







ORIGINAL

## Assessment and Analysis of Public Policy Impact: Contemporary Approaches and Future Application Opportunities

### Evaluación y análisis del impacto de las políticas públicas: Enfoques contemporáneos y futuras oportunidades de aplicación

Nataliia Stativka<sup>1</sup>  , Alla Nadtochii<sup>1</sup> , Tetiana Hordieieva<sup>2</sup> , Nina Petrukha<sup>3</sup> , Andrii Telendii<sup>4</sup> 

<sup>1</sup>Educational and Scientific Institute "Institute of Public Administration", V. N. Karazin Kharkiv National University. Kharkiv, Ukraine.

<sup>2</sup>Bohdan Khmelnytsky National University of Cherkasy, Department of Socio-Cultural Management, Art Management, and Social Work. Cherkasy, Ukraine.

<sup>3</sup>Kyiv National University of Construction and Architecture, Department of Management in Construction. Kyiv, Ukraine.

<sup>4</sup>Interregional Academy of Personnel Management, Kyiv, Ukraine.

**Cite as:** Stativka N, Nadtochii A, Hordieieva T, Petrukha N, Telendii A. Assessment and Analysis of Public Policy Impact: Contemporary Approaches and Future Application Opportunities. Management (Montevideo). 2025; 3:254. <https://doi.org/10.62486/agma2025254>

Submitted: 18-06-2024

Revised: 10-01-2025

Accepted: 10-06-2025

Published: 11-06-2025

Editor: Ing. Misael Ron 

Corresponding author: Nataliia Stativka 

#### ABSTRACT

**Introduction:** the article examines the methods of monitoring and evaluating the effectiveness of government programmes actively implemented in different regions to address modern socio-economic and environmental challenges. The topic's relevance is driven by the need to increase the transparency of public administration and the efficiency of public resources globally.

**Objectives:** the study's objectives included an assessment of the IEP programme effectiveness index and ROI, comparing the achieved and projected results by key indicators, and studying the prospects for introducing digital technologies into monitoring processes.

**Methods:** the study was based on the methods of comparative analysis and calculations of the programme effectiveness index (IEP) and return on investment (ROI). Their application allowed us to analyse the effectiveness of programmes of various scales using key social, economic, and environmental indicators.

**Results:** it was found that local initiatives with a narrow focus demonstrate a significantly higher efficiency IEP = 0,400 due to the rational use of limited resources. Instead, large-scale programmes ensure long-term systemic changes, but their efficiency index remains relatively low IEP = 0,00027 due to long implementation periods and multidirectional tasks. The article emphasises the importance of integrating digital technologies, in particular, automating monitoring processes and using artificial intelligence to analyse large amounts of data, which can improve the accuracy of evaluation and adaptability of government programme management.

**Conclusions:** the article outlines the need to introduce adaptive monitoring mechanisms that allow for the efficient management of government programmes and for achieving goals in the dynamic conditions of the modern world. Prospects for research include the development of new approaches to the evaluation of long-term programmes, taking into account the latest technological trends, and the integration of cloud platforms for transparent management and monitoring.

**Keywords:** Monitoring Of State Programmes; Management Efficiency; Efficiency Index; Return On Investment; Digitalisation; Adaptive Management; Cloud Technologies.

#### RESUMEN

**Introducción:** el artículo examina los métodos de seguimiento y evaluación de la eficacia de los programas

gubernamentales aplicados activamente en distintas regiones para hacer frente a los modernos retos socioeconómicos y medioambientales. La relevancia del tema viene dada por la necesidad de aumentar la transparencia de la administración pública y la eficiencia de los recursos públicos a nivel mundial.

**Objetivos:** los objetivos del estudio incluían una evaluación del índice de eficacia del programa IEP y del retorno de la inversión, comparando los resultados alcanzados y previstos por indicadores clave, y estudiando las perspectivas de introducción de tecnologías digitales en los procesos de supervisión.

**Métodos:** el estudio se basó en los métodos de análisis comparativo y cálculo del índice de eficacia del programa (IEP) y del rendimiento de la inversión (ROI). Su aplicación nos permitió analizar la eficacia de programas de diversas escalas utilizando indicadores sociales, económicos y medioambientales clave.

**Resultados:** se constató que las iniciativas locales con un enfoque limitado demuestran una eficiencia significativamente mayor IEP = 0,400 debido al uso racional de recursos limitados. En cambio, los programas a gran escala garantizan cambios sistémicos a largo plazo, pero su índice de eficiencia sigue siendo relativamente bajo IEP = 0,00027 debido a los largos periodos de ejecución y las tareas multidireccionales. El artículo subraya la importancia de integrar las tecnologías digitales, en particular, la automatización de los procesos de seguimiento y el uso de la inteligencia artificial para analizar grandes cantidades de datos, lo que puede mejorar la precisión de la evaluación y la adaptabilidad de la gestión de los programas gubernamentales.

**Conclusiones:** el artículo esboza la necesidad de introducir mecanismos de supervisión adaptables que permitan una gestión eficaz de los programas gubernamentales y la consecución de objetivos en las condiciones dinámicas del mundo moderno. Las perspectivas de investigación incluyen el desarrollo de nuevos enfoques para la evaluación de programas a largo plazo, teniendo en cuenta las últimas tendencias tecnológicas, y la integración de plataformas en la nube para una gestión y un seguimiento transparentes.

**Palabras clave:** Seguimiento de Programas Estatales; Eficiencia de la Gestión; Índice de Eficiencia; Rendimiento de la Inversión; Digitalización; Gestión Adaptativa; Tecnologías En Nube.

## INTRODUCTION

Methods of monitoring and evaluation of government initiatives are becoming critical in the management of public resources, given the growing global challenges. In different regions of the world, there is a significant variation in approaches to evaluating the effectiveness of programmes, which are shaped by economic development and social priorities. Foremost among all these indicators and systems, the \$1,2 trillion Build Back Better evaluation system in the United States is based on macroeconomic and social indicators of job creation and accessibility to infrastructure.

For conducting exhaustive assessments of the European Green Deal, the European Union has set up mechanisms to integrate data on reducing CO<sub>2</sub> emissions with investment activities in renewable energy and developing innovative technologies. The Digital India initiative, extending to more than a billion citizens, is an example of the successful operation of digitalisation approaches in public administration through big data analytics and automation of public services.

Local condition integration into the evaluation methodology allows flexible programme implementation and maximum adaptation to specific economic and social constraints. Public policy worldwide is witnessing systemic change into one that seeks to address socio-economic, energy, and environmental challenges through global cooperation. The Amazon Fund, financed by Norway and Germany, supports the preservation of tropical forests, playing a major role in balancing the global climate system.

The European Commission is financing intergovernmental infrastructure projects in the transport sector and the integration of energy markets under the TEN-T initiative. Implementing cooperation between developed and developing countries, such as that for projects developing green energy in Africa, balances local needs versus global goals. All these are giving rise to a new paradigm of public administration, wherein multilateral coordination, efficient resource pooling, and long-term strategic planning are given precedence.

Changes in monitoring government programmes are being propelled by the digitalisation of public administration and the explosive entry of cutting-edge technologies. Artificially intelligent analytic and monitoring processes can process billions of points of data in real-time, thereby allowing very rapid tracking of the progress of large-scale initiatives like Digital India and analytics-based decision-making. Cloud computing helps stakeholders access data, increasing the transparency of projects such as Build Back Better, which is based on an interactive platform for public monitoring.

Things allow for tracking energy consumption, traffic flow, or infrastructure conditions, which is the basis for evaluating the effectiveness of programmes such as the Urban Transport Development Programme in Indonesia. The use of these technologies not only improves the efficiency of monitoring but also creates new management

models that combine adaptability, responsiveness, and interactivity.

Monitoring and evaluation of the effectiveness of government programmes is one of the key topics of modern research aimed at optimising the use of resources and improving management efficiency. Research papers cover various issues, from social and economic to environmental aspects of programme implementation. The literature review includes an analysis of sources that cover various aspects of monitoring, evaluation and implementation of government initiatives.

Machuca-Vílchez *et al.*<sup>(1)</sup> examine the role of knowledge management in financial programmes targeting women in Peru, highlighting the progress and challenges of these initiatives. Kupiainen *et al.*<sup>(2)</sup> analyse policies to support entrepreneurship among older people in Finland, pointing out the lack of attention to this category in government programmes. Taylor<sup>(3)</sup> examines the collaboration between artists and government agencies in the United States, developing a framework for cultural policy collaboration. Hoshi *et al.*<sup>(4)</sup> analyse the impact of business support programmes in Japan during the COVID-19 pandemic, identifying their contribution to economic stabilisation.

Tutuk *et al.*<sup>(5)</sup> highlight the evaluation of medical technologies in support programmes for patients with rare metabolic diseases, which helps to increase access to quality treatment. Mehta *et al.*<sup>(6)</sup> examine the use of services for pregnant women in India, showing low uptake due to a lack of awareness of government programmes. Baco<sup>(7)</sup> analyses the comprehensive support programmes for indigenous peoples in the Philippines, highlighting the importance of integrating sociocultural aspects into policies. Salamah *et al.*<sup>(8)</sup> examine the outcomes of the PROLANIS programme in Indonesia for chronic disease management, which was adapted to the pandemic.

Mohammadzadeh *et al.*<sup>(9)</sup> examine government subsidies to health care financing, demonstrating their positive impact on access to health care. Abdallah *et al.*<sup>(10)</sup> analyse the participation of low-income people in publicly funded HIV testing programmes in the United States. Cruda *et al.*<sup>(11)</sup> examine the impact of government programmes on crime prevention, highlighting the importance of targeting different regions. Bueno *et al.*<sup>(12)</sup> propose using lotteries to select participants for government programmes, demonstrating new approaches to transparency.

Modern approaches to the assessment of government programme effectiveness emphasize the need to consider both contextual challenges and structural capabilities. Alekseieva *et al.*<sup>(13)</sup> assess business support initiatives implemented during wartime, concluding that programme success is closely tied to regional flexibility and institutional responsiveness, especially in sectors critical to national economic resilience. Bondarenko *et al.*<sup>(14)</sup> focus on the digital transformation of public administration, highlighting how informatization and integrated planning frameworks enhance state capacity to respond to complex, multidimensional threats - ranging from security to economic volatility. Byrkovych *et al.*<sup>(15)</sup> explore the role of state cultural and arts funding, presenting it not only as a social stabilizer but as a strategic instrument for sustainable national development amid globalization and geopolitical tension.

Miller *et al.*<sup>(16)</sup> examine the effectiveness of citizen interaction with government institutions through automated systems, highlighting their impact on public participation in government programmes. Suriyanti and Tanjung<sup>(17)</sup> analyse education development programmes in rural Indonesia, including projects to promote Quranic reading among local communities. Parvin *et al.*<sup>(18)</sup> examine how effectively government loans meet the investment needs of small enterprises in Bangladesh. Kant<sup>(19)</sup> researches government support programmes for small businesses in Ethiopia, determining their impact on marketing innovation.

Barati<sup>(20)</sup> examines open data programmes implemented by governments, focusing on information privacy issues. de Lima *et al.*<sup>(21)</sup> examine access to government support programmes for tuberculosis patients in Brazil, focusing on the role of healthcare professionals. Scheidt<sup>(22)</sup> analyses the policy frameworks of Salvador Allende and Hugo Chavez's governments, demonstrating their impact on the development of socialism and democracy. Kumar and Singh<sup>(23)</sup> examine the support for small enterprises through government initiatives, focusing on stimulating entrepreneurial growth.

Thus, the literature analysis demonstrates the diversity of approaches to monitoring and implementing government programmes. The research results emphasise the importance of a comprehensive analysis and the use of adaptive mechanisms to achieve the set goals, which is the basis for further improvement of evaluation methods.

The study aimed to determine the effectiveness of methods for monitoring and evaluating government programmes in different regions of the world and to analyse their impact on socio-economic, energy and environmental indicators. The study's objectives included an assessment of the IEP programme effectiveness index and ROI, comparing the achieved and projected results by key indicators, and studying the prospects for introducing digital technologies into monitoring processes. The practical significance of the work is to formulate recommendations for improving the mechanisms for evaluating government initiatives, including the integration of automated analysis systems, artificial intelligence and cloud platforms, which will ensure transparency and adaptability of management in the face of dynamic global challenges.

## METHOD

The article belongs to the category of descriptive research, combining a review of thematic studies and analysis of secondary information data. The research materials were based on primary sources of information - recent publications indexed in the leading scientific databases Web of Science and Scopus, as well as statistics from official sources. Keywords used for the search: “monitoring of state programmes, management efficiency, efficiency index, return on investment, digitalisation, adaptive management, cloud technologies”.

The criteria for exclusion and inclusion of scientific works and publications were spatial and temporal indicators and the level of reliability of information. Taking into account practical realities, the size of the sample of sources was considered appropriate, ensuring sufficient scientific and statistical power.

Several general scientific methods were used in the course of work on the article: analysis and synthesis - to identify the main contemporary theoretical concepts and scientific developments; comparison - to systematise existing approaches, define key concepts and criteria, and identify influential factors; structural-logical method - to develop practical proposals for optimisation.

The results and conclusions of the study were formed using the method of deduction and scientific abstraction. This made it possible to mentally depart from standards and consider the phenomenon under study in the context of the modern environment, which requires adaptability.

The study covers government programmes from the United States, the European Union, India, Brazil, Ukraine and Indonesia, allowing for comparisons across different economic and geographical contexts. The main criteria for evaluation are the achievement of key performance indicators, such as service coverage, CO<sub>2</sub> emissions reduction, or job creation. Particular attention is paid to cost-effectiveness, measured by IEP and ROI, and social impact, including citizen satisfaction. The study considers both the direct effect of the programmes (achievement of the stated goals) and the indirect effect (increased investment, improved quality of life).

A combined methodology is used to evaluate the effectiveness of government programmes, considering both the achievement of key indicators and financial profitability. The main indicator is the programme effectiveness index (IEP), which is calculated using the following formula:

$$IEP = \frac{\sum_{i=1}^n (W_i \frac{P_i}{T_i})}{B} \times 100\%$$

Where  $W_i$  is the indicator's weight  $p_i$  is the actual result for a particular indicator,  $T_i$  is the target value, and  $B$  is the total programme budget. In addition, the return on investment (ROI) formula is used for financial evaluation of effectiveness:  $ROI = ((EE - B) / B) \times 100\%$

EE is the programme's economic effect, which may include GDP growth, tax revenues, or saved resources. The research methodology entails programme analysis across varied fields: environment, infrastructure, digital, and social.

The European Green Deal programme, launched in 2019 with a total budget of €1 trillion aimed at achieving climate neutrality by 2050, has been chosen as the subject of this study. In the digital sphere, Digital India was selected and launched in 2015 with a budget of \$20 billion to build digital services and infrastructure. The infrastructure project was selected to be Build Back Better (USA), started in 2021 with a budget of \$1,2 trillion, mainly to modernise infrastructure, introduce green technologies, and create jobs. It should also mention the National Energy Saving Programme (Ukraine), an initiative from 2018 with a budget of \$500 million to reduce energy consumption in buildings. In addition, the environmental programme Amazon Fund (Brazil), launched in 2008 with a budget of \$1 billion to fight against deforestation, was selected. The study also included the Collaborative Care Medicaid Programme (New York, USA) launched in 2018 with a \$2,3 billion budget for 2021-2025 to integrate mental health care into healthcare facilities and the global UN 2030 Agenda Sustainable Development Goals initiative to eradicate poverty and protect the environment. Other infrastructure initiatives include the Urban Transport Development Programme (Indonesia), launched in 2020, with a budget of \$1,5 billion to expand the public transport system.

## RESULTS

Seeking to grant aid and support to vulnerable sections, the contemporary focus of many states in 2023-2024 has now turned toward stability and innovation in sectors. Rapid digitalisation, necessitated by the transfer to remote work and study, has birthed several initiatives like Digital India, with the bulk of public sector services being digitised on a large scale. Likewise, in the EU, programmes along the lines of the European Green Deal show that economic transformation toward sustainability and energy independence is also an apt reference given the existing global geostrategic realities. The other implementation modalities, except project offices, depend on their area of choice. Environmental programmes under the Amazon Fund in Brazil are actively fundraising and attracting international support from various donors in the financing, including Norway and

Germany's governments. Conversely, infrastructure projects, such as Build Back Better in the USA, concentrate mainly on local funding and special government financing. Further, transport-oriented programmes like the Urban Transport Development Programme in Indonesia showcase great integration between the public and private sectors.

This approach allows for more excellent project implementation capabilities by bringing in the expertise of private companies while maintaining government control. In this context, the wide range of government programmes demonstrates the desire to balance national priorities, local needs, and global goals.

The parameters of the state programmes under study are presented in Table 1.

**Table 1.** Parameters of government programmes

Programme	Country/Region	Year of launch	Budget	Main objective	Duration of implementation
European Green Deal	European Union	2019	€1 trillion	Achieving climate neutrality	By 2050
Digital India	India	2015	\$20 billion	Digitalisation of public services	Permanent
Build Back Better	USA	2021	1,2 trillion	Modernising the infrastructure	By 2030
National energy saving programme	Ukraine	2018	\$500 million	Energy efficiency of buildings	By 2025
Amazon Fund	Brazil	2008	1 billion	Protecting the rainforest	Permanent
Collaborative Care Medicaid Programme	USA (New York)	2018	2,3 billion	Integration of mental health care	2021-2025
Urban Transport Development Programme	Indonesia	2020	1,5 billion	Expanding the public transport system	By 2030

Source: authors' compilation on World Bank<sup>(24)</sup>

Based on the data presented, the programmes show considerable variability in their budgets and priorities. The most significant funding programme is the European Green Deal, which is focused on the long-term perspective and addressing global climate issues. At the same time, the National Energy Saving Programme or Digital India programmes focus on solving specific regional problems with a shorter implementation time and budget. Interestingly, the programmes include those focusing on sustainable development (Amazon Fund) and those integrating health or infrastructure needs, such as the Collaborative Care Medicaid Programme or the Urban Transport Development Programme. These programmes represent different approaches to development, allowing us to see their potential impact in the short and long term.

We will calculate each programme and obtain the following results based on the implemented efficiency formulas (for example, we provide a calculation for the National Energy Saving Programme):

$$IEP = (0,5 \times 80 / 100) / 500 \times 10^6 = (0,5 \times 0,8) / 500 \times 10^6 = 0,4 / 500 \times 10^6 = 0,0008 \times 10^6 = 0,400$$

We will perform similar calculations for all other programmes and record the results in table 2.

**Table 2.** Comparative analysis of the government programme effectiveness index by key indicators

Programme	Budget (million USD)	Target achieved (P,%)	Target (T,%)	Weight (W <sub>i</sub> )	IEP
European Green Deal	1000000	90	100	0,3	0,00027
Digital India	20000	75	100	0,2	0,00750
Build Back Better	1200000	85	100	0,4	0,00028
National energy saving programme	500	80	100	0,5	0,40000
Amazon Fund	1000	70	100	0,6	0,04200
Collaborative Care Medicaid Programme	2300	78	100	0,4	0,01357
Urban Transport Development Programme	1500	82	100	0,3	0,01640

The calculations show that programmes with smaller budgets and a clear focus on achieving specific goals have a higher efficiency index. The National Energy Saving Programme in Ukraine has the highest IEP (0,400), which is explained by its low cost (\$500 million) and high target achievement (80 % of the target). Similarly, Digital India, due to its relatively small budget (\$20 billion) and 75 % target achievement, showed a high-efficiency index (0,0075).

Programmes with large budgets, such as the €1 trillion European Green Deal and the \$1,2 trillion Build Back Better, had low IEPs of 0,00027 and 0,00028, respectively. These figures can be explained by the scale of

the programmes, which cover numerous areas, as well as the extended implementation period. The European Green Deal is focused on achieving climate neutrality by 2050, which stretches investments over time.

There is mention of environmental programmes supporting the assessment. The Amazon Fund (Brazil), with a budget of \$1 billion, showed a considerable efficiency index (0,042), which suggests that funds were rationally utilised in addressing particular environmental matters such as protecting tropical forests.

Overall, the analysis shows that determining IEP works based on budget size and some degree of goal achievement. In general, more focused smaller projects tend to perform much better than large-scale initiatives that undertake huge investments and have long lead times.

For a more comprehensive assessment of programmes, it is advisable to calculate the return on investment (ROI), which reflects how well the programme pays off financially. Let's make the calculation using the data for Amazon Fund:

$$ROI = (1500 - 1000) / 1000 \times 100 \% = 500 / 1000 \times 100 \% = 50 \%$$

We calculated ROI for all other programmes in the same way. The data is presented in figure 1. The results show that programmes with a clear focus and local goals have a better efficiency index than large-scale initiatives.

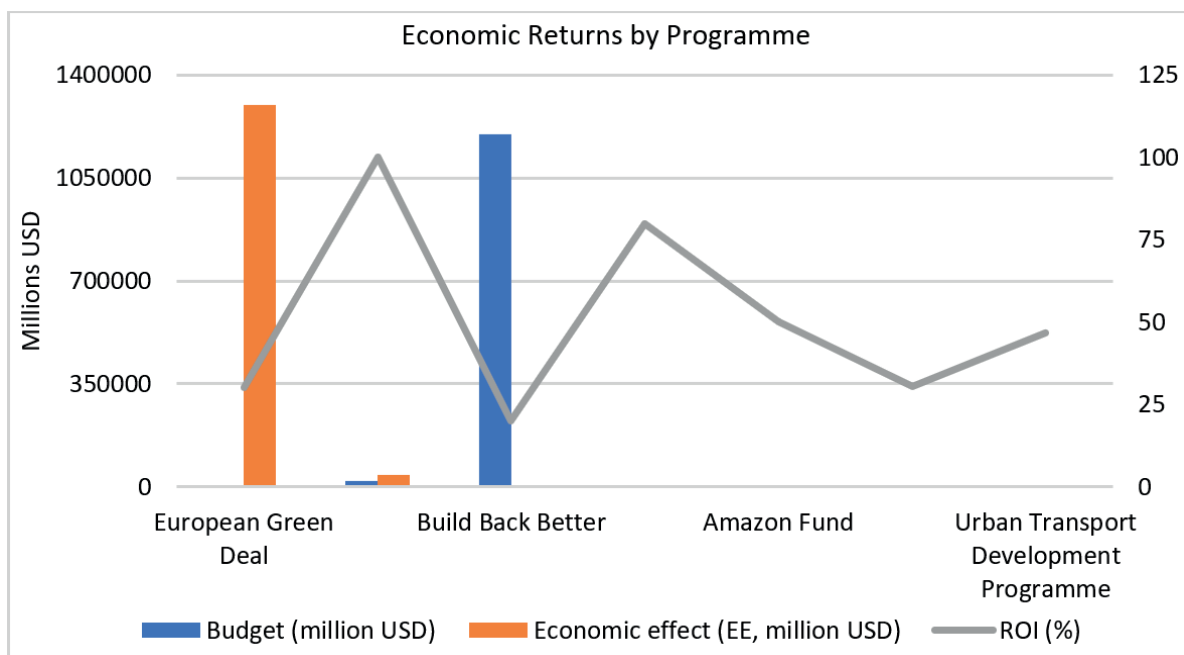


Figure 1. Economic Efficiency of State Programmes Based on ROI, millions of dollars

The Digital India programme has the highest ROI (100 %) thanks to its low costs and significant economic benefits from digitalisation. Programmes with an environmental and social focus, such as the National Energy Conservation Programme (80 %) and the Amazon Fund (50 %), demonstrate high returns. Large-scale programmes such as the European Green Deal and Build Back Better, although they have a lower ROI (30 % and 20 %, respectively), provide a long-term impact on the economy and the environment.

Government programmes implemented in different countries have demonstrated a significant impact on social and environmental aspects. Digital India has provided access to digital services for more than 1,2 billion people, including creating more than 10 million jobs in the IT and e-government sectors. Build Back Better in the United States has contributed to social change, as the programme aims to create around 5 million jobs by 2030 through infrastructure modernisation. Energy costs for thousands of households have been reduced through the National Energy Saving Programme. Moreover, this, in turn, has enhanced household satisfaction and quality of life. Keyly, the environmental programmes of the European Green Deal and the Amazon Fund affect environmental conditions worldwide. The contributions made by the European Green Deal have resulted in a 12 % reduction in CO<sub>2</sub> emission in the EU vis-a-vis 2019 levels, with expectations of attaining a 55 % reduction by 2030. The Amazon Fund protects more than 30 million hectares of tropical forests, promoting biodiversity conservation and stabilisation of the climate. Therefore, the showpiece of these programmes is that sustainable development becomes imperative for integrating social and environmental issues into governmental initiatives. The social and environmental impacts of these programmes are summarised in table 3.

**Table 3.** Social and environmental results of the programmes

Programme	Social results achieved, 2023	Social results, forecast until 2030	Environmental results achieved, 2023	Environmental results, forecast to 2030
European Green Deal	2 million jobs	5 million jobs	Reduced CO <sub>2</sub> emissions by 12 %	Reduced CO <sub>2</sub> emissions by 55 %
Digital India	10 million jobs	15 million jobs	-	Save up to 50 % on paper
Build Back Better	2 million jobs	5 million jobs	Investments in environmental infrastructure	Increase in the use of renewable energy by 40 %
National energy saving programme	500 thousand energy-efficient buildings	1 million energy-efficient buildings	Reduced energy consumption by 20 %	Reduced energy consumption by 40 %
Amazon Fund	30 million hectares of tropical forests protected	50 million hectares of forests protected	-	Conservation of biodiversity
Collaborative Care Medicaid Programme	1 million patients covered	Covered 3 million patients	-	-
Urban Transport Development Programme	10 million passengers attracted	25 million passengers attracted	Reduction of emissions from transport by 5 %	Reduced emissions by 20 %

Source: authors' compilation based on OECD data<sup>(25)</sup>

A comparison of social and environmental outcomes shows that programmes with a clear focus on sustainability have a comprehensive impact. Through a combination of environmental and social investments, the European Green Deal has made significant progress in job creation and reducing CO<sub>2</sub> emissions. Similarly, Digital India is promoting widespread digitalisation, which creates jobs and helps reduce the use of resources such as paper. Programmes that focus on highly specialised aspects, such as the Amazon Fund, significantly contribute to ecosystem and biodiversity conservation, which has a global impact.

At the same time, the results indicate the programmes' significant long-term potential. Build Back Better and the Urban Transport Development Programme are projected to significantly reduce CO<sub>2</sub> emissions by 2030 through the development of environmental infrastructure and the promotion of public transport.

## DISCUSSION

The results on the effectiveness of government programmes confirm the current literature's findings, particularly the impact of a clear programme focus on their effectiveness. Al Shukaili *et al.*'s<sup>(26)</sup> findings on job creation due to government financial support in Oman are consistent with our findings on the ROI of the Digital India programme (100 %), which demonstrated significant economic impact through large-scale investments in digitalisation. Hedley *et al.*<sup>(27)</sup> highlight the importance of collaboration between governments and NGOs, which supports our recommendations for integrating the private sector into programmes like Build Back Better. The focus on improving data transparency and quality analysed by Najafabadi and Cronemberger<sup>(28)</sup> in the context of the New York City food protection programme correlates with our findings on the value of using cloud technologies in monitoring.

Salamah *et al.*<sup>(29)</sup> demonstrate the impact of the COVID-19 pandemic on chronic disease management in Indonesia, highlighting the need for government programmes to adapt to the new environment. This is consistent with our findings on the importance of adaptive monitoring mechanisms. The findings of Fleta-Asín and Muñoz,<sup>(30)</sup> which point to the importance of investment volume in public-private partnership projects, confirm our findings of low IEPs of large programmes such as the European Green Deal.

Giorcelli<sup>(31)</sup> reviews e-governance elements in Europe and outlines some of the advantages of digital technologies accentuated in our perspective, especially when viewed through artificial intelligence. Daradar and Atutubo<sup>(32)</sup> dissect e-governance implementation in public schools in the Philippines, identifying the importance of assimilating digital technologies in public administration. The authors state that social media can create awareness about government programmes, thus supporting our conclusion regarding the need to involve the public in monitoring, including through open data and cloud platforms.<sup>(33)</sup> Also, as Finlay *et al.*<sup>(34)</sup> noted, strengthening communication and information systems targeting vulnerable groups in large programmes such as Build Back Better is imperative.

This demonstrates the limitations of large programmes with a multi-component structure that we have identified in our research. Daradar and Atutubo<sup>(32)</sup> highlight the importance of adaptive approaches to programme implementation, consistent with our findings on the importance of technology and automation in management.

Thus, the results of our study are supported by numerous contemporary works that emphasise the importance of adaptability, technological integration and transparent monitoring to ensure the effectiveness of government programmes. However, future research should examine the long-term impact of digital technologies on

programme effectiveness and the role of civic participation in evaluating government initiatives.

## CONCLUSIONS

The study confirmed that the effectiveness of government programmes depends not only on the size of their budget but also on the strategic approach to resource allocation and achievement of specific goals. The National Energy Saving Programme (Ukraine) demonstrated the highest efficiency index of 0,400 due to its narrow focus on energy efficiency and rational use of the budget. At the same time, large-scale initiatives, such as the European Green Deal, with a massive budget of €1 trillion and a long implementation period, have a lower IEP of 0,00027. This is due to the complexity of integrating numerous areas and long-term expectations of results, such as a 55 % reduction in CO<sub>2</sub> emissions by 2030. The high ROI of the Digital India (100 %) and National Energy Conservation Programme (80 %) programmes demonstrates that investments in highly specialised initiatives can bring significant economic benefits.

The aim of the study was to assess the effectiveness index of the IEP program and ROI, compare actual and projected results against key indicators, and explore the prospects for introducing digital technologies into monitoring processes. The findings also show that the impact of the programs goes beyond economic returns. The results confirm the importance of a holistic approach to evaluating government programs considering social, environmental, and economic aspects. The data underscores the importance of monitoring the actual progress of programmes, as regular analysis allows for timely adaptation of strategies and maximises efficiency. Potential lies in the development of new approaches to evaluating long-term programmes and integrating cloud platforms for transparent management and monitoring.

## REFERENCES

1. Machuca-Vílchez JA, Ramos-Cavero MJ, Cordova-Buiza F. Knowledge management in financial education in Peruvian government programmes focused on women: Progress and challenges. *Knowledge and Performance Management* 2023;7(1):1-14. [https://doi.org/10.21511/kpm.07\(1\).2023.01](https://doi.org/10.21511/kpm.07(1).2023.01)
2. Kupiainen P, Komulainen K, Eriksson P, Rätty H. Is older entrepreneurship being silenced? A policy analysis of Finnish government programmes. *Entrepreneurship and Regional Development* 2023;35(9-10):746-761. <https://doi.org/10.1080/08985626.2023.2225035>
3. Taylor JK. Artists, government and cross-sector collaboration: A guiding framework of US-based artists in residence in government programmes. *Cultural Trends* 2023;32(5):513-531. <https://doi.org/10.1080/09548963.2022.2083944>
4. Hoshi T, Kawaguchi D, Ueda K. Zombies, again? The COVID-19 business support programmes in Japan. *Journal of Banking and Finance* 2023;147:106421. <https://doi.org/10.1016/j.jbankfin.2022.106421>
5. Tutuk V, Nazarkina V, Babenko M, Nemchenko A, Zhakipbekov K. Assessment of medical technologies in the formation of government programmes to assist patients with rare metabolic diseases. *ScienceRise: Pharmaceutical Science* 2023;2023(5):99-108. <https://doi.org/10.15587/2519-4852.2023.290218>
6. Mehta BS, Alambusha R, Misra A, Mehta N, Madan A. Assessment of utilisation of government programmes and services by pregnant women in India. *PLoS ONE* 2023;18(10):e0285715. <https://doi.org/10.1371/journal.pone.0285715>
7. Baco IV. Comprehensive government programmes for indigenous peoples in the Philippines. *International Journal of Advanced and Applied Sciences* 2023;10(6):89-99. <https://doi.org/10.21833/ijaas.2023.06.011>
8. Salamah S, Khafiyya AN, Ramadhani R, Arfiana MR, Syamsuri I, Faizah NN, ... Alkaff FF. Outcomes of the Indonesian Chronic Disease Management Programme (PROLANIS) in Patients with Hypertension During the COVID-19 Pandemic in Rural Areas: A Preliminary Evaluation Study. *Medical Science Monitor* 2023a;29:e939797. <https://doi.org/10.12659/MSM.939797>
9. Mohammadzadeh Y, Sheikhmali A, Yahyavi Dizaj J, Mosadeghrad AM, Yusefzadeh H, Refah Kahriz A. The impact of government subsidy programmes on equity in health financing. *Cost Effectiveness and Resource Allocation* 2023;21:54. <https://doi.org/10.1186/s12962-023-00460-w>
10. Abdallah I, Carree T, Dakutis P, Shu F, Oraka E. The Role of Government-Funded Assistance Programmes on HIV Testing Among Poor U.S. Adults. *Health Education and Behaviour* 2023;50(1):18-23. <https://doi.org/10.62486/agma2025254>

org/10.1177/10901981211045925

11. Cruda KA, V., Dellomes NC, Matao JA, Cubillo JB. Assessing Crime Prevention through Government Programmes. *Journal of Legal Subjects* 2023;32:23-26. <https://doi.org/10.55529/jls.32.23.26>

12. Bueno N, Nunes F, Zucco C. Benefits by Luck: A Study of Lotteries as a Selection Method for Government Programmes. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4411082>

13. Alekseieva K, Maletych M, Ptashchenko O, Baranova O, Buryk Z. 2023; State business support programs in wartime conditions. *Economic Affairs (New Delhi)* 2023;68(1):231-242. <https://doi.org/10.46852/0424-2513.1s.2023.26>

14. Bondarenko S, Bratko A, Antonov V, Kolisnichenko R, Hubanov O, Mysyk A. Improving the State system of strategic planning of national security in the context of informatization of society. *Journal of Information Technology Management* 2022;14:1-24. <https://doi.org/10.22059/jitm.2022.88861>

15. Byrkovych T, Denysiuk Z, Gaievska L, Akimova L, Prokopenko L, Akimov O. State policy of cultural and art projects funding as a factor in the stability of state development in the conditions of globalization. *Economic Affairs (New Delhi)* 2023;68(1):199-211. <https://doi.org/10.46852/0424-2513.1s.2023.23>

16. Miller SM, Song M, Keiser LR. The effect of human versus automated interaction on willingness to participate in government programmes: The role of representation. *Public Administration* 2023;101(4):1349-1366. <https://doi.org/10.1111/padm.12879>

17. Suriyanti S, Tanjung M. Village Government Programmes in Developing Qur'an Reading in Bulungihit Village, Marbau Sub-district. *Jurnal Pamator: Jurnal Ilmiah Universitas Trunojoyo* 2023;16(3):549-563. <https://doi.org/10.21107/pamator.v16i3.21657>

18. Parvin MT, Birner R, Nahar A. How well does government microcredit serve the investment needs of small and medium enterprises? An impact analysis on handloom weavers in Bangladesh. *South Asian Journal of Business Studies* 2023;12(2):242-268. <https://doi.org/10.1108/SAJBS-07-2020-0260>

19. Kant S. Meta Analysis of Marketing Innovation on Firm's Performance of Small Medium Enterprises with the Moderating effect of Government Support Programme: In case of Selected Sub-Cities of Addis Ababa, Ethiopia. *OPSearch: American Journal of Open Research* 2023;2(2):152-164. <https://doi.org/10.58811/opsearch.v2i2.41>

20. Barati M. Open Government Data Programmes and Information Privacy Concerns: A Literature Review. *EJournal of EDemocracy and Open Government* 2023;15(1):73-123. <https://doi.org/10.29379/jedem.v15i1.759>

21. de Lima HSB, Sodré VRD, Souza CAA, Cardoso MD, Gonçalves CCM, Nogueira LMV, ... Maciel ELN. Access of people with pulmonary tuberculosis to government programmes: Primary Care professionals' perceptions. *Revista Brasileira de Enfermagem* 2023;76(Suppl 2). <https://doi.org/10.1590/0034-7167-2022-0716>

22. Scheidt E. Socialism and democracy in the government programmes of Salvador Allende and Hugo Chávez. *Estudos Ibero-Americanos* 2023;49(1):e42418. <https://doi.org/10.15448/1980-864X.2023.1.42418>

23. Kumar S, Singh P. An Analysis of Government Support Programmes for Small Business Development and Growth. *Scholedge International Journal of Business Policy Governance* 2023;10(2):8. <https://doi.org/10.19085/sijbpg100201>

24. World Bank. GlobalGovernanceProgramme. [Internet]. 2024 [cited 29 May 2025]; Available in: <https://thedocs.worldbank.org/en/doc/bc4d7580e7ed8bb430153cea939663cb-0060052021/original/ggp-program-doc-v4.pdf>

25. OECD. Open Government for Stronger Democracies: A Global Assessment. OECD Publishing, Paris, 2023. <https://doi.org/10.1787/5478db5b-en>

26. Al Shukaili AM, Al Kindi K, Kassim NM, Ahmed Z, Al Hosni K. Can government financial support enhance job creations: insights from Oman. *Journal of Science and Technology Policy Management* 2023;14(5):807-829.

<https://doi.org/10.1108/JSTPM-07-2021-0100>

27. Hedley D, Hedley DFE, Walkowiak E, Bury SM, Spoor JR, Shiell A. Cost-benefit analysis of a non-governmental organisation and Australian government collaborative supported employment programme for autistic people. *Autism* 2023;27(5):1377-1390. <https://doi.org/10.1177/13623613221138643>

28. Najafabadi MM, Cronemberger FA. Systemic effects of an open government programme on data quality: the case of New York State's Food Protection programme area. *Transforming Government: People, Process and Policy* 2023;17(2):192-203. <https://doi.org/10.1108/TG-11-2021-0194>

29. Salamah S, Ramadhani R, Arfiana MR, Syamsuri I, Nugraha D, Illavi F, ... Alkaff FF. Impact of the COVID-19 pandemic on the outcomes of Indonesian chronic disease management programme. *Electronic Journal of General Medicine* 2023b;20(6):em541. <https://doi.org/10.29333/ejgm/13661>

30. Fleta-Asín J, Muñoz F. When bigger is better: Investment volume drivers in infrastructure public-private partnership projects. *Socio-Economic Planning Sciences* 2023;86:101473. <https://doi.org/10.1016/j.seps.2022.101473>

31. Giorcelli M. Closing the productivity gap with the US: Causes and consequences of the productivity programme in Western Europe. *Manchester School* 2024;92(4):426-442. <https://doi.org/10.1111/manc.12473>

32. Daradar MB, Atutubo VP. E-government Programme Implementation in Public Elementary Schools in Sorsogon, Philippines. *Jurnal Pendidikan Progresif* 2023;13(2):669-681. <https://doi.org/10.23960/jpp.v13.i2.202340>

33. Roifatul Lailin U, Reta Kusumawijayanti A, Dyan Nofa Harumike Y, Lailatus Saadah D. Use of Instagram Social Media as Blitar City Government Branding Programme (Rt Keren Case Study Programme, Bendogerit Village). *International Journal of Science, Technology Management* 2023;4(6):1713-1717. <https://doi.org/10.46729/ijstm.v4i6.1012>

34. Finlay B, Wittevrongel K, Materula D, Hébert ML, O'Grady K, Lach LM, ... Zwicker JD. Pan-Canadian caregiver experiences in accessing government disability programmes: A mixed methods study. *Research in Developmental Disabilities* 2023; 134:104420. <https://doi.org/10.1016/j.ridd.2022.104420>

## FINANCING

The authors did not receive financing for the development of this research.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

## AUTHORSHIP CONTRIBUTION

*Conceptualization:* Alla Nadtochii.

*Data curation:* Tetiana Hordieieva.

*Formal analysis:* Nina Petrukha.

*Research:* Nina Petrukha.

*Methodology:* Nataliia Stativka.

*Project management:* Andrii Telendii.

*Resources:* Tetiana Hordieieva, Andrii Telendii.

*Software:* Nina Petrukha.

*Supervision:* Tetiana Hordieieva.

*Validation:* Andrii Telendii.

*Display:* Andrii Telendii.

*Drafting - original draft:* Nataliia Stativka.

*Writing - proofreading and editing:* Alla Nadtochii.