

Assessing Community Involvement and the Achievement of Sustainable Development Goals in APPGM-SDG Sarawak North Solution Projects

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Abstract

Sarawak North conducted impact assessments on 18 solution projects encompassing five parliamentary constituencies. The projects, implemented by the Solution Providers, involved eight Sustainable Development Goals (SDGs) projects enhance development in specific areas. Therefore, the objectives of this study were: 1) to determine the involvement of the community in the solution projects in Sarawak North, 2) to analyse the impact of solution projects on beneficiaries and stakeholders, and 3) to analyse the impact on SDGs in relations to targets and indicators in Sarawak North. This study utilised a qualitative approach to data collection and analysis comprised of (i) document analysis, (ii) focus group discussion (FGD), and (iii) site visits. This evaluation revealed that 500 participants, from teenagers to the elderly were involved in the solution projects. In terms of gender involvement, women were seen to be more active, indicated by a total of 80.4% participation in projects in North Sarawak and the score value of five contributed by Y22-SP090, Y22-SP023, Y22-SP062 and Y22-SP187. The average score of projects evaluated in this assignment is 3.5, categorised as high-level. This shows that the solution project significantly impacted the lives of the people involved, especially in improving the quality of education, with a mean score of 4.2 and a knowledge dimension of 3.8. In conclusion, development projects awarded to local communities that need economic improvement must be meticulously planned to help in the community's way of life practices in the future.

1. Introduction

Development, in general, is a process of improvement that exists positively in a community's living environment. It is evaluated in terms of physical progress and infrastructure, economy, environment, society, and demographics. However, these development responsibilities cannot be solely achieved based on the approach, procedures, and implementation planning the development framework has prepared; it also requires the

awareness and acceptance of the community receiving the development. To ensure that the development is accepted and maintained well, an important and necessary process is to provide services learning (Abd Rahman et al., 2023) and technical and vocational education training (TVET) so that the importance of the development has a practical impact on the recipient. Understanding the acceptance of development projects among recipient communities is necessary to ensure that every development is based on the Sustainable Development Goals (SDG) as a reference to an integrated framework to achieve human, social, and environmental development objectives. Therefore, formulated guidance using SDGs that should include 17 goals with 169 targets and 232 specific indicators (Moyer & Hedden, 2020) is an integrated framework for examining the success of the development.

Development challenges need to be monitored for every country, including Malaysia, to ensure that the development process does not negatively impact the lives of those who receive it. In overcoming this challenge, it is essential to increase the level of education that will eventually become a fossil in the development process involving financial knowledge, education, skills, and the application of the latest technology to the society of a country (Aziman et al., 2023). Therefore, to achieve the goal of sustainable development, the All-Party Parliamentary Group Malaysia on the Sustainable Development Goals (APPG-SDG) is one of the agencies responsible for implementing the SDGs in Malaysia, involving 195 projects throughout Malaysia for 2022 (Cohort 3). Of that number, only 18 solution projects were implemented in Sarawak North, which covers 17 parliamentary constituencies. In the development process in the northern area of Sarawak, several infrastructure expansion projects, such as roads and hydroelectric dams, are implemented to increase economic growth (Alamgir et al., 2020). However, most rural areas of the northern parliament of Sarawak do not have good roads and facilities to reach every area of the population. The delimitation of voting divisions according to the total population causes an imbalance in infrastructure development and human development in parliamentary constituencies whose population is widely dispersed, especially in rural areas. Therefore, it is essential to motivate daily management decisions among stakeholders in the dynamic context of modern economic development that can be used in current development plans and programs (Bilous, 2021); the financing of development projects is also needed to impact the community by prioritising development grants, decentralising of energy resources, introducing knowledge, community cooperation, entrepreneurship development, and environmental greening. At the same time, motivational processes characterising group work will continue to encourage enthusiasm and cooperation in achieving the project's goals.

1.1 Rural Communities Sustainable Development

The concept of sustainable development is to provide success goals with various dimensions for measuring the quality of life in parallel with developing a promising future in all aspects. Sustainable Development Goals (SDG) (Opoku, 2016) are determined by the United Nations (UN) agreements and conventions to address various global issues such as poverty, inequality, climate change, environmental degradation, and peace and justice arising in the development of human civilisation. This works alongside Millennium Development Goals (MDG), which focuses on economic, social, and environmental development to ensure safer modernisation processes and inclusion of everyone regardless of differences with the theme of "Leaving no one behind" (LNOB) (Hasan et al., 2023). The sustainable development aspiration of UN Members is to eradicate poverty in all its forms, end discrimination and exclusion, and reduce inequalities and vulnerabilities that leave people behind and undermine both human and humanitarian potential (Gupta et al., 2023). To provide improved well-being and enjoyment of a good life to the target population of Development in Malaysia, the All-Party Malaysian Parliamentary Group strengthened the implementation of the SDG by increasing the number of projects that have a positive impact on the community and society in Malaysia (Nurul Hidayat Ab Rahman et al., 2023; Danial Mohd Yusof & Zainal Abidin Sanusi, 2021).

Rapid development with the advancement of technology is now causing great concern to human life regardless of populations in the cities or rural areas. Different groups may have different backgrounds and issues that need to be solved within their communities, such as food availability, safety, education, and many more (Puteh & Wan, 2023). Therefore, the All-Party Parliamentary Group Malaysia on the Sustainable Development Goals (APPGM-SDG) development funds should be channelled to target groups to unite all parties involved in using resources and improving their quality of life. The implementation of development in these target areas has challenges and opportunities to be worked on by an integrated approach towards sustainability development played out by management, governance structures, business models, and measurement and reporting systems to implement 'integrated sustainability' in a good organisation.

To ensure that the community accepts the SDGs, especially in rural areas, it is essential to assess their strengths and needs first. Observations on chosen policies and changes on various dimensions should be conducted, especially on urgent daily needs, as well as recognising and empowering actors who can be involved in grassroots processes that can contribute towards a meaningful 'transformative innovation or a new idea or inventive in work process' in the sustainability of the project in the future (Leach et al., 2012). Determination of individuals to deliver on related projects needed by the target groups and of the SDGs may create specific improvements related to their local-level implementation (Sharifah et al., 2023; Rashed & Shah, 2021). Finally,

understanding SDGs and their applications must be achieved through lectures or explanations of the project process to all participants so that the project goals may have a maximum impact on society. Therefore, the objectives of this study are: i) to determine the involvement of the community in the government agencies project in Sarawak North, ii) to analyse the impact of Solutions projects on beneficiaries and stakeholders, and iii) to analyse the impact on SDGs in relations to targets and indicators in Sarawak North.

2. Methodology

The state of Sarawak encompasses a large land area covering 37.5 per cent of the land area of Malaysia, with a distribution of 31 parliamentary seats. Most parliamentary constituencies in Sarawak still lack development facilities, especially road facilities. To implement the All-Party Parliamentary Group Malaysia (APPGM) project in Sarawak, the assessment area is divided into two sections: Sarawak South and North. The Sarawak North section includes 17 parliamentary constituencies (Fig. 1), assessed by a Universiti Putra Malaysia Bintulu Sarawak Campus research group. However, only five parliamentary constituencies in 2022 received SDG projects, namely Igan, Tanjung Manis, Selangau, Hulu Rajang, and Baram. Based on the total number of participants involved in the 18 SDG projects that were evaluated, a total of 500 participants were involved in carrying out projects that were awarded to solution providers. For each project, each project received a number of participants between 10 and 80 people depending on the project activities carried out.



Fig. 1 The location of the Sarawak North and Parliamentary area

A total of 18 SDG projects involving communities across various regions in Sarawak were selected for impact evaluation based on six SDG dimensions: Deep, Clear, Wide, High, SDG, and Gender. Impact evaluation for these projects involved reviews of i) Project Proposals, ii) Monthly Reports, and iii) Final Reports provided by solution providers. The goal of document review is to determine the impact of a project by collecting and examining information on project goals, demographic data of participants, tentative, testimonials, and pictures, and evaluating the impact of the project based on a Likert scale with a score of 1 to 5 according to the lowest to highest impact. In addition to document reviews (DR), site visits (SV), and Focused Group Discussions (FDGs), involving 30% of solution projects or at least six projects in the study area were conducted for several selected projects to

provide additional insight on the impacts of these projects on the beneficiaries. Impact evaluation methods for the 18 solution projects are represented in Table 1.

Table 1 *Methods of impact evaluation*

No.	Parliament	Project Code	Project Name	Evaluation Method
1	Tanjung Manis	Y22-SP090	Smart literacy financial program: product pricing	DR
		Y22-SP153	Basic firefighting course	DR
		Y22-SP151	Melanau community culture and dance	DR
		Y22-SP152	Yellow noodle processing	DR
2	Igan	Y22-SP059	E-Entrepreneurship program	DR
		Y22-SP060	Handphone repair skills development program for Daro District	DR
		Y22-SP061	Handphone repair skills development program for Matu District	DR
		Y22-SP062	E-Marketing management program	DR
3	Selangau	Y22-SP074	Traditional handicraft program	DR
		Y22-SP075	Hydroponic project Long Beyak	DR, FGD, SV
		Y22-SP076	Hydroponic project Nanga Woh	DR
4	Hulu Rajang	Y22-SP022	Creating local champion in handphone repair skills program among the participants of phase 1 in Belaga, Hulu Rejang	DR, FGD, SV
		Y22-SP023	Creating local champion in handphone repair skills program among the participants of phase 1 in Tubau, Hulu Rejang	DR
		Y22-SP031	Chef & bakery skills	DR, FGD, SV
		Y22-SP192	Generating Income and business through mobile phone repair skills program	DR, FGD, SV
		Y22-SP118	Buri fabric-making course	DR, FGD, SV
5	Baram	Y22-SP164	Smartphone repair course	DR, FGD, SV
		Y22-SP191	Community capacity development of the original people in Uma Bawang, Sungai Keluan in the practice of agroecological principles	DR

Note: DR=Document Review; FGD=Focus Group Discussion; SV=Site Visit

Based on the table, projects selected for SVs and FGD were three (3) projects from Hulu Rajang, two (2) projects from Baram, and one from Selangau, for a total of six projects. The selection of FGD participants is based on the proximity of the project sites to ensure easy access, and the diversity of SDG projects. Additionally, a minimal timeframe is given for conducting assessments. The FGD sessions are conducted by contacting service providers, and randomly selecting 20 participants for each project. Participants are residents involved in SDG projects and must answer instrument questions before the interview. The face-to-face interviews were conducted to obtain additional information based on the questions on the questionnaire's items. The SVs and FGD sessions were conducted on the following dates:

- i) Hulu Rajang & Baram (Y22-SP031, Y22-SP022, Y22-SP192, Y22-SP118, Y22-SP164) from 12th to 15th January 2024
- ii) Selangau (Y22-SP075) from 19th to 21st January 2024

A total of five (5) evaluators were involved in these sessions. These evaluators were divided into two teams for concurrent FGD sessions in Hulu Rajang and Baram, and all five evaluators were present for FGD and site visit sessions in Selangau. The FGD sessions targeted around beneficiaries from various ethnicities, age groups, and

genders to obtain information from a more diverse sample of participants. However, a typical FGD session might have less than 10 participants due to participants having work commitments. Reaching some site locations may also require land travel through rough terrain, which takes up to 6 to 8 hours from Bintulu. Upon reaching the site locations, the evaluators would have a preliminary discussion session with the participants, followed by interviews with selected beneficiaries. Most participants involved in the FGD sessions ranged between 20- 80 years of age, with the ethnicities mainly being Iban, Kayan, Kenyah, and Malay. During these sessions, the following questions were used for questionnaires and interviews with the project beneficiaries:

The following questions were used for questionnaires and interviews with the project beneficiaries:

1. How did you get to know about the program?
2. Why did you attend the program?
3. What skills did you acquire?
4. If yes, how are the newly acquired skills benefiting you?
5. Do you maintain contact with those you met at the program?
6. Did you develop a certain procedure/structure through/because of the program?
7. How do you feel about the program?
8. What knowledge about SDG did you gain?
9. Are you using SDGs in your work?
10. Do you have other info related to the project that you would like to share?

These questions were recommended and agreed upon among the committee members and evaluators during the SDG inception workshop held between 3rd - 5th November 2023 in Hotel Maluri, Kuala Lumpur. Besides interviews and discussions, the participants of the FGD sessions were also required to demonstrate knowledge and skills acquired throughout the project. Data from the sessions were then preserved as notes, transcriptions, questionnaire responses, audio recordings, photos, and videos, which were then uploaded to Google Drive. Based on the APPGM-SDG-IE Framework 2.0 for Impact Analysis, the data would be analysed by cross-checking them with the monthly and final reports made by the solution providers, focusing mainly on planning, monthly progress, and obtained SDG goals. The analysis results would then be compiled and included in the evaluator's impact report for APPGM.

3. Findings and Discussion

The evaluation results were based on a document review of 500 participants involved in 18 SDG projects implemented in North Sarawak. The percentage breakdown of gender involvement in this SDG project shows that women's participation is dominant, with 80.4% of participants compared to only 19.6% of male participants. The very encouraging involvement of women clearly shows that SDG projects in the Northern Region of Sarawak are more attractive to women, and many projects are more targeted at this group. In terms of age, the oldest participant is 73 years old, and the youngest participant is 11 years old. Based on the project attendance record, which provides complete data on the age class of the participants involved in the project found in North Sarawak, 74.2% of the participants are 50 years old and below, and 25.8% are above 50 years old.

The SDG project in the North Sarawak regional parliamentary constituency aims to provide sustainable solutions across three main aspects: economic, social, and environmental. Of the 18 projects in the assessed area, 16 focused on the economic development of the people, 11 emphasised social development, and only one focused on environmental awareness and growth. The noble efforts pioneered through the initiative of parliamentarians for each parliamentary constituency show that these projects are designed to increase the income of the target group of the project in the form of entrepreneurship development initiatives for the community as well as being a government platform to address major social issues with sustainable solutions as well as focus on environmental conservation so that the community feels cared for through the preparation of development projects.

The impact of the 18 solution projects that have been awarded in the Northern area of Sarawak has been evaluated based on six dimensions that have been set, including the Deep, Clear, Wide, High, Gender, and SDG dimensions (Ab Rahman et al., 2023; Mohd Salleh et al., 2023). Based on a range of mean values and interpretations by Mohd Salleh et al. (2023), the overall projects in North Sarawak show the average project mean score is 3.5 and is high (Table 2). Specifically, findings show significant new skill acquisition impacts of the project given to the target communities, with the mean score of 4.2 being the highest. For the mean score, the knowledge dimension, is the second highest at 3.8. The project coded Y22-SP062 is the project that was awarded the highest average score with a value of 4.83, and the project given the lowest average score with a value of 1 is Y22-SP153. Three projects obtained below average score below the average for northern Sarawak projects, namely Y22-SP022 (1.5), Y22-SP074 (2.67), and Y22-SP075 (2.67).

The projects that have been implemented in the parliamentary area in Sarawak North show that the evaluation results for the Clear (skill) dimension scored the highest with a mean of 4.2, indicating that the projects

have been implemented very well by the solution providers because they have had a positive impact and given new skills to the recipients (Table 2). Based on this value, it is categorised as high, showing that the skills received by the participants are at an outstanding level. For example, many participants involved in cooking have mastered cost-saving techniques for preparing a menu that is tasty and well-received by customers.

Table 2 Overall dimension evaluation and mean score of projects in Sarawak North

No	Project Code	Clear	Deep	Wide	High	SDGs	Gender	Total	Project Mean Score
1	Y22-SP022	2	2	1	2	1	1	9	1.50*
2	Y22-SP023	5	4	4	1	5	5	24	4.00
3	Y22-SP031	5	5	4	3	3	4	24	4.00
4	Y22-SP059	5	4	4	3	3	4	23	3.83
5	Y22-SP060	4	4	4	4	5	4	25	4.17
6	Y22-SP061	5	4	3	2	4	3	21	3.50
7	Y22-SP062	5	4	5	5	5	5	29	4.83
8	Y22-SP074	3	3	4	2	2	2	16	2.67*
9	Y22-SP075	3	3	3	1	2	4	16	2.67*
10	Y22-SP076	4	4	4	4	3	2	21	3.50
11	Y22-SP090	5	4	5	3	5	5	27	4.50
12	Y22-SP118	5	4	5	5	1	4	24	4.00
13	Y22-SP151	4	5	4	3	3	3	22	3.67
14	Y22-SP152	5	5	4	2	4	3	23	3.83
15	Y22-SP153	1	1	1	1	1	1	6	1.00*
16	Y22-SP164	4	3	3	2	4	4	20	3.33
17	Y22-SP191	5	4	4	2	3	4	22	3.67
18	Y22-SP192	5	5	3	2	5	5	25	4.17
Total		75	68	65	47	59	63	377	62.83
Mean Score		4.2	3.8	3.6	2.6	3.3	3.5	21	3.50
Level		High	High	High	Moderate	Moderate	High	High	High

Note: Based on score 1-5 in each domain

The preparation and implementation of the project are not only to improve the physical economy of the community but also with the hope that the project can increase the recipient's knowledge. Based on the 18 solution projects monitored in the Northern area of Sarawak, the Deep dimension (knowledge) evaluation results received a mean score of only 3.8 (Table 2). This value shows that the solution providers implemented the projects well because their projects have added to the participants' knowledge. The increase in knowledge through these projects, such as learning using TVET conceptual on how to repair a mobile phone screen, which was never done before but after following the phone repair course, has given the participants confidence and is believed to bring many benefits to the adults' local community in the future.

Deeper insights into the evaluation of six selected projects through site visits and FGD show that projects such as Y22-SP192 and Y22-SP152 significantly enhanced the beneficiaries' self-esteem and confidence by imparting valuable technical skills in finding solutions to complete projects such as obtaining alternative materials for mobile phone components using online purchasing skills on the internet. Meanwhile, projects such as Y22-SP191 and Y22-SP118 effectively transferred practical skills, exemplifying a consistent effort of skill transfer and empowerment. This can be seen through product sharing as an example of the completion of various fashion dresses decorated with beautiful beads ready to be marketed to customers.

Development projects assessed in most of Sarawak's Northern regions are concentrated in rural areas that are difficult to reach. In addition to the fundamental relationship between the project participants, it is also like

being stuck at the end of the village. Therefore, these projects are implemented to enable participants to establish close relationships with development agencies and individuals involved directly. The results of the evaluation show that the mean score of the wide dimension (Networking) is 3.6, which is also categorised as a high-level score (Table 2). This also shows that the participants are confident that the project can help them connect with others and build a good network. For example, projects such as Y22-SP062, Y22-SP090 and Y22-SP118 facilitate extensive networking opportunities, connecting beneficiaries with Mentors (Solution Providers), clients (customers of the products or services), and agencies (District office or Agriculture office), thus supporting sustainable income generation.

The High dimension (System) average score was contributed to a score 2.6 (Table 2). This shows that the implemented development projects have moderately improved the beneficiaries' guidelines and standard operating procedures, improving their work efficiency. Based on this value, researchers believe that this development project has not yet been able to change residents' way of life or daily practices in this relatively short period but has positively impacted their work practices.

Based on the list of projects in the Northern area of Sarawak, it cannot be denied that many projects focus more on women's economic development, especially in handicraft skills, cooking, and high-tech agriculture. Despite this, based on an average score of 3.5, gender inclusion proved to be considered equal in the implementation of the project because it ensured the participation of both genders (gender dimension), i.e., men and women (Table 2). The value of this mean score is considered high in the participation of participants to provide a good balance in society.).

Each project in North Sarawak has targeted several SDGs as outlined by stakeholders. However, three projects were assessed to get an SDG score of 1, namely Y22-SP022, Y22-SP118, and Y22-SP153 (Table 2). This is because the projects are incomplete regarding their reporting documents, and ultimately, the evaluator cannot determine the level of achievement of the project's SDGs. On average, the project's overall score was only 3.3, and it had multiple SDGs, especially Quality Education, Gender Equality, Decent Work, and Economic Growth. However, some gaps in reporting achievements were noted (SDG dimensions).

The results of the analysis of the main policy areas were carried out on 18 projects in North Sarawak to check the relationship and impact on the evaluation process. It was found that the solution projects implemented to ensure that development takes place according to the area involved are related to several key policy areas. Impact evaluation analysis shows that the solution project addresses at least eight categories of related policy areas. Project contributions to specific SDGs varied, with the highest scores of 72% each for Quality Education (Goal 4), Gender Equality (Goal 5), and Decent Work and Economic Growth (Goal 8) (Table 3). Moderate scores of 44% were seen for No Poverty (Goal 1) and Partnerships for the Goals (Goal 17). Lower scores were 22% and 11% for Zero Hunger (Goal 2), Good Health and Well-being (Goal 3), and Sustainable Cities and Communities (Goal 11), while minimal scores of 5.5% were for Affordable and Clean Energy (Goal 7) and Peace, Justice, and Strong Institutions (Goal 16).

Table 3 Summary of solution projects and related SDGs

No	Project Code	3	4	5	7	8	11	16	17
1	Y22-SP022		x	x		x			
2	Y22-SP023		x	x		x			
3	Y22-SP031		x	x		x			
4	Y22-SP059		x			x			
5	Y22-SP060			x		x			
6	Y22-SP061			x		x			
7	Y22-SP062		x	x	x				
8	Y22-SP074		x						x
9	Y22-SP075	x	x	x		x			x
10	Y22-SP076	x	x	x		x			x
11	Y22-SP090			x		x			
12	Y22-SP118		x	x		x			x
13	Y22-SP151		x	x					x
14	Y22-SP152		x	x					
15	Y22-SP153						x	x	x
16	Y22-SP164		x			x	x		
17	Y22-SP191		x			x			x
18	Y22-SP192			x		x			x

Total	2	13	13	1	13	2	1	8
Percentage	11%	72%	72%	5.5%	72%	11%	5.5%	44%

The evaluation highlighted several challenges faced by beneficiaries, solution providers, and impact evaluators. Beneficiaries struggled with accessing raw ingredients and high-tech agricultural resources, as well as continuous guidance and practical training, particularly in smartphone repair, limited capital, and poor internet connectivity. Solution providers faced low participant interest, logistical hurdles in rural areas, insufficient detail and documentation in reports, high cost of specialised equipment, and delayed certifications. Impact evaluators noted variability in beneficiaries' skill levels, infrastructure inadequacies affecting project accessibility, and concerns about the sustainability of specific project components, such as temporary hydroponic systems. Despite these challenges, the projects demonstrated potential for significant community impact and improvement in well-being. Addressing logistical and educational gaps remains crucial for ensuring the long-term success and sustainability of these initiatives.

4. Conclusion

The community often welcomes projects that focus on community needs because their impact can help in the long-term sustainable development process. Based on the impact assessment of solution projects carried out in the northern Sarawak area, the community, especially in the inland areas, needs a project to encourage the economic improvement of the people regardless of gender. We conclude that most of the targeted projects have received much attention and involvement from women, with a very high number (80.4%) showing that women need to take responsibility for improving the family economy. The impact of project implementation also shows that the community in North Sarawak is still very much in need of increased learning services and skills improvement in any project if it can help improve self-advancement to help increase the income of the whole family with skill scores obtained at a high level with mean score 4.2. Achievements in sustainable development in society need to be improved. They will continue to be a priority for the authorities based on the projects implemented, which are more likely to improve the quality of education (72%) and the TVET skills of the participants involved. Community involvement in Malaysia should continue prioritising sustainable development strategies that focus on the skill development system, especially TVET, so that the community has quality basic skills and continues to have resources that exist around them with more cost-effectiveness. In conclusion, the sincere efforts of APPGM-SDG to better regulate the progress of the project is a strategy for ensuring that the project that is carried out has an impact on the target group and can improve the problem and provide a solution method in the future as well as proposing a solid strategy and action plan that can be implemented to policymakers and decision-makers. As a recommendation for future actions, the initial explanation at the beginning of the project needs to be done better so that each level of activity in the project continues to receive a good response so that the project's objectives can be achieved and understood by all those involved in the future.

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Conflict of Interest

We declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

Study conception and design: Philip Lepun, Joyce Morris Kapong, Ribka Alan, Fakhzan Buang, and Peter Clarence Cluny; **data collection:** Philip Lepun, Joyce Morris Kapong, Ribka Alan, Fakhzan Buang, and Peter Clarence Cluny; **analysis and interpretation of results:** Philip Lepun, Joyce Morris Kapong, Ribka Alan, Fakhzan Buang, and Peter Clarence Cluny; **manuscript drafting:** Philip Lepun, Joyce Morris Kapong, Ribka Alan, Fakhzan Buang, and Peter Clarence Cluny. All authors reviewed the results and approved the final version of the manuscript.

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