

The Allocative Efficiency Analysis of Special Allocation Fund for Road Sector in 2015-2019

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Abstract. Indonesia, as an archipelago, requires connectivity infrastructures to ease mobility and equitable development. However, the current condition has not reflected a decent quality of road infrastructure. The road sector's special allocation funds are the main instrument for financing local road infrastructure development following national priorities. Departs from this, the study analyzes the extent to which the allocation for the Road Sector in 2015-2019 complied with the Allocative Efficiency principles as part of the public expenditure management (PEM) framework. The research uses a postpositivism approach with primary data analysis (in-depth interviews) and secondary data in literature reviews, regulatory reviews, and descriptive statistics. The study concluded that the 2015-2019 allocation was not optimally in line with priority-based allocations, a weak medium-term budgeting perspective, poor consolidation within the local autonomy, and several contradictions among regulations. Even though there are several weaknesses in the practice of implementing allocative efficiency principles, the Government's strong commitment is reflected in the Cabinet Review annually and the planned issuance of the Presidential Instruction of Regional Roads. This study brought practical recommendations highlighting the need to sharpen priority targets and recipients, adopt the medium-term expenditure framework (MTEF), and regulatory harmonization. In addition, it is essential to revamp the structure of regional capital spending and the need to accommodate roads in the Minimum Standards Services.

Keywords: allocative efficiency; infrastructure; road sector; special allocation funds.

Abstrak. Indonesia sebagai sebuah negara archipelago membutuhkan infrastruktur konektivitas yang berperan penting bagi mobilitas dan pemerataan pembangunan. Namun saat ini keberadaannya belum diiringi oleh kualitas kemantapan jalan daerah yang baik. Dana Alokasi Khusus (DAK) Fisik Bidang Jalan merupakan instrumen utama bagi pembiayaan infrastruktur jalan yang menjadi wewenang pemerintah daerah sesuai dengan prioritas nasional. Berangkat dari hal tersebut, penelitian ini menganalisis sejauh mana DAK Bidang Jalan di tahun 2015-2019 telah memenuhi kaidah *Allocative Efficiency* sebagai bagian dari kerangka manajemen keuangan negara. Penelitian menggunakan pendekatan postpositivisme melalui analisis data primer (wawancara) dan data sekunder berupa kajian literatur, revidi peraturan perundang-undangan, dan statistik deskriptif. Hasil kajian menyimpulkan bahwa DAK Jalan di 2015-2019 belum optimal diarahkan pada alokasi berbasis prioritas, lemahnya perspektif penganggaran jangka menengah, belum optimalnya konsolidasi otonomi daerah, serta beberapa kontradiksi pada regulasi terkait. Meskipun terdapat beberapa kelemahan pada praktik pelaksanaan kaidah *allocative efficiency*, namun komitmen Pemerintah secara kuat tercermin dari dilaksanakannya *Cabinet Review* secara berkala dan rencana penerbitan kebijakan Inpres Jalan Daerah. Penelitian ini menghasilkan rekomendasi berupa perlunya penajaman sasaran prioritas, daerah penerima, dan kerangka penganggaran jangka menengahnya serta harmonisasi regulasi. Selain itu diperlukan pembenahan struktur belanja daerah dan pengaturan kembali Jalan dalam Standar Pelayanan Minimal (SSM).

Kata Kunci: *Allocative Efficiency*; DAK Fisik; infrastruktur; kelembagaan; Jalan

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INTRODUCTION

The availability of adequate and quality connectivity infrastructure (roads) is a prerequisite for economic growth and regional development (Ben, 2019). Affluent countries generally have good quality road infrastructure making it easier to encourage the growth of economic sectors such as agriculture, trade, and industry. In contrast, poor countries tend to have significant obstacles in these sectors due to the poor quality of their road infrastructure (Ng et al., 2019). Asian Development Bank (ADB) report entitled "The Role and Impact of Infrastructure in Middle-Income Countries: Anything Special?" mentions that basic infrastructure services and connectivity make economic activity run and function (Abiad et al., 2017). In addition, road infrastructure also has an impact on increasing investment, accelerating urbanization, and forming new economic pathways (Ben, 2019).

Indonesia entails this role as a developing country and emerging economy with a share of infrastructure to GDP still very low at 43% compared to the global average, which reaches 70%. (Bappenas, 2019). Nonetheless, there has been a significant rise due to the reallocation of spending, which has increased from 8.2% (2012-2014) to 9.8% in 2018 (World Bank, 2020).

The Special Allocation Fund, or *Dana Alokasi Khusus* (DAK), is a type of intergovernmental transfer commonly used to finance infrastructure development (Boadway & Shah, 2007). In line with this research on connectivity infrastructure, road quality in 2019 has reached 70% (target of 75%) for provincial roads and 59% (target of 65%) for district/city roads. This attainment was driven by the allocation of Physical DAK for Roads to finance the maintenance, rehabilitation, improvement, and construction of new roads. In addition, 19,967 km of new bridges have been built as part of the national connectivity agenda.

The Physical DAK for Road Sector is within the realm of technical coordination of the Ministry of Public Works and Housing (MPWH) and coordinating with other ministries such as the Ministry of Finance, the Ministry of National Development Planning, and the Ministry of Home Affairs. The allocation of DAK Roads in 2015-2019 reached 83.85 trillion or 60% of the total DAK allocation supervised by the PUPR Ministry, as shown in the image below. That shows the amount of attention given to improving the quality of regional roads as a form of connectivity infrastructure development.

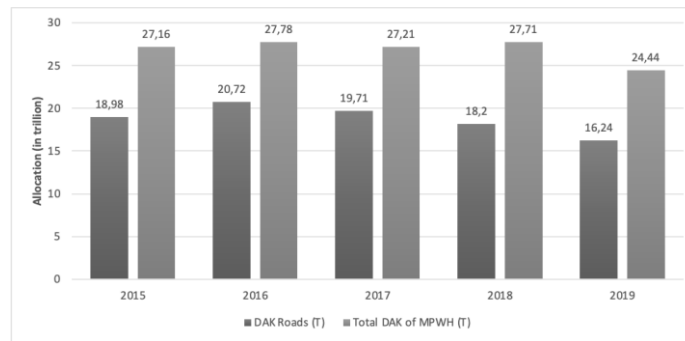


Figure 1. Comparison of DAK Roads and Total DAK Allocation for MPWH
 Source: MPWH, analyzed by the author.

Nevertheless, this enormous allocation has not led to a significant accomplishment of the regional road quality target, which is still far beneath the targets for other sectors, as shown in Figure 2 below.

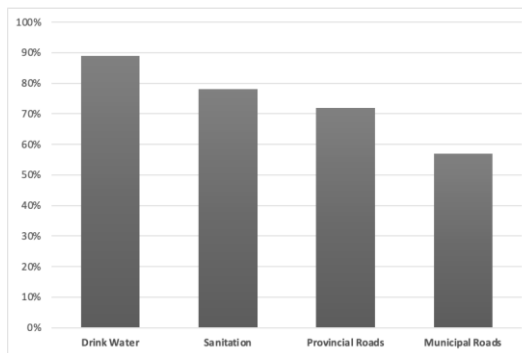


Figure 2. Comparison of road quality with other sectors.
 Source: MPWH, analyzed by the author.

Figure 3 below also shows how the quality of regional roads (Provinces & Districts/Cities) is still below the national roads, reflected in surface conditions and road quality. District/city roads are the longest compared to provincial and national roads in 2020 and have the lightest and most heavy damage conditions. That shows that the quality of regional roads, especially districts/cities, still needs to improve. Whereas the quality of roads is beneficial for mobility and opening market access through reduced transportation costs and time which in turn brings forth high economic returns in an area (Ng et al., 2019).

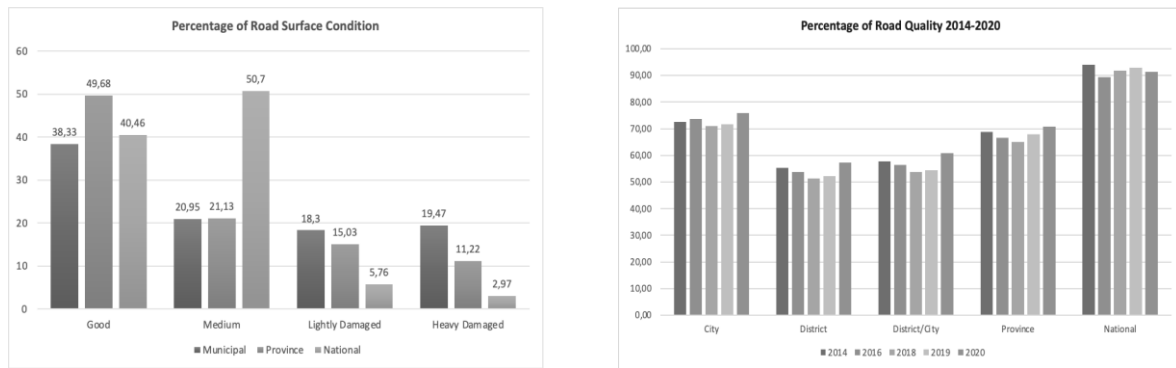


Figure 3. Percentage of road surface condition and road quality.

Source: MPWH, analyzed by the author.

This research departs from these facts and aims to examine the extent to which DAK allocations for the road sector in 2015-2019 were directed based on priorities, as Schick (1998) stated that allocative efficiency testing is weighted on the quality of the allocation itself. The study of how the state budget is spent refers to Public Expenditure Management (PEM). According to Schick (1998), PEM consists of three main objectives: aggregate fiscal discipline, allocative efficiency, and technical/operational efficiency. Aggregate fiscal discipline talks about prudently managing the balance of spending and the budgeting process to avoid budget pathologies. Allocative efficiency refers to allocating the budget to finance programs/activities/projects based on priority needs. Meanwhile, operational/technical efficiency talks about how a program/activity is carried out at the most efficient and competitive cost possible.

Schick (1998) describes that the core of the Allocative Efficiency principle consists of several elements, including:

1. Allocation based on strategic objectives and priority.
2. *Medium-term expenditure framework* (MTEF).
3. Budget reallocation.
4. Systematic evaluation and review of policy and program.
5. *Cabinet review* focuses on policy improvement.

Departs from these principles, this research analyzes the implementation of the DAK Roads during 2015-2019. Several similar studies were conducted by Pambudi et al (2022), who focused on DAK Roads in Papua Province in fiscal year 2019, Nurkholis (2022), which led to the adoption of an immediate outcome for Physical DAK for public works and housing, Aritenang (2020) who examined the flypaper effect on local capital spending, and Wibowo et al (2011) who questioned the weakness of the specificity in DAK allocations.

However, some of these studies have limitations in each focuses. The study from Pambudi et al (2022) for example, only examined the DAK Assignment of Roads in 2019 which then focused on case study in West Papua Province that explained many obstacles in DAK Road implementation. Pambudi et al (2022) revealed the initial insight that reflected how the allocation of DAK Assignment haven't met with priority-based. Departs from that research, it is important to capture the policy at national level and medium-term planning perspective; considering that DAK policy is regulated in 2015-2019 RPJMN. Much earlier, a study by Wibowo et al (2011) examined how DAK allocations in general did not reflect the specificity of their allocations. However, the study has not focused particularly on allocations for road infrastructure.

Another gap found from these studies is the absence of a specific theory related to state expenditure management as a reference for analysis so that the discussion becomes comprehensive and thorough. As part of a fiscal instrument, DAK policy needs to be viewed from a broader perspective, namely public expenditure management. Therefore, this research aims to answer the study gaps by using the allocative efficiency framework of Public Expenditure Management (PEM) by Allen Schick (1998) to examine the DAK policy for Road Sector in 2015-2019. The Allocative Efficiency framework of PEM is aligned with the perspective of medium-term development planning used in the 2015-2019 RPJMN.

METHODS

This study uses a post-positivism paradigm approach which aims to analysis the extent to which allocative efficiency rules are fulfilled in the DAK for the Road Sector in 2015-2019 concerning Schick's theory (1998). Data collection techniques used a qualitative approach in the form of primary data through in-depth interviews with sources representing relevant agencies. In addition, an analysis of secondary data was also carried out in the form of nominal allocations, technical indicators, report documents, laws and regulations, and various other literature to provide in-depth research and triangulation. Statistical data used were in the form of nominal allocation of DAK Roads in 2015-2019, quality of roads, and local government budget.

DISCUSSION AND ANALYSIS

1. Priority-based Allocation

Even though priority locations such as underdeveloped areas, borders, islands, tourism, and Special Economic Zones/Industrial Zones have been regulated, their fulfillment has not been optimal when viewed from the number of recipients. Table 1 shows that more than 99% of the local government received the allocation in 2015-2019, contrary to the 2015-2019 RPJMN policy which mandates sharpening.

Table 1.
DAK Roads Recipients in 2015-2019.

Year	Total of Local Govt.	DAK Recipient	Percentage
2015	449	445	99,1%
2017	548	538	99,3%
2018	548	539	99,4%
2019	548	536	98,9%

Source: Ministry of Finance, analyzed by the author.

In terms of nominal value, the allocation of DAK for Road Assignments in 2019 aimed at Disadvantaged Regions is still below the national average. That indicates the weak prioritization of allocations. The same phenomenon also occurred in Special Economic Zones/Industrial Zone areas in 2019 as the results of research by Pambudi et al. (2022).

Table 4.
Nominal of Assignment DAK of Roads for Underdeveloped Regions in 2019.

Province	District/City	Allocation Received	Province	District/City	Allocation Received
Aceh	Aceh Singkil	12.014.979		Pesisir Barat	12.014.979
Sumatera Utara	Nias	12.369.817	Jawa Timur	Bondowoso	14.391.110
	Nias Selatan	12.528.026		Situbondo	12.014.979
	Nias Utara	13.829.087		Bangkalan	12.014.979
	Nias Barat	12.263.448		Sampang	12.014.979
Sumatera Barat	Kep. Mentawai	22.246.650	Banten	Pandeglang	18.015.969
	Solok Selatan	14.117.278		Lebak	18.719.966
	Pasaman Barat	12.312.924	NTB	Lombok Barat	18.570.574
Sumatera Selatan	Musi Rawas	13.778.212		Lombok Tengah	18.306.627
	Musi Rawas Utara	12.014.979		Lombok Timur	18.306.627
Bengkulu	Seluma	12.014.979		Sumbawa	12.014.979
Lampung	Lampung Barat	12.014.979		Dompu	12.014.979
				Bima	12.547.105

Province	District/City	Allocation Received
	Sumbawa Barat	12.014.979
	Lombok Utara	17.384.869
NTT	Sumba Barat	12.014.979
	Sumba Timur	20.273.566
	Kupang	17.751.841
	Timor Tengah Selatan	13.787.002
	Timor Tengah Utara	18.395.078
	Belu	17.265.214
	Alor	18.760.949
	Lembata	12.014.979
	Ende	13.148.898
	Manggarai	10.319.000
	Rote Ndao	23.625.823
	Manggarai Barat	19.670.274
	Sumba Tengah	12.219.350
	Sumba Barat Daya	12.680.012
	Nagekeo	12.014.979
	Manggarai Timur	20.068.127
	Sabu Raijua	18.394.606
	Malaka	16.451.691

Source: MoF, analyzed by the author.

In addition, sampling tests show that some areas have high road quality indicators but receive high allocations, while some areas have low road quality and low DAK allocations. That can be seen, for example, in the comparison between East Java Province and Gorontalo Province in 2019. East Java, with quality of provincial roads at 90.31% and fiscal independence of 0.57, received a Regular DAK allocation of IDR 23.9 billion, more significant than received by Gorontalo with IDR 19.6 billion even though its road quality was much lower at 41.46% and its fiscal independence only reached 0.22.

There are also mismatched arrangements of priorities occurred in 2017 & 2018, which included the phrase Regional Priorities. In 2017 the Regional Priority thematic were included in the Assignment DAK type, while in 2018, they were included in the Regular and Assignment DAK. This theme did not appear in DAK in 2015, 2016, 2019, to 2022. Weaknesses in the consistency of priorities can also be seen from the classification of the DAK Road types that changes every year. The 2015-2019 RPJMN stipulates that regional road quality as an SSM must be achieved with the Regular DAK instrument. However, in 2017, Regular DAK did not include the Road Sector but Assignments DAK and then returned to Regular DAK in 2018 & 2019. As for DAK Assignments for the Road Sector, it only appeared in 2017, while in 2015 and 2016, it did not exist yet. The Affirmation DAK only did not exist in 2018, while 2015, 2016, 2017, and 2019 appeared. That indicates the weak consistency of the policy direction. This finding also matches with result of study by Manshur (2020) that indicates the weakness of DAK policy consistency.

Table 3.
The Dynamics of DAK Allocation of Road Sector in 2015-2019.

DAK Type	2015	2016	2017	2018	2019
Regular DAK	455	244	-	275	529
Assignment DAK	-	-	538	265	229
Affirmation DAK	196	177	153	-	199
Additional DAK	220 (P3K2)	-	50	-	-

Source: RKP, analyzed by the author.

This inconsistency is compounded by an unregulated SSM for Roads starting in 2019 with stipulation of The Government Regulation No. 2 in the year 2018 concerning SSM which no longer acknowledged SSM for Roads. That is quite contrary to RPJMN 2015-2019, RPJMN 2020-2024, and Law No. 2 of 2022 on Roads. That shows the problem of harmonizing the Physical DAK regulation, which also impacts the Road sector's allocation.

In conclusion, the weakness of priority-based allocation perspective in DAK Roads 2015-2019 reflected on the number of recipients, insignificant amount of allocation received by underdeveloped regions, some mismatched in priority arrangement, and unregulated standard service minimum of road sectors. Those are believed to contribute on the ineffectiveness of allocation to address local road quality targets.

2. Medium-Term Expenditure Framework (MTEF)

First, the MPWH Regulation concerning the Physical DAK Technical Guidelines, issued annually, mandates the road infrastructure development plans and their investment/financing needs. However, the mandate has not been delivered by the local government. Second, the adoption of MTEF has not been fully implemented, as seen from the wide gap between local government proposals, allocations received, and their realization, as shown in Figure 4.

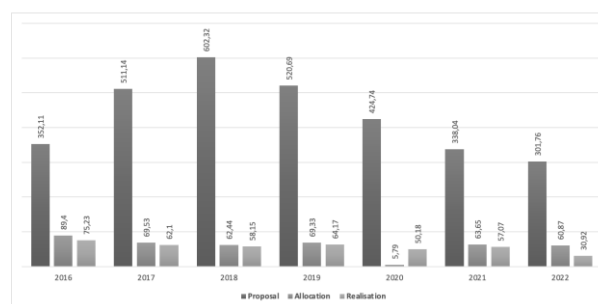


Figure 4. Comparison of Proposal, Allocation, and Realization of DAK.

Source: MoF, analyzed by the author.

The above condition is also shown through the data in the table below, which shows the planning quality level where the Road Sector has the lowest achievement.

Table 5. Quality of DAK Planning.

No	Activity Performance Indicator	Sector	Target (%)	Calculation	Realisation
1	Quality of Planning	Irrigation	25%	61,08%	62,97%
2		Road		48,35%	
3		Drink Water		68,13%	
4		Sanitation		67,91%	
5		Housing		56,74%	

Source: MPWH.

Third, the target for regional roads quality eventually will not be achieved if we rely only on DAK/capital transfers where to achieve a 10% increase in the quality of the regional roads requires an additional allocation of IDR 38 trillion - IDR 104 trillion (PFID, 2022). While the allocation received is far below this nominal each year.

Fourth, the weak adoption of MTEF is also compounded by the weak consolidation of central-local budgeting. Local spending allocations in the local budget for housing and public facilities functions (including road allocations) are still relatively low compared to total regional spending and capital spending. By comparison, the percentage of capital expenditure to regional expenditure has decreased from 2016 to 2019. Likewise, spending on housing and public facilities to regional expenditure in 2016 reached 17%, and in 2019 only reached 13%. Even in 2018, the percentage only reached 7%. Meanwhile, the percentage of spending on housing and public facilities to capital expenditure reached 87%, indicating the direction of spending on infrastructure.

Table 6.
Comparison of Local Spending Behaviour.

Year	Capital : Total	Function : Total	Function: Capital
2016	20%	17%	87%
2017	17%	10%	62%
2018	15%	7%	47%
2019	13%	12%	87%

Source: MoF, analyzed by the author.

In conclusion, DAK Roads hasn't applied the medium-term expenditure framework. The findings send a strong signal to emphasize the needs to reform local government budgeting to increase their contribution of capital spending for roads infrastructure. The dynamic change of policy direction and objective in 2015-2019 also reflected how the DAK Roads policy did not put focus on the main target of local road quality.

3. Budget Reallocation

Schick (1998) states that the keyword in the allocative efficiency rule is the possibility of reallocating the budget from things of less priority to those with higher priority. Analysis of the Physical DAK for the Road Sector in 2015-2019 from the perspective of Budget Reallocation shows that there is room for reallocation of the budget as reflected in the Operational Instructions in the PUPR Ministerial Regulation. The table below illustrates

spatial arrangements for budget reallocation by local governments concerning the implementation of the Physical DAK (not limited to the Road Sector) during 2015-2019. It shows that the arrangement has been adequate and accompanied by the underlying conditions. The change in designation requires the approval of the Minister of Public Works and Public Housing and the Minister of Finance as a form of control by the central government.

Table 7.
Regulation on Budget Reallocation.

MPWH Regulation No. 3 of 2015	MPWH Regulation No. 47 of 2015	MPWH Regulation No. 33 of 2016	MPWH Regulation No. 21 of 2017	MPWH Regulation No. 2 of 2019
Article 23	Article 24	Article 25	Article 10	Article 11
1. Natural disaster	1. Natural disaster	1. Natural disaster	1. Natural disaster.	1. Natural disasters and/or public unrest

Source: MPWH.

In conclusion, the DAK policy particularly on road sector has been aligned with the budget reallocation aspect of allocative efficiency. This reflects that the government has the agility to reallocate from lower to higher priority in case there is a disaster or public unrest occurred.

4. Program Evaluation

The research result shows that the implementation guidelines for monitoring and evaluating the use of DAK (including the Road Sector) have been regulated in Government Regulation No. 55 of 2005, Circular Letter of Minister of Development Planning-Minister of Finance-Minister of Home Affairs in 2008, and MPWH regulations. Based on the evaluation conducted, there are several notes as follows.

- a. Lack of compliance with operational guidelines.
- b. Problems on the implementation of road and bridge data surveys.
- c. Problems with the suitability of the project implementation with the activity plan.
- d. Local government's low commitment in infrastructure maintenance.
- e. Human resource capacity is still not optimal.
- f. The tiered coordination system between multi-level governments has not run optimally.

- g. The DAK performance was effective in the middle of the year.
- h. The affirmative approach has not been implemented for the islands area yet.

In addition, MPWH uses DAK E-Monitoring for monitoring and evaluation, but the interface is less informative, as seen in the image below. This display, for example, does not show the S-curve of planned-realized performance nationally, division by type of DAK (Regular, Assignment, Affirmation), and the level of performance reporting compliance. Several regions also do not display the S-curve of DAK performance. The new types of DAK appear in project details per region. In addition, currently, the domain name is <https://103.211.50.189/dak/dakpupr.php> making it difficult for people to find/access it. Therefore, it is necessary to improve the visualization in DAK E-monitoring.

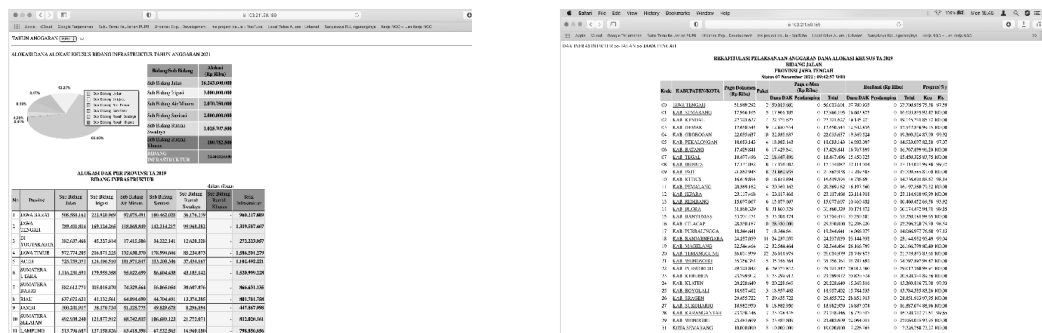


Figure 5. DAK E-Monitoring DAK
Source: MPWH.

One of the issues that emerged is the involvement of the Ministry of Home Affairs in DAK Monitoring and Evaluation, which has not been contained in Government Regulation No 55 of 2005, especially in Article 64. The article only states that the Minister of National Development Planning (Bappenas), together with the Technical Minister, conducts monitoring & evaluation of the technical implementation of DAK and the Minister of Finance for the financial management. Although the Joint Circular Letter was later issued by 3 Ministers concerning Implementation Guidelines for Technical Monitoring of the Implementation and Evaluation of the Utilization of DAK, it is also legally weak because it is not considered a product of statutory regulations. The Ministry of Home Affairs' authority has been guaranteed and regulated in Government Regulation No. 12 of 2017 concerning the Guidance and Supervision of the Implementation of Local Government, where Article 2 states that the Ministry of Home Affairs coordinates the general monitoring evaluation.

The results of interviews indicate that it is necessary to strengthen the evaluative role of the relevant agencies. First, there is a need to synchronize and strengthen institutional coordination between the MPWH and the Ministry of Home Affairs in terms of fostering local governments regarding the management of Physical DAK. It is in line with the mandate of Article 3 paragraph (6) Government Regulation Number 12 of 2017 concerning the Development and Supervision of Regional Government Administration, which states that the Ministry of Home Affairs coordinates with the technical Ministry, in this case, MPWH. The strengthening of coordination has been carried out to exercise the DAK policy so far, whether it is on target and efficient in solving development problems.

Second, the Ministry of Home Affairs plays a local government guide in the DAK implementation. However, several sources stated that the Ministry of Home Affairs role is still weak and not strategic enough because it is not focused on consolidating regional autonomy. An example is that they tend to appear passive and use the same variable used by other ministries in the verification stage (redundant).

Third, the role of the Ministry of PUPR also needs to be enhanced, particularly in the implementation of road sectoral technical guidance and supervision. Even though the Ministry of Home Affairs conducts general supervision, the technical minister, in this case, MPWH, should provide technical guidance not only on DAK but also on how local governments manage their spending for infrastructure development. The implementation of technical supervision is mandated by Government Regulation No. 12 of 2017 Article 3 Paragraph (1), which mandates the Technical Minister to carry out technical assistance. However, if seen during the DAK in 2015-2019, there have not been many significant policy changes related to how to encourage improvement in local government spending structure for infrastructure (including for regional roads) so that it does not depend only on intergovernmental transfers. The uncertainty in the supervision of regional roads between the Ministry of Home Affairs and the MPWB makes it difficult to answer who is responsible for the level of quality of regional roads.

Fourth, synchronization between the local house of representatives and the local government as the executive in proposing which road sections to be funded with DAK needs to be strengthened. In addition, the Board of Local Development Planning or *Bappeda* also needs to play a more active role in promoting the quality, integration, and sustainability of development planning in the regions. That is important considering that

the weaknesses of local government are in planning, implementing, and evaluating performance, as shown in the Government Agencies Performance Accountability System (*Sistem Akuntabilitas Kinerja Instansi Pemerintah/SAKIP*). SAKIP scores for district/municipal governments tend to be far below those for the provincial government and central ministries/agencies, as illustrated in the figure below.

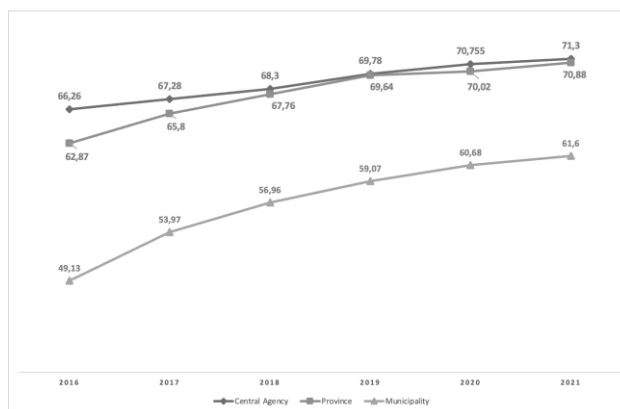


Figure 5. SAKIP Score in 2016-2021.

Source: Ministry of Civil Apparatus Empowerment/Reform Bureaucracy, *adapted by the author.*

In conclusion, the government already has strong program evaluation mechanism to supervise the DAK Roads performance. The findings explained above reflects that there are still many problems and challenges in implementing DAK for roads particularly on local area. This implies the needs to strengthen the monitoring and evaluation mechanism not only from central government but also local government and local house of representatives.

5. Cabinet Review

Schick (1998) believes that the Cabinet Review should focus on improving policies' quality, not only on technical items. An analysis of the Physical DAK for the Road Sector in 2015-2019 from the perspective of the Cabinet Review shows that a multilateral meeting has been held annually to discuss the synchronization of DAK policies, including the Road Sector, based on national priority. In addition, the government plans to issue a Presidential Instruction for the construction of regional roads by allocating IDR 32.7 trillion (Setneg, 2023). Therefore it can be concluded that the DAK for Roads in 2015-2019 has met the allocative efficiency rules in the Cabinet Review aspect where at a high level, discussions improving the quality of the DAK Fisik policy are routinely carried out.

CONCLUSION AND RECOMMENDATION

Fulfilling the Allocative Efficiency principles in the 2015-2019 Physical DAK Road Sector has not run optimally. In terms of priority-based allocation there are still some problems related to number of recipients, insignificant nominal of allocation, the contradiction among regulation, and the unregulated standard service minimum for road sectors. The adoption of the Medium-Term Expenditure Framework (MTEF) is also weak reflected on the low quality of planning, insufficient allocation to achieve the target of local roads quality, and weak contribution of local capital spending for road infrastructure. In other aspects, comprehensive evaluative indicators have been used, budget reallocation adequately regulated, and in the Cabinet Review aspect, high-level discussions have been held every year discussing the improvement of DAK policy.

This research proposes several recommendations for improving the quality of the DAK for Roads to meet the Allocative Efficiency principles. In the aspect of priority-based allocation, it needs to sharpen recipient areas and priority criteria, and strengthen policy direction in the RKP. In the aspect of MTEF, it needs to promote socialization of technical guidance to local governments regarding the adoption of medium-term road infrastructure investment and development plans. In addition, it needs to consolidate central-local financial relations, a government regulation to synchronize the DAK with the local budgeting stages, and eliminate contradictions between regulations. Then it is necessary to ensure that the draft of government regulation as the implementing legal for Law no. 1 of 2022 explicitly stipulates the direction of the DAK policy in the medium and long-term perspectives, the criteria used for determining the recipients, and the involvement of the Ministry of Home Affairs. Reinvolverment of roads as part of SSM is also required through the revision of Government Regulation no. 2 of 2018 and MPWH Regulation No. 29 of 2018.

This study also encourages further studies which focus on the *ex-ante* evaluation of government's plan to issue Presidential Instruction on Local Roads Improvement, how to restructure local government fiscal space, and reviewing the priority objectives in medium-term framework.

REFERENCES

- Abiad, A., Debuque-Gonzales, M., & Sy, A. L. (2017). *The Role And Impact Of Infrastructure In Middle-Income Countries: Anything Special?* <http://dx.doi.org/10.22617/WPS178974-2>
- Aritenang, A. F. (2020). The effect of intergovernmental transfers on infrastructure spending in Indonesia. *Journal of the Asia Pacific Economy*, 25(3), 571–590. <https://doi.org/10.1080/13547860.2019.1675352>
- Bank Dunia. (2020). *Belanja untuk Hasil yang Lebih Baik*. www.worldbank.org/id
- Ben, S. O. (2019). Significance of Road Infrastructure on Economic Sustainability. *American International Journal of Multidisciplinary Scientific Research*, 5(4), 1–9. <https://doi.org/10.46281/aijmsr.v5i4.405>
- Boadway, R., & Shah, A. (2007). *INTERGOVERNMENTAL FISCAL TRANSFERS: PRINCIPLES AND PRACTICE*. Washington: The World Bank.
- Government Regulation Number 55 of 2005 concerning Intergovernmental Transfers.
- Government Regulation Number 65 of 2005 concerning Guideline on Conducting Standard Service Minimum.
- Government Regulation Number 78 of 2014 concerning the Acceleration of Development for Underdeveloped Regions.
- Government Regulation Number 2 of 2018 concerning Standard Service Minimum.
- Kementerian PPN/Bappenas. (2019). *Narasi RPJMN VI 2020-2024*.
- Kementerian Sekretariat Negara. (2023). *Presiden Jokowi akan Terbitkan Inpres Pembangunan Jalan Daerah*. Retrieved on 10 Februari 2023 <https://www.presidentri.go.id/siaran-pers/presiden-jokowi-akan-terbitkan-inpres-pembangunan-jalan-daerah/>.
- Law Number 33 of 2004 concerning the Fiscal Balance Between the Central Government and Local Government.
- Law Number 38 of 2004 concerning Roads.
- Law Number 23 of 2014 concerning Local Government.
- Law Number 27 of 2014 concerning the State Budget for Fiscal Year 2015.
- Law Number 14 of 2015 concerning the State Budget for Fiscal Year 2016.
- Law Number 18 of 2016 concerning the State Budget for Fiscal Year 2017.
- Law Number 17 of 2017 concerning the State Budget for Fiscal Year 2018.
- Law Number 12 of 2018 concerning the State Budget for Fiscal Year 2019.

Law Number 12 of 2022 concerning Fiscal Relation Between the Central and Local Government.

Law Number 2 of 2022 concerning Second Amendment of Law Number 38 Year 2004 concerning Roads.

Manshur, A. (2020). Reviewing Specific Grant in 2015-2019 Period: Consistency and Quality Matters. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 4(3), 270–285. <https://doi.org/10.36574/jpp.v4i3.122>

Ng, C. P., Law, T. H., Jakarni, F. M., & Kulanthayan, S. (2019). Road infrastructure development and economic growth. *IOP Conference Series: Materials Science and Engineering*, 512(1). <https://doi.org/10.1088/1757-899X/512/1/012045>

Nurkholis, P. (2022). KAJIAN PENYUSUNAN INDIKATOR IMMEDIATE OUTCOME DANA ALOKASI KHUSUS BIDANG: INFRASTRUKTUR. www.kompak.or.id

Pambudi, A. S., Hidayati, S., & Pramujjo, B. (2022). Analisis Permasalahan Pembangunan Infrastruktur Jalan di Provinsi Papua Barat. *JIAP*, 7(2), 188–210. <https://doi.org/10.26905>

Presidential Regulation Number 43 of 2014 concerning Government Annual Plan Year 2015.

Presidential Regulation Number 2 of 2015 concerning National Medium Term Development Planning 2015-2019.

Presidential Regulation Number 60 of 2015 concerning Government Annual Plan Year 2016.

Presidential Regulation Number 131 of 2015 concerning Determination of Underdeveloped Regions Year 2015-2019.

Presidential Regulation Number 45 of 2016 concerning Government Annual Plan Year 2017.

Presidential Regulation Number 123 of 2016 concerning Technical Guidelines of Special Allocation Funds.

Presidential Regulation Number 79 of 2017 concerning Government Annual Plan Year 2018.

Presidential Regulation Number 5 of 2018 concerning Amendment of Presidential Regulation Number 123 of 2016 concerning Technical Guidelines of Special Allocation Funds.

Presidential Regulation Number 72 of 2018 concerning Government Annual Plan Year 2019.

Presidential Regulation Number 141 of 2018 concerning Technical Guidelines of Special Allocation Funds Year 2019.

Regulation of Minister of Finance Number 92 of 2015 concerning Implementation of Additional DAK for State Budget Fiscal Year 2015.

Regulation of Minister of Public Works and Housing Number 14 of 2010 concerning Standard Service Minimum of Public Works and Spatial Planning Sector.

Regulation of Minister of Public Works and Housing Number 1 of 2014 concerning Standard Service Minimum of Public Works and Spatial Planning Sector.

Regulation of Minister of Public Works and Housing Number 3 of 2015 concerning Technical Guidelines of Special Allocation Funds for Infrastructures.

Regulation of Minister of Public Works and Housing Number 47 of 2015 concerning Technical Guidelines of Special Allocation Funds for Infrastructures.

Regulation of Minister of Public Works and Housing Number 21 of 2017 Operational Guidelines of Special Allocation Funds for Infrastructures.

Regulation of Minister of Public Works and Housing Number 29 of 2018 concerning Technical Standards of Standard Service Minimum for Public Works and Spatial Planning.

Regulation of Minister of Public Works and Housing Number 2 of 2019 concerning Operational Guidelines for Special Allocation Funds for Public Works and Housing.

Regulation of Minister of Home Affairs Number 100 of 2018 concerning the Implementation of Standard Service Minimum.

Regulation of Minister of Public Works and Housing Number

Schick, A. (1998). *A Contemporary Approach to Public Expenditure Management*. Washington: The International Bank for Reconstructions and Development.

Wibowo, K., Muljarijadi, B., & Rinaldi, R. (2011). *Allocation Mechanism Of Equalization Fund In Indonesia: Current Condition And Alternative Proposals Of Specific Grant In Sub National Level*.