DPWH, and Department of Social Welfare and Development (DSWD) have implemented a parallel convergence program called the One-Step Project. This convergence, which promotes inclusive tourism development in the

country, provides livelihood opportunities for poor communities, either through tourism-related or road-related income-generating opportunities. TRIP was also further facilitated by the Secondary Tourism Attraction Roads (STAR), which aims to construct or upgrade roads leading to emerging tourist spots or connect supplier communities to existing tourism destinations. Other sister convergence programs of TRIP include Road-Enhancing Softscapes for Tourism (REST) for the provision of tourism rest areas, road signages, and streetlights; and Tourism Water Infrastructure Program (TouWA) for the provision of water supply in tourism areas (Cabral, 2016).

Four years after TRIP was established, the Roads Leveraging Linkages of Industry and Trade (ROLL-IT) program was organized. The ROLL-IT program is patterned after the success of TRIP. It is a convergence program between Department of Trade and Industry (DTI) and DPWH that aims to “facilitate the efficient and more coordinated efforts to identify, prioritize, and implement road access infrastructure leading to various industries and economic zones in a technically-correct and politically-participative process” (DTI & DPWH, 2016). As illustrated in Figure 7, ROLL-IT prioritizes and implements road projects that connect sources of raw materials and inputs to trade and industry nodes (e.g., ecozones, shared services facilities) and transport terminal infrastructure (e.g., airport, seaport). Similar to TRIP, the REID Foundation also serves as the technical secretariat, providing support to both DTI and DPWH in the implementation of this convergence program.

Figure 7
Physical Framework Trade and Industry Road Linkages



Source. DTI and DPWH (2016)

From 2018 to 2021, PHP42.3 billion was spent on the construction and upgrading of around 2,115 kilometers of access roads, which led to industries and trade corridors across the country. Moreover, road projects under ROLL-IT are expected to improve logistics, particularly to port areas and economic zones, improve investment and productivity, which eventually will contribute to economic opportunities (Cabral, 2020).

A similar, but not directly associated to TRIP convergence program is the *Konkreto at Ayos na LanSangan at Daan Tungo sa Pangkalahatang Kaunlaran* (KALSADA). This is a joint program of Department of the Interior and Local

Government (DILG) and Department of Budget and Management (DBM) to heed the “clamor of League of Provinces of the Philippines (LPP) to address poor state of road infrastructure in the provinces and empower the provinces [for] planning, designing, implementing, and maintaining local road networks” (Amande, 2018, p. 3).

More specifically, the program aims to upgrade around 31,000 kilometers of total road network maintained by the provinces, of which 62% remain unpaved. Unlike in TRIP, where road projects are funded and implemented by DPWH, KALSADA projects are funded by DILG and downloaded to the provinces for implementation. The road projects are jointly identified by the residents and officials of the province. KALSADA aims to achieve the twin objectives of funding local road projects and capacitating the provinces on road network planning and development (Amande, 2018).

On the other hand, like TRIP and ROLL-IT, KALSADA adopts certain criteria for prioritization, funding, and implementation of provincial road projects (Table 5). A total of 209 projects from 74 qualified provinces were implemented under the KALSADA program in 2016, with a budget of PHP6.5 billion from the General Appropriations Act (Amande, 2018).

Table 5
Physical Framework Trade and Industry Road Linkages

Conditions/Criteria to Avail the KALSADA Program	Percentage for each Criterion
<i>Minimum Requirement: Compliance with DILG's Seal of Good Financial Housekeeping (SGFH)</i>	
Focused geographical areas under National Budget Memorandum Nos. 118 and 119	10% - Priority tourism and agricultural provinces and provinces with high poverty magnitude and vulnerable to disasters
Special Local Road Fund (SLRF) completion rate	40% - performance of provinces in implementing SLRF projects for 2011, 2012, and 2014
Percentage shares of unpaved roads	20% - need for roads upgrading/improvement
Percentage share of fair-to-good roads	30% - performance in roads maintenance

Source. Amande (2018, p. 5; adopted from Hamada, 2016)

In 2017, KALSADA was continued, but under a different name: Conditional Matching Grant to Provinces (CMGP). The CMGP embraced three principles: (a) governance reform necessary to sustain local roads management (LRM); (b) building local capacities essential for governance reform and physical works, and (c) incentives matter to improve and sustain local performance (Amande, 2018). Total allocation increased almost threefold to PHP18.03 billion. Road projects to be included in CMGP were governed by criteria stipulated in DILG-DBM Joint Memorandum Circular No. 2017-2. First, an equal base of PHP 45 million for each province for upgrading and renovating at least three kilometers of provincial roads shall be allocated. If there are any remaining funds, these will be allocated following two sub-criteria: need of a province for road upgrading (60%) and provincial land area (40%).

The study of Amande (2018) argued that, apart from facilitating road projects and training provincial officials on road network planning and development, the CMGP showed good governance practices (Table 6).

Table 6
Good Governance Practices of CMGP

Basic Elements of Good Governance	CMGP Salient Features
1. Accountability means making public officials responsible for government behavior and responsive to the entity from which they derive authority.	1. Oversight and implementing agencies are accountable for the preparation of progress reports of the projects, monitoring of the fund releases, and other activities related to the implementation of CMGP.
2. Participation refers to enhancing people's access to and influence on public policy processes.	2. Direct downloading of funds to the provinces to empower the projects that are needed by the citizens.
3. Predictability refers to the fair and consistent application of existing laws, regulations, and policies to regulate society.	3. Issuance of the JMC No, 2017-2 to strengthen the mandated provision of LGC to provide facilities and augment the national budget to the local autonomy.
4. Transparency refers to the availability of information to the public, and clear government rules, regulations, and decisions.	4. Uploading of videos of the projects and the financial and physical accomplishment reports in the OpenRoads Portal

Source. ADB, 1995, as cited in ADB, 2005 and JMC No. 2017-2 (as cited in Amande, 2018, p. 19).

While TRIP and ROLL-IT and KALSADA/CMGP have similarities in terms of objectives, prioritization criteria, and sources of funds, among others, it can be argued that the former are more effective and successful in several ways. First, TRIP and ROLL-IT support specific industries (i.e., tourism, trade, and logistics) that facilitate economic growth, which can further lead to greater and wider socioeconomic benefits. The presence of DOT and DTI in these DPWH-supported convergence programs further illustrates that TRIP and ROLL-IT are industry-driven road infrastructure programs. For KALSADA/CMGP, the main purpose of the program is rather generic, which is to address poor state of road infrastructure in the provinces.

Second, in terms of capacity building on road network development, TRIP and ROLL-IT have the advantage because it involves DPWH, which is the “engineering and construction arm of the government” (DPWH, n.d. -b, “Functions”). DPWH personnel are experts in road planning, design, and construction. For KALSADA/CMGP, the road projects are being implemented directly by LGU planners and engineers who may not have enough capacity in this area.

Third, TRIP and ROLL-IT have an advantage in terms of funding and geographical scope. By the end of 2020, TRIP and ROLL-IT have an accumulated budget of PHP155.8 billion and PHP29 billion, respectively. Both KALSADA and CMGP, on the other hand, have an estimated total budget of PHP50.6 billion since it started in 2016. Both KALSADA and CMGP also focused on provincial roads, while TRIP and ROLL-IT included provincial, city, and municipal roads that lead to tourist destinations or connect trade and industry facilities and meet the prioritization

criteria. Both TRIP and ROLL-IT implemented road projects following DPWH's standards for national roads, as reflected in the project cost of PHP20 million per kilometer, while KALSADA/CMGP road projects did not necessarily follow DPWH's national road standards, and usually cost PHP15 million per kilometer.⁶

Finally, the presence of a third-party CSO technical secretariat in both TRIP and ROLL-IT facilitate the collaboration between the NGAs involved, contributing to the effectiveness of these programs. Table 7 provides a summary of these three road convergence programs.

Table 7
Summary of Road Convergence Programs

Program	Year Established	Accumulated Budget (PHP Billion)*	Accumulated Length (km)*	Local Roads Covered	CSO Partner
TRIP	2012	155.8	7,787.9	Provincial, municipal, city	REID Foundation
ROLL-IT	2016	29.0	1,447.6		
KALSADA/CMGP	2016	50.6	1,447.6	Provincial	Not specified

Note. *up to 2020; for TRIP and ROLL-IT, PHP20 million per kilometer; for KALSADA/CMGP, PHP15 million per kilometer.

Source. DOT and DPWH (2020); DTI and DPWH (2016) for ROLL-IT; DILG-DBM (2017); Amande (2018) for KALSADA/CMGP

Finally, at the policy level, the passage of the Right-of-Way Acquisition Act in 2015 likewise facilitated the implementation of road infrastructure convergence programs. The shift to market value from the traditional BIR zonal valuation is meant to expedite the acquisition of road right-of-way, and, as such, is expected to substantially reduce the number of expropriation cases that slow down the construction of road projects.

Conclusions and Recommendations

This article discussed convergence programs implemented by different NGAs, as a manifestation of alternative forms of collaborative governance in the Philippines. While, in theory, the government should act as one big convergence, this rarely happens in practice. To narrow the collaboration gap, this article highlighted key factors based on literature and presented specific cases that can showcase how collaborative governance can better work in the Philippines.

This study also revisited the case of DOT-DPWH and DTI-DPWH Convergence and CMGP Programs as recent examples of collaborative governance in the Philippines. The study highlighted similarities and differences between these programs and argued that the former has an advantage over the latter in terms of focus (target industries), direct involvement of DPWH, budget, types of local roads covered, standards of the projects being implemented, and presence of a third-party civil society partner. Another major advantage of DPWH-supported convergence

programs is that they can be easily replicated or expanded to accommodate other industries or sectors that require improvement of access roads.

While previous case studies on TRIP for Bohol and Palawan exist, this article integrated these studies with insights from existing literature on collaborative governance to validate factors that facilitate successful convergence programs. This article also illustrated the positive impact of tourism road investments on tourist arrivals at the provincial level.

In view of the discussions presented, this article offers the following recommendations:

First, while the convergence programs discussed in this article show that intergovernmental collaboration can bear fruits, a possible concern is that different convergence programs may be established in the future, but in isolation with other convergence programs. TRIP, ROLL-IT, and the KALSADA/CMGP Programs all address the same objective of enhancing local road conditions in the country, but they are all being implemented separately. As such, these programs should also be coordinated to further maximize the program benefits, particularly in terms of improving road network and seamless connectivity in the country.

Second, given that the road convergence programs discussed in this article are relatively recent, it is recommended that more studies focus on the impact of these programs in terms of actual contributions to tourism, industries, and local economic development. These programs may also consider utilizing technology applications (e.g., dashboard and geotagging) to empower their M&E systems to better capture the impact of these programs.

Finally, this study recommends that national government agencies and LGUs explore other areas, other than infrastructure, where they can practice collaborative governance. Socioeconomic areas, such as basic facilities, livelihood, and interlocal trade, can also benefit from similar convergence programs.

Endnotes

¹ Section 34–Tourism Infrastructure Program.–The Department (DOT), in accordance with the National Tourism Development Plan (NTDP) and local government initiatives, shall coordinate with the Department of Public Works and Highways (DPWH) and the Department of Transportation and Communications (now Department of Transportation) in the establishment of a tourism infrastructure program in the respective work programs of said agencies, identifying therein vital access roads, airports, seaports and other infrastructure requirement in identified tourism areas. The said agencies and the DBM shall accord priority status to the funding of this tourism infrastructure program.

² The standard DPWH MCA tool is composed of the following factors: technical/engineering aspect, financial (cost), social (project affected families), and environmental (trees to be cut, proximity to protected areas).

³ PHP50/1US\$ exchange rate was applied.

⁴ REID Foundation was accredited as a civil society partner of DPWH to help in the prioritization and funding process of TRIP projects. For more information on REID Foundation: <https://www.reid.ph/>

⁵ The Advancing Philippine Competitiveness (COMPETE) Project was an initiative of the United States Agency for International Development (USAID) under the Partnership for Growth (PFG) engagement with the Philippine Government. It was implemented in 2013-2017 with the primary objective of promoting trade and investment in the agribusiness, tourism, and manufacturing sectors by providing better infrastructure and increasing access to credit by micro, small and medium enterprises. COMPETE provided technical assistance to the DOT-DPWH TRIP (full implementation)

and ROLL IT (conceptualization phase) convergence programs. As a fitting highlight, the project ended in 2017 with its TRIP activity being featured as a case study in the USAID Asia and Middle East Economic Growth Best Practices Program.

⁶ Calculated using equal base allocation of PHP45 million for at least 3 km of provincial roads (DILG-DBM, 2017).

References

- Agabin, M. & Travers, R. (2017). *Impacts of new infrastructure on tourism in the Philippines* A study prepared for the United States Agency for International Development. Chemonics International.
- Amande, N. (2018). KALSADA and CMGP: *A tool for significant decentralization?* Unpublished manuscript.
- Asian Development Bank. (2019). *Developing Asia needs to invest more than 5% of GDP over next decade for infrastructure*. <https://www.adb.org/news/developing-asia-needs-invest-more-5-gdp-over-next-decade-infrastructure>
- Basilio, E. (2013). *Opening remarks for the Convergence Program Development Conference*.
- Cabral, M. C. (2016). It's more Fun(ds) for tourism roads: A DOT-DPWH convergence program on enhancing tourism access. *University of Asia and the Pacific-Strategic Business Executive Program Journal*. University of Asia and the Pacific.
- Cabral, M. C. (2020). *Keep moving forward: DPWH programs and projects in support of supply chain and logistics* Presentation. SCAn Networks Hub e-Forum. UP Public Administration Research and Extension Services Foundation, Inc. (UPPAF) & Regulatory Reform Support Program for National Development (RESPOND).
- Department of Budget and Management. (2016-2019). *General Appropriations Act*. <https://www.dbm.gov.ph/index.php/budget-documents/> Accessed on
- Department of the Interior and Local Government & Department of Budget and Management. (2017). *Joint Memorandum Circular No. 2017-2*. Guidelines for the implementation of the Conditional Matching Grant to Provinces (CMGP) for road repair, rehabilitation and improvement (CMGP) for FY 2017 and thereafter. <https://www.dbm.gov.ph/wp-content/uploads/Issuances/2017/Joint%20Memorandum%20Circular/DILG-DBM-JOINT%20MEMORANDUM%20CIRCULAR%20NO.%202017-2.pdf>
- Department of Public Works and Highways. (n.d. -a). *DPWH Atlas*. [https://www.dpwh.gov.ph/dpwh/DPWH_ATLAS/Tables%20&%20Graphs%20\(Roads\)/Road%20Data%202016/ATLAS%202016/Table%201.1a.htm](https://www.dpwh.gov.ph/dpwh/DPWH_ATLAS/Tables%20&%20Graphs%20(Roads)/Road%20Data%202016/ATLAS%202016/Table%201.1a.htm)
- Department of Public Works and Highways. (n.d. -b). *About DPWH*. <https://www.dpwh.gov.ph/dpwh/content/about-dpwh>
- Department of Tourism & Department of Public Works and Highways. (2020). *Department of Tourism and Department of Public Works and Highways Convergence Program (2012-2020)*.
- Department of Trade and Industry & Department of Public Works and Highways (2016). *Department of Trade and Industry and Department of Public Works and Highways Convergence Program* Presentation.
- Doherty, M. (2015). *Factors of successful collaboration: Oregon's watershed councils as collaborative systems*. National Policy Consensus Center Publications and Reports 1. https://pdxscholar.library.pdx.edu/ncpp_pub/1/
- Kozuch, B. & Sienkiewicz-Maljurek, K. (2016). Factors of effective inter-organizational collaboration: A framework for public management. *Transylvanian Review of Administrative Sciences*, 47, 97-115. <https://core.ac.uk/download/pdf/53137317.pdf>
- Mirabueno, J. (2013). *The role of multi-actor collaboration in public sector innovation: The case of the Department of Tourism and Department of Public Works And Highways' convergence program for enhancing tourism access* [Unpublished master's thesis] University of Asia and the Pacific.
- Mirabueno, J. & Yujuico, E. (2014). Paving the way for Philippine tourism via interagency collaboration on road networks. *Transport Policy*, 36, 306-315. <http://dx.doi.org/10.1016/j.tranpol.2014.10.002>
- Muñoz, A. (n.d.). *Collaborative governance: Unwavering solution to COVID-19 crisis* [Unpublished paper].
- Republic Act 9593. *Tourism Act of 2009*. (2009).

- Research, Education, and Institutional Development Foundation, Inc. (2019). *Public spending on infrastructure development* [Presentation].
- Schwab, K. (2019). *The global competitiveness report*. The World Economic Forum. http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf
- Tang, S. & Mazmanian, D. (2014). *Collaborative governance*. https://www.researchgate.net/publication/264977746_Tang_Mazmanian_Collaborative_Governance

Enrico L. Basilio is an Associate Professor at the National College of Public Administration Governance, University of the Philippines Diliman. He can be reached at elbasilio@up.edu.ph.

Rafael April S. Rivera is a Senior Lecturer at the University of the Philippines School of Urban and Regional Planning, and University of Asia and the Pacific. He can be reached at rsrivera2@up.edu.ph or rafael.rivera@uap.asia.

Declaration of Conflicting Interests and Funding. The authors declare no conflict of interest in the conduct of the study

Acknowledgment. The authors express their gratitude to the Department of Public Works and Highways, Department of Tourism, and Department of Trade and Industry for the basic data used in this study.

