

Analysis of the Increase in Performance and Welfare Allowances for Researchers at the Indonesian Research and Development Institute

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Abstract

This research analyzes the performance allowance policy and welfare of ASN researchers at LIPI who have currently joined the National Research and Innovation Agency (BRIN) with a focus on their potential impact on productivity. Different from previous studies that highlighted well-being, this study evaluated the relationship between incentives and the number of publications on Google Scholar and Scopus using qualitative descriptive analysis. Data from 2012, 2015, 2019, and 2022 show an imbalance between incentives and productivity, where senior researchers receive larger increases in benefits even though their productivity does not increase proportionately. The results show that incentive policies are based more on the hierarchy of positions than the potential productivity of researchers. These results indicate that the current incentive policy is more strongly determined by job hierarchy than by actual scientific productivity. In conclusion, although the increase in performance allowances contributes to improving researchers' welfare, the policy has not yet fully functioned as an effective instrument for stimulating publication productivity. Therefore, a more balanced and performance-oriented incentive scheme is needed to better align welfare improvement with the goal of strengthening national research competitiveness.

INTRODUCTION

Improving the performance allowance and welfare of researchers at Indonesian research and development (R&D) institutions is very important for improving the quality of research and supporting Indonesia's global competitiveness (Afriana & Khoirunurrofik, 2024; Dimiyati et al., 2023; Hermanu et al., 2022; Kristanti & Saptono, 2023; Kumala & Khoiruddin, 2026). An adequate performance allowance policy for researchers is a key factor in increasing the productivity and quality of research in R&D institutions. Various literature on performance allowance or incentive policies shows that incentive structures and performance appraisal systems play an important role in shaping researchers' behaviors and strategic decisions. When the scoring system relies heavily on journal-based metrics, especially the Journal Impact Factor (JIF), it serves not only as an indicator of scientific quality but also as an incentive instrument that has a direct impact on decisions regarding academic careers. Studies have shown that the use of these metrics affects various aspects of career assessment, including promotion, recruitment, and resource allocation, and directs researchers to choose research topics that align with expected targets. However, other studies have also revealed that inaccuracies or the absence of relevant institutional incentives are often obstacles for researchers to engage in research that focuses on the impact and utilization of research results (Jessani et al., 2020). In line with these findings, some studies suggest that academic reward systems not only value

scientific visibility but also place greater appreciation on research that makes a tangible contribution to policy and practice, such as through citations in policy documents and patents. Such a reward system is considered to create more appropriate incentives for encouraging research that can provide real social and economic benefits (Astvansh & Fridmanski, 2023).

In many countries, performance-based research funding systems are introduced to create a more competitive environment and incentivize researchers to be more productive to increase the quantity and quality of publications. However, incentives and subsidies do not always result in the expected improvement in quality or impact (Tonta & Akbulut, 2020). Improving employee performance can be motivated through financial aspects in the form of salaries, bonuses, and raises, as well as non-financial aspects such as recognition of achievements (Vuong & Nguyen, 2022). Kim and Choi also found that increased wages can lead to higher worker productivity (Kim & Choi, 2018). Rashid and Rashid (2012) distinguish motivational factors between public- and private-sector employees. They categorize them into two groups: private-sector employees are more motivated by financial rewards, career development opportunities, and a supportive environment, whereas public-sector employees are more motivated by work experience and work–life balance. On the other hand, monetary rewards can also increase the motivation and performance of public-sector employees, as shown by Chinyio, Suresh, and Salisu (2018). However, Gunawan and Amalia (2015) found that the effect of wages on employee productivity is constant. Another result was obtained by George and van der Wal (2023), who found that performance-related pay (PRP) schemes have a positive and statistically significant effect on staffing and performance aspects in public-sector organizations. However, because the magnitude of this influence is relatively limited, PRP cannot be considered an instrument that directly and comprehensively improves performance. In addition, the impact of PRP on organizational performance was shown to be lower than its effect on individual variables, such as work motivation and job satisfaction. These findings suggest that PRP is more effective as a motivational incentive mechanism than as a primary means of improving performance outcomes.

In Indonesia, the management of public-sector employees—namely, the State Civil Apparatus (ASN)—is regulated under Law Number 5 of 2014 (Law Number 5/2014). ASN employees are entitled to receive compensation in the form of salaries, performance allowances, cost-of-living allowances, and facilities (Haerah, 2017). In accordance with Law Number 5/2014, such compensation is intended to increase productivity and ensure the welfare of ASN employees in accordance with their workload, responsibilities, and occupational risks. However, although Indonesia has implemented several policies to increase the research budget, such as the Research Budget Increase Policy and the Researcher Incentive Scheme, their implementation still faces several challenges, one of which is the alignment between the research budget and field-specific needs. Various literature shows that although effective incentive mechanisms play a significant role in increasing research productivity and innovation, a high workload can reduce researcher satisfaction and outcomes if it is not balanced with both financial and non-financial support (Ge et al., 2022; Ocampo et al., 2022; Prihantoro & Sutianingsih, 2025). In addition, studies show that incentives directly tied to researchers' performance can affect the orientation and output of research activities. Patent-based financial incentives, such as royalty-sharing schemes, have been shown to shape researcher behavior in research and invention activities, including a tendency to produce

potentially patentable outputs (Ouellette & Tutt, 2020). Furthermore, publication-based incentive policies also affect researchers' strategies in collaborating and producing scientific papers (Yuret, 2017). In the context of innovation, researchers' involvement in cross-border collaboration on invention activities correlates with better patent outcomes, suggesting that international collaboration is an important mechanism for strengthening innovation outputs relevant to the industrial sector (Drivas & Kaplanis, 2020). Researchers who feel valued and have adequate incentives are also more motivated to continue their research and contribute to technological development in strategic sectors such as health, energy, and agriculture. Thus, improving the welfare of researchers must be a top priority in planning Indonesia's research budget. A transparent and results-oriented performance-based incentive system will strengthen the quality of research produced, as well as support the development of innovations that positively impact society (Leydesdorff & Zawdie, 2016). Research by Etzkowitz and Leydesdorff (2019) also suggests that improving researchers' welfare involves not only performance allowances but also strengthening collaboration systems among research institutions, universities, and industry. Researchers who have access to adequate research funding and supporting facilities tend to have a greater ability to produce high-quality, applicable research. In addition, policies that integrate the public and private sectors in research will accelerate innovation implementation, ultimately enhancing national competitiveness in the global market.

The Indonesian Institute of Sciences (LIPI), as a research institution in Indonesia, was an agency responsible for fostering the functional position of researchers and overseeing national research and development, in accordance with the Decree of the Minister of State Apparatus Empowerment KEP/128/M.PAN/9/2004. Along with the need to increase research and innovation capacity, LIPI, which had long served as the primary research institution, underwent significant structural changes following the issuance of Law Number 11 of 2019 concerning the National System of Science and Technology, which mandated the establishment of the National Research and Innovation Agency (BRIN). Article 48 of Law Number 11 of 2019 stipulates that to carry out research, development, assessment, application, and integrated invention and innovation activities—including nuclear and space research—BRIN was formally established through Presidential Regulation Number 78 of 2021. BRIN represents the integration of five major ministries/agencies: the Ministry of Research and Technology, LIPI, the Agency for the Assessment and Application of Technology (BPPT), the Nuclear Energy Agency (BATAN), and the National Institute of Aeronautics and Space (LAPAN). As a result, all research and development functions previously distributed across various ministries and agencies, including LIPI, are now consolidated within BRIN.

By integrating various national research institutions into a more centralized body, BRIN faces the challenge of creating policies that optimize the performance of research personnel. One effort that can be undertaken is the provision of performance-based incentives or allowances, which not only encourage productivity but also improve human resource welfare. This policy is highly relevant in the context of budget efficiency, where funds can be allocated to enhance performance quality without neglecting employee welfare. In this regard, the government, as a public organization, can implement various human resource management policies aligned with principles of budget efficiency. One such policy is the provision of performance-based incentives or allowances, as regulated in the State Civil Service Agency

Regulation (2015).

Referring to this framework, performance not only serves as an administrative measurement instrument but also reflects the reciprocal relationship between the organization and its personnel. The success of performance-based incentive policies is greatly influenced by how organizations interpret the performance appraisal process and associated welfare conditions. Therefore, performance and welfare must be positioned as interrelated components in public-sector human resource governance.

Fundamentally, performance is a form of individual responsibility as a state apparatus, but it also functions as an organizational parameter for determining incentives. Performance achievement can be influenced by various factors, including the welfare of human resources within the organization (Najoan, Pangemanan, & Tangkere, 2018). Welfare can be defined as the provision of material and non-material goods that fulfill human needs (Alla, 2019). This aligns with indicators in the Human Development Index (HDI), one of which is purchasing power, influenced by income levels. Empirical results show that GDP per capita is positively associated with HDI, indicating that higher income levels correspond to higher human welfare, including increased purchasing power (Singh et al., 2025).

LIPI, prior to its integration into BRIN, began receiving performance allowances in 2012 (Presidential Regulation Number 120/2012), which were subsequently increased in 2015 (Presidential Regulation Number 123/2015) and again in 2019 (Presidential Regulation Number 40/2019). Following integration, Presidential Regulation Number 104 of 2022 was issued to regulate performance allowances for BRIN employees.

During the transition from R&D institutions to BRIN, researcher performance assessments continued to follow previous regulations, specifically LIPI Regulation Number 20 of 2019. Performance assessment uses a grading system based on Credit Scores (Angka Kredit—AK) and Minimum Performance Results (Hasil Kinerja Minimal—HKM). AK represents the unit value assigned to each activity item or the accumulated value of activity items required for career development. HKM refers to the minimum core activities that must be achieved as prerequisites for performance outcomes. One requirement for fulfilling HKM is the publication of at least one scientific paper in a journal appropriate to the researcher's rank or level.

A considerable body of research has examined performance and its relationship to employee benefits. In Russia, scientists working in the industrial sector experienced increased scientific publication output as a result of allowances, contributing to a more innovative organizational image (Rimskaya & Kranbihler, 2021). Similarly, special allowances and part-time salaries significantly improved the performance of academic staff at the Federal Polytechnic of Nasarawa (Ismail et al., 2020). These findings assume that when employees receive reasonable compensation, they are more motivated to achieve organizational goals. Motivation is higher when employees perceive that rewards align with expectations (Armstrong, 2015; Ismail et al., 2020).

Therefore, it is important to maintain and enhance the performance of researchers as key drivers in government-owned R&D environments. This study aims to examine the impact of increased performance allowances on the welfare of civil servants, particularly researchers, as well as adjustments to job classification levels for LIPI researchers who have transitioned into BRIN. The benefits of this study are both theoretical and practical. Theoretically, it contributes

to the literature on incentive policy, public-sector human resource management, and research productivity by providing empirical insights from the Indonesian research institution context. Practically, the findings are expected to inform policymakers in evaluating and redesigning performance allowance schemes for researchers, ensuring that such schemes not only improve welfare but also effectively promote scientific productivity, innovation, and national research competitiveness.

RESEARCH METHOD

This research used qualitative descriptive analysis to evaluate the relationship between researchers' incentive increase policies and their productivity trends during the period 2015–2020. This approach aimed to describe the historical pattern of changes in performance allowances based on job levels and to analyze how these policies affected the academic productivity of researchers at various levels. The data used in this study consisted of two main types: (1) incentive policy data, obtained from official regulations such as Presidential Regulations and institutional documents related to the amount of performance allowances at Indonesian Institute of Sciences (LIPI); and (2) researcher performance data, which included the number of publications in academic databases such as Google Scholar and Scopus. Core data included the nominal number of allowances based on Presidential Regulation Number 123 of 2015, Presidential Regulation Number 40 of 2019, and Presidential Regulation Number 104 of 2022, as well as data on changes in researcher position classes based on LIPI Regulation Number 10 of 2018 and National Research and Innovation Agency (BRIN) Regulation Number 4 of 2022. By combining these two types of data, this study aimed to identify whether increased incentives were aligned with increased academic productivity across different research position levels.

The analysis was carried out by comparing trends in allowance increases with changes in the number of scientific publications across various levels, namely Principal Expert Researchers, Associate Expert Researchers, Young Expert Researchers, and First Expert Researchers. By tracing the growth patterns of incentives and productivity from year to year, this study assessed whether the policies implemented encouraged improvements in research performance or merely maintained welfare without increasing scientific output. A descriptive method was used to interpret the data exploratorily, highlighting differences in allowance increases as well as changes in publication output between levels, which ultimately provided insights into the effectiveness of incentive policies in driving research productivity. With this approach, the research not only illustrated historical trends but also explored the alignment between incentive increases and academic achievement, thereby providing a critical perspective on the effectiveness of incentive schemes in Indonesian research institutions.

RESULTS AND DISCUSSION

In recent years, the government has carried out various policies in the context of implementing bureaucratic reform, one of which is by issuing a policy of increasing allowances for civil servants. The increase in allowances is not necessarily increased, but has gone through a position evaluation by applying the principles of fairness, objective, transparency, and consistency and based on the results of the evaluation of the description and assessment of the performance of employees as well as considering the financial capabilities of the State, and

obtaining validation from the minister in charge of government affairs in the field of state apparatus empowerment and bureaucratic reform (Regulation of the Head of BKN, 2015). It is hoped that with the increase in allowances, ASN as human resources in the government will be able to improve the welfare of employees, so as to have an impact on improving the performance of the employees themselves and supporting bureaucratic reform efforts.

The policy of increasing performance allowances for ASN is not a new policy in the government. This policy is constantly updated and evaluated from time to time. One of them is in the environment of research and development institutions such as LIPI which are currently integrated into BRIN. There are at least four job classes for researchers at LIPI that have different job classes in accordance with LIPI Regulation Number 10 of 2018 as stated below.

Table 1 Performance Allowance and Position Class of Researcher at LIPI

Position Level	Job Class	Performance Allowance
Principal Expert Researcher	13	IDR8,652,000,00
Associate Expert Researcher	11	IDR 5,183,000,00
Young Expert Researcher	9	IDR 3,781,000.00
First Expert Researcher	8	IDR 3,319,000.00

Source: Indonesian Institute of Sciences, 2018

The difference that appears in the class of researcher positions at LIPI is due to the hierarchical position level based on the AK owned. The assessment of AK for researchers is determined from two elements, namely the main elements and the supporting elements. The main elements that affect a researcher's credit score depend on the level of education they have, the large number of research, development, and/or assessment of science and technology, as well as professional development such as obtaining scientific awards. The supporting elements depend on the number of scientific dissemination carried out, membership in professional/scientific organizations, membership as an assessment team, experts and editors of popular scientific media, the number of technical report preparations, awards, and other scholarly degrees (LIPI Regulation Number 20, 2019). Later the AK and HKM obtained by the researcher will determine the position class, namely the First Expert Researcher with the III-a/III-b group 100-150 AK with the lowest position class of 8, followed by the Young Expert Researcher who occupies the 9th position class with the III-c/III-d group 200-300 AK, then the Associate Expert Researcher in the position class 12 with the Iva/IV-b/IV-c 400 group, 550, 700 AK, and in the highest position is the Main Expert Researcher in position class 14 with groups IV-d/IV-e 850-1050 AK. The class of position will affect the amount of compensation or income obtained by the researcher, including the amount of performance allowance in each class of position.

Presidential Regulation Number 123 of 2015 article 5 paragraphs 1 and 2 states that the performance allowance is calculated to be paid starting in May 2015 and will be given to researchers according to their position class every month by calculating performance achievements. The allowance provided is certainly outside of the basic salary, the nominal of

which depends on the ASN group owned by the researcher. Then, in 2019, there was a change in policy related to performance allowances which was marked by the issuance of Presidential Regulation number 40 of 2019. The change concerns an increase in the nominal allowance for each class of position.

Table 2 Changes in the Amount of LIPI Performance Allowance

Position Level	Job Class		Performance Allowance
	Originally	Become	Back Become
	13	14	IDR10,936,000,00
	11	12	IDR8,757,600,00
	9	9	IDR5,079,200,00
	8	8	IDR4,595,150,00
			Fixed
			Fixed

Source: Ministry of State Secretariat of the Republic of Indonesia, 2019; Indonesian Institute of Sciences, 2020

Policy changes regarding performance allowances within LIPI did not stop in 2019. A year later, the Government issued another policy that replaced LIPI Regulation number 10 of 2018, which is contained in LIPI Regulation number 21 of 2020 concerning Changes in Position Classes within Indonesian Science Institutes.

In table 2, it appears that the change in the class of researcher positions within LIPI only occurs in the functional positions of Principal Expert Researcher and Associate Expert Researcher, while the other two positions, namely Young Expert Researcher and First Expert Researcher have not changed. The change that occurred was an increase in the position class of Principal Expert Researcher from 13 to 14 and Associate Expert Researcher from 11 to 12. This change certainly also affects the nominal amount of performance allowance received, namely the difference of IDR 6,128,000 for Principal Expert Researchers and IDR 1,138,400 for Associate Expert Researchers.

Based on the data from the two tables that have been presented previously, it can be understood that from 2015 to 2020, there have been three policy changes related to performance allowances for researchers within LIPI. Indeed, in its development until 2022, the government also issued other regulations that regulate performance allowance policies for ASN as a result of the process of integrating LIPI into BRIN as stated in Presidential Regulation number 104 of 2022. However, the regulation does not change the data used in this study, namely related to the name of the functional position, position class, and nominal performance allowance obtained. The large difference in the nominal performance allowance of researchers in the LIPI environment will be presented in the following table to facilitate understanding.

Table 3 Differences in the Amount of Researcher Performance Allowance Due to Policy Changes from 2015-2020

Position Level	2015		2020	
	Job Class	Nominal Allowance	Job Class	Nominal Allowance
Key Members	13	IDR 8,562,000	14	IDR 17,064,000
Associate Member	11	IDR 5,183,000	12	IDR 9,896,000
Young Members	9	IDR 3,781,000.00	9	IDR5,079,200,00
First Member	8	IDR 3,319,000.00	8	IDR4,595,150,00

Source: Author's summary based on various rules

Referring to Table 3, it is recognized that four policy changes made by the government resulted in a significant difference in the nominal performance allowance for researchers between 2015 and 2019. The biggest difference can be seen in the position of Principal Expert Researcher which has increased the allowance by 99.3% from the previous nominal, then followed by the Associate Expert Researcher by 90.9%, while in the positions of Young Expert Researcher and First Expert Researcher are not too significant because they do not reach 50%, namely 34.3% and 49.4%. The difference in the significance of the nominal change in performance allowances for researchers at LIPI in 2015 and 2019 can be seen in the graph below.

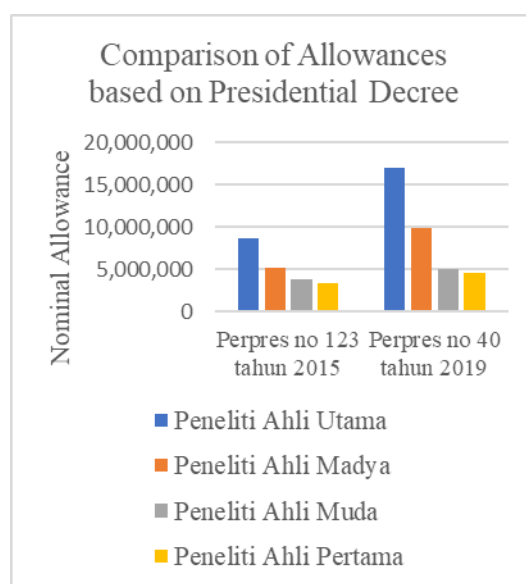


Figure 1 Comparison of the Significance of Nominal Changes in Researcher Performance Allowance at LIPI in 2015 and 2019

Source: Processed by the author based on Presidential Regulation No. 123/2015, Presidential Regulation No. 40/2019, and Indonesian Institute of Sciences (LIPI) data

There is a significant difference in the significance of changes in nominal performance allowances between the positions of Principal Expert Researcher and Associate Expert Researcher and Young Expert Researcher and First Expert Researcher due to the impact of three policy changes since 2015-2019. The impact can be different even though they go through the same policy because basically the first two positions go through two policy changes in the form of position class and nominal allowances, while the other two positions only experience one policy change, namely an increase in the nominal allowance, and not at the level of the

position class itself. The difference in the impact of these policies certainly also affected the significance of the change in position class for researchers within LIPI in 2015 and 2019, namely only the positions of Principal Expert Researcher and Associate Expert Researcher experienced changes, while Young Expert Researchers and First Expert Researchers were stagnant.

From the description above, it can be seen that the increase in incentive allowances for researchers at LIPI from 2015 to 2020 shows a strategy that targets a significant increase for senior researchers, especially Principal Expert Researchers and Associate Expert Researchers, with the largest increase occurring in the period 2019-2020 for the highest level. The scheme reflects policies aimed at retaining and motivating experienced researchers, in line with changes in job classifications and increased expectations of their performance. The next section will look at the potential productivity of researchers seen from the composition of the contributors to the number of publications by historical level.

Table 4 Publication Performance of Active Researchers

Level	Number of G-Scholar Publications		Change (%)
	2015	2019	2019
Principal Expert Researcher	226	423	87.17
Associate Expert Researcher	437	879	101.14
Young Expert Researcher	553	885	60.04
First Expert Researcher	169	228	34.91

Level	Number of Scopus Publications		Change (%)
	2015	2019	2019
Principal Expert Researcher	40	158	295.00
Associate Expert Researcher	89	404	353.93
Young Expert Researcher	129	459	255.81
First Expert Researcher	32	117	265.63

Source: Processed by the author from the SINTA portal

From Table 4, it can be seen that the policy of increasing performance allowances for researchers at LIPI shows a greater pattern of improvement for Principal Expert Researchers and Associate Expert Researchers, compared to the more junior levels. Principal Expert Researchers experienced an increase in allowances of 56.03% in the 2019–2020 period, while Associate Expert Researchers received a higher increase, namely 68.98%. However, when it comes to scientific productivity, the trend of increasing their publications is actually smaller compared to researchers at a lower level. Google Scholar publications for Principal Expert Researchers only increased by 87.17%, while publications on Scopus increased by 266.67%, a comparatively lower figure compared to the surge in the productivity of young researchers. Associate Expert Researchers also showed a similar pattern, with an increase in Google Scholar publications by 101.14%, while Scopus publications only increased by 106.52%, well below the more junior group.

In contrast, Young Expert Researchers and First Expert Researchers, who received smaller increases in benefits, actually experienced greater productivity increases. Google Scholar publications for Young Expert Researchers increased by 60.04%, while Scopus publications jumped by 353.93%, which is the highest increase among all levels. First Expert

Researchers also showed a significant spike in Scopus publications of 265.63%, although they received the smallest incentive increase in the hierarchy of positions. These findings indicate an imbalance between incentive schemes and scientific productivity, where younger researchers—who are relatively more active in publications—are not incentivized in proportion to their contribution to academic output.

This inequality raises the question of whether the current incentive structure is truly performance-based or prioritizes seniority. If the main objective of this policy is to increase the competitiveness of national research, then logically, incentives should be directed more towards the most productive group of researchers, not just those at higher levels. While an increase in performance allowances can have a positive impact on researcher well-being and retention, the effect of motivation on academic performance can be more optimal if the incentive scheme is designed in such a way that the greatest rewards are given to those who demonstrate the highest productivity. Thus, incentives not only increase researchers' income, but can also be a more effective policy instrument in encouraging scientific productivity and research innovation in Indonesia.

CONCLUSION

This study examined the impact of increased performance allowance policies on the welfare and productivity of researchers at the Indonesian Institute of Sciences (LIPI), now integrated into the National Research and Innovation Agency (BRIN), and found that while the policy significantly improved financial benefits for senior researchers—particularly Principal and Associate Expert Researchers—it did not lead to proportional gains in academic productivity. In contrast, junior researchers, including Young and First Expert Researchers, who received smaller incentive increases, demonstrated relatively higher growth in publication output, suggesting a misalignment between incentive structures and actual research performance. These findings imply that although enhanced benefits contribute to improved welfare and retention, their role in driving productivity remains limited when incentives are tied primarily to hierarchical position rather than measurable scientific output. Therefore, future research should explore alternative incentive models that integrate performance-based metrics—such as publication quality, societal impact, and innovation outcomes—while also examining non-financial motivators and institutional factors that may better explain variations in researcher productivity across different career stages.

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