



**PROCEEDINGS 2026-32**

Critical Futures Program

# **BARMM 2050 and Thinking Ahead**

## **Strategic Foresight for Youth Leaders in GIDAs**

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1-2 July 2025

Tawi-Tawi College of Technology and Oceanography,  
Mindanao State University



UNIVERSITY OF THE PHILIPPINES  
CENTER FOR  
INTEGRATIVE AND  
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**Cover Image Credit**

"Dr. Lallana lecturing on Strategic Foresight at MSU-IIT"

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### PROCEEDINGS

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# About the Proceedings

Strategic Foresight is defined as a discipline organizations use to gather and process information about their future operating environment.<sup>1</sup> This involves understanding the future and applying future oriented insights to an organization's strategic activities and decision-making. Strategic foresight is not about making predictions or forecasts, but identifying possibilities based on important trends, emerging issues, and potential risks.

“Strategic Foresight for Youth Leaders in Geographically Isolated and Disadvantaged Areas (GIDAs)” is a capacity-building workshop for the next generation of leaders in Mindanao, specifically student leaders from Mindanao State University Tawi-Tawi College of Technology and Oceanography and Mindanao State University Iligan Institute of Technology to consider how their regions would look like in the future. The workshop hopes to help student leaders apply strategic foresight to determine their decision-making in policy recommendation. By using tools such as Horizon Scanning, Scenario Planning, and Backcasting, young leaders are introduced to practical and forward thinking in decision making and leadership.

The two-day presentations in MSU-TCTO were opened by Freddy A. Julkanain, MPA, Vice Chancellor for Planning and Development, with the lectures by Dr. Emmanuel C. Lallana, Professorial Fellow from the University of the Philippines, Convenor of Critical Futures Program (CFP), and adjunct professor at MSU-TCTO. While the MSU-IIT workshop was opened by Bainorah L. Amante, MPA, Head, EEU, and the lectures led by Dr. Emmanuel C. Lallana.

Given that the core lectures for both MSU-TCTO and MSU-IIT were identical, these sessions were documented under one single consolidated proceeding, except for the participants' presentations which varied per site.

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1 Jon Iden, Leif B. Methlie, and Gunnar E. Christensen, "The nature of strategic foresight research: A systematic literature review," *Technological Forecasting and Social Change* 116 (2017): 87-97.



# **BARMM 2050 and Thinking Ahead**

## **Strategic Foresight for Youth Leaders in GIDAs**



The event was held in Mindanao State University Tawi-Tawi College of Technology and Oceanography on July 1–2 and was opened by Mary Joyce Guinto-Sali, PhD, Chancellor of Mindanao State University-TCTO.

Prof. Freddie Julkanain, Vice Chancellor for Planning and Development and Head of Office of Future Studies and Foresight introduced Futures Thinking. He defined futures studies as a discipline aimed at exploring possible, probable, and preferred futures. He mentioned that this helps us to think beyond the present and anticipate future outcomes and opportunities. For leaders, integrating Futures Thinking allows them to anticipate change, make better decisions, and inspire others. Prof. Julkanain then went over the basics of Futures Thinking, which includes Scanning, Imaging, and Planning where he provides examples of current trends to illustrate the concept further, such as that of technology and of mental health. For the former, Prof. Julkanain talked about the increasing number of students who use artificial intelligence (AI) tools for schoolwork. This crisis poses both opportunities and challenges, but good leadership—one that incorporates Futures Thinking—would prompt one to have digital skills training and advocacy. Similar to the latter, with the rise of mental health issues, he stated that good leadership would prompt one to hold peer groups and workshops with the growing stress and support needed.

Observing trends, asking “what if?” questions, and collaborating is essential in integrating the Futures Thinking into decision making. Collaborating is particularly important as this supports inclusive and participatory decision-making by considering diverse perspectives. When this is done, the mindset shifts from being reactive to proactive. Lastly, he highlights that Futures Thinking is a leadership skill that is essential so that one can effectively prepare, lead, and inspire others.

## The Futures Cone

The lecture opened with Dr. Emmanuel C. Lallana, PhD introducing future studies—a multidisciplinary field that systematically explores possible, probable, and preferable futures. This aims to understand how social, technological, and environmental trends might shape the future and explore how people might live and work in the coming years. Anticipating the future happens because one wants to achieve that said future. He underscores that the future is something that is open and not predetermined.

To visualize this, Dr. Lallana talked about the Futures Cone which depicts the expanded taxonomy of alternative futures as a cone diagram.<sup>2</sup> This expands beyond the known three main classes of futures - possible, probable, and preferable, with the most recent one now consisting of eight categories, namely Potential, Preposterous, Possible, Plausible, Probable, Preferable, Projected, and Predicted.

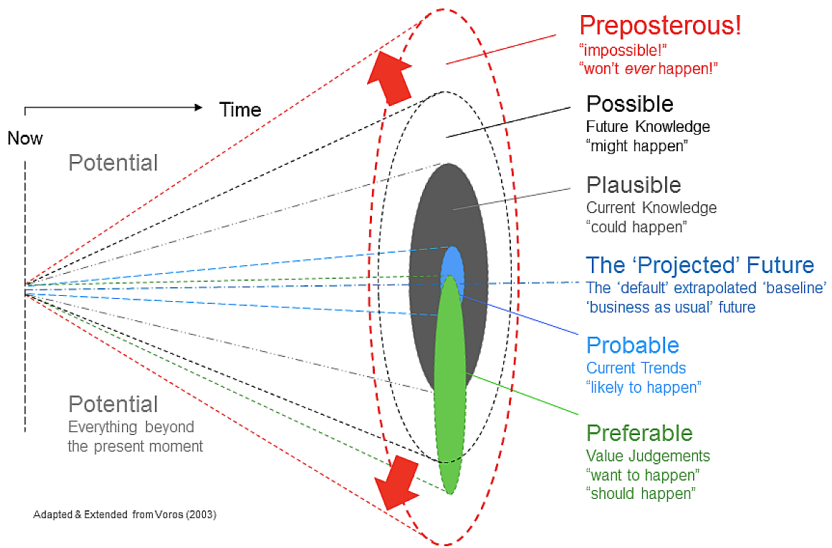
This Futures Cone model was used to portray alternative futures by Hancock and Bezold (1994)<sup>3</sup> which is based on a taxonomy of futures by Norman Henchey.<sup>4</sup> This consists of eight categories that are considered to be subjective judgments about ideas about the future, suggesting that these can change over time.

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2 Joseph Voros, “The Futures Cone, Use and History,” The Voroscope (blog), 24 February 2017. <https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/>.

3 Trevor Hancock and Clement Bezold, “Possible futures, preferable futures,” *The Healthcare Forum Journal*, vol. 37, no. 2 (1994): 23-29.

4 Norman Henchey, “Making sense of future studies,” *Alternatives: Perspectives on Society, Technology and Environment* 7, no. 2 (1978): 24-27.



1. “Potential” means that everything beyond the present moment belongs to the realm of possible futures. This rests on the idea that the future is not predetermined, fixed, or inevitable. This belief is a core principle of Futures Studies.
2. The “Preposterous” category refers to the futures we currently dismiss as absurd, impossible, or believe that could never happen. Still, it is important to acknowledge this as Arthur C. Clarke quotes in Second Law, “the only way of finding the limits of the possible is by going beyond them into the impossible.”
3. “Possible” refers to the futures that could happen based on discoveries that we haven’t made but might gain in the future. Examples include brain-to-brain communication or AI systems being autonomously capable of running entire companies or cities. These sound extreme but could shift closer to reality with the advancing of science and technology.
4. In contrast with the previous, “Plausible” futures are those that align with how the world already works. These are logical conclusions we make based on present conditions.
5. “Probable” refers to those we think are “likely to happen,” usually based on current trends.

6. When it comes to futures we believe should happen based on our values, this is the “Preferable” future. These are futures shaped by goals, ethics, and aspirations rather than predictions.
7. The “Projected” future represents the baseline scenario – a continuation of current trends and systems into the future or the “business as usual” scenario. This is what sits within the most probable range of the probable futures.
8. Lastly, “Predicted” futures are specific scenarios that someone claims will happen. These are assertions about the future rather than open possibilities.

Dr. Lallana also quoted Vinod Khosla: “The future is not an extrapolation of the past.” Transformative changes, innovations, and unpredictable events can break linear trends. The future is created through present day actions and decision making.

## Strategic Foresight

The mercurial political, social, ecological, and technological landscape is rapidly changing the way people function in societies. A policy that is designed for the present may not be appropriate a decade from now; similarly, technologies currently being used for everyday living may be rendered obsolete within 20 years. Because of this constant change, anticipating and planning for the future becomes essential to navigate uncertainty and prepare for what lies ahead.

Dr. Lallana defined Strategic Foresight as a structured and systematic process used to identify emerging trends, assess potential future scenarios, and inform strategic planning. This is a subset of Futures Studies with a stronger emphasis on practical application and action-oriented planning. In this discipline, one explores future scenarios to anticipate changes, develop possible transition pathways, and withstand shocks. This process “helps us act in the present to shape the future we want.” Dr. Lallana emphasizes that strategic foresight must not be confused with forecasting, which presumes that future outcomes are based on historical data, nor must this be confused with strategic planning, as Strategic Foresight has an explicit approach to ambiguity and uncertainty that planning does not have.

The process of foresight involves creating visions of the future and developing strategies to achieve those future visions. This is empowering as this allows

one to anticipate challenges and opportunities by identifying emerging trends, potential threats, and promising opportunities.<sup>5</sup>

Dr. Lallana lists the uses of Strategic Foresight:

### 1. Anticipating or Preparing for Change

- a. Identifying early signals
- b. Exploring multiple futures
- c. Reducing risk

### 2. Enhancing Decision-Making

- a. Informed choices
- b. Resource Allocation
- c. Policy Formulation

### 3. Building Resilience and Flexibility

- a. Agile Strategies
- b. Shared Understanding
- c. Long-term thinking

To illustrate strategic foresight, Dr. Lallana discussed the European Commission (EC) Strategic Foresight Report 2023. Here, the EC acknowledged its steadfast goal in achieving climate neutrality and sustainability while also acknowledging the extreme transition that will have to be undertaken in order to meet this sustainable future. It puts the “green transition” and the “digital transition” side by side, stating that the green transition will require pivotal changes and tradeoffs that will inevitably affect economies and societies. The report “examines key intersections between structural trends and dynamics affecting the social and economic aspects of sustainability to clarify the potential choices and trade-offs the EU is likely to face in the future.”<sup>6</sup> This incorporates foresight exercises, builds on insights from its previous editions, and identifies emerging critical challenges that will shape the transformation of society and

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5 Shiela R. Castillo, “Navigating Social Justice: Why Strategic Foresight Is Important,” United Edge, 24 November 2023. <https://www.unitededge.net/post/navigating-social-justice-why-strategic-foresight-is-important>.

6 European Commission, *Strategic Foresight Report 2023: Sustainability and People's Wellbeing at the Heart of Europe's Open Strategic Autonomy*, (Luxembourg: Publications Office of the European Union, 2023),36. [https://commission.europa.eu/system/files/2023-07/SFR-23-beautified-version\\_en\\_0.pdf](https://commission.europa.eu/system/files/2023-07/SFR-23-beautified-version_en_0.pdf).

the economy towards a model that upholds planetary limits, maintains global competitiveness, strengthens social foundations, and enhances resilience.

The EU 2023 Strategic Foresight Report lists the following Areas for Action: Using the EU's internal market to promote sustainable products and services, Strategic Intelligence and Anticipatory Governance, Addressing Inequality, Strengthening Democracy, Investing in Skills, Promoting Innovation, Better coordination and cooperation at all levels of government, Strengthening the Social Market Economy, Enhancing Global Leadership, and Adjusting GDP to reflect well-being and environmental factors.

Dr. Lallana then proceeded to discuss the tools in Strategic Foresight, namely Horizon Scanning, Scenario Planning, and Backcasting.

## Horizon Scanning

Horizon Scanning is used to detect and assess early signs of potentially significant developments, emerging technologies, trends, or societal changes that could impact policy or decision-making. It is a systematic method for spotting potential causes of uncertainty, ensuring adequate preparation, exploiting opportunities, and surviving threats.

Horizon Scanning focuses on the early detection of weak signals as indicators of potential change; it is a piece of information that, while seemingly insignificant on its own, might point towards a larger trend, disruption, or opportunity that could become significant. These early, subtle indicators may explore novel and unexpected issues, as well as persistent problems or trends.<sup>7</sup>

Examples of these weak signals could be new technologies in their infancy, social changes, economic indicators, and political events. He then lists the process in Horizon Scanning:

1. Identify Scope: Define the area of interest.
2. Data Collection: Gather information from various sources.
3. Signal Analysis: Identify and analyze early signals of change.

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7 Marco A. Palomino, Sarah Bardsley, Kevin Bown, Jennifer De Lurio, Peter Ellwood, David Holland-Smith, Bob Huggins, Alexandra Vincenti, Harry Woodroof, and Richard Owen. "Web-based horizon scanning: concepts and practice," *Foresight* 14, no. 5 (2012): 355-373.

4. Prioritization: Determine which signals are most important to address.

Horizon Scanning is not just identifying context, but also to understand the enablers and the obstacles of change. He mentioned the duality of structures and agency, and how structures provide frameworks and boundaries that, while potentially limiting some actions, also create opportunities for others. Moreover, driving forces must be identified as there are underlying factors that may indirectly shape decisions. This helps contextualize emerging signals, improve the likelihood of successful foresight activities, and facilitate the development of proactive strategies.

He introduced PESTLE Analysis as a tool used for Horizon Scanning. The PESTLE Analysis analyzes six factors—Political, Economic, Social, Technological, Legal, and Environmental—and how they affect an organization. This is a framework or tool used to analyze and monitor the macro-environmental factors that have an impact on an organization, company, or industry.

Dr. Lallana went over each of the letters in PESTLE Analysis. Starting with Political factors, this includes general political issues, regime change or leadership changes, social movements, and maturity of institutions. Economic factors include inflation, exchange rates, economic growth, unemployment level, and trade wars. The Social category includes lifestyle trends, education levels, age distributions, general attitudes. Technological factors include the rise of AI, big data and computing, cybersecurity threats, supply chain automation, clean energy, and alternative transport systems. Legal factors consist of labor laws, consumer laws, regulatory environment, and health and safety laws. Lastly, Environmental factors include sustainability, climate change, waste management, and urbanization.

To illustrate horizon scanning, Dr. Lallana discussed *Shaping the Trends of Our Time - A Report of the UN Economist Network for the United Nations' 75th Anniversary*. This report reflects upon – among others – the megatrends that shape our world and how these, along with the deficiencies in public policy, influenced the lack of success in staying on track of the SDGs that were set.<sup>8</sup> The five megatrends identified in the report are: 1) climate change;

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8 United Nations Department of Economic and Social Affairs, Report of the UN Economist Network for the UN 75th Anniversary: Executive Summary, Revised ed., (United Nations, 2020). <https://www.un.org/development/desa/publications/wp-content/uploads/sites/10/2020/10/20-124-UNEN-75Report-ExecSumm-EN-REVISED.pdf>.

2) demographic shifts, particularly population ageing; 3) urbanization; 4) the emergence of digital technologies; and 5) inequalities.

Apart from *Shaping the Trends of Our Time*, Dr. Lallana also discussed *The Global Risks Report 2025* which presents insights from over 900 experts worldwide on immediate term risks (2025), medium term risks (2027), and long-term risks (2035). The five key findings from the report are:

- **Declining Optimism.** The global outlook is increasingly fractured across geopolitical, environmental, economic, and technological domains. For the 10-year timeframe, 62% of the respondents are expecting “stormy” or “turbulent” times. This was similar to the reports in the previous year, with the respondents displaying skepticism and being apprehensive that institutions are capable of navigating through the fractured systems of today.
- **Deepening Geopolitical and Goeconomic tensions.** Twenty-three percent of respondents mention that the number one risk as of today is state-based armed conflict given Russia’s invasion of Ukraine, the Middle East and Sudan, and Palestine and Israel. Moreover, respondents were also concerned by the role of technology in geopolitical tensions, with cyber espionage and warfare ranked fifth in the two-year outlook. The top risk however in 2027 is misinformation and disinformation due to proliferation of false and misleading content online complicating the geopolitical environment.
- **Growing Sense of Societal Fragmentation.** This consists of inequality, societal polarization, involuntary migration or displacement, and erosion of human rights and/or civic freedoms. In super-ageing societies (Japan, South Korea, Italy, or Germany) unfavourable demographic trends could accentuate these risks over the next 10 years.
- **Environmental Risks – From Long-Term Concern to Urgent Reality.** The environmental risks have worsened in intensity from the report launched in 2006. The outlook for the next decade is alarming with it expected to worsen in severity from the 2-year to the 10-year time horizon, with extreme weather events anticipated to become more of a concern than it already is. This also includes biodiversity loss and ecosystem collapse, with this ranking the second over the 10-year horizon.

- Technological Risks. still “under the radar.” Adverse outcomes of AI technologies are high on the 10-year risk ranking compared to the two-year risk ranking. The report highlights the danger in Generative AI producing false and misleading content at a scale and how this could lead to societal polarization.<sup>9</sup>

After the lecture, Dr. Lallana instructed the participants to create their own versions of the PESTLE analysis of factors that will influence the development of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) in the next 25 years.

The horizon scanning output developed by the MSU-TCTO participants are presented in the table below.

<b>Group 1</b>		
	<b>Global Trends</b>	<b>Drivers</b>
<b>Political</b>	Political dynasies, corruption	Lack of transparency
<b>Economic</b>	Product mass exportation or innovation	Market demands
<b>Social</b>	Early marriage; overpopulation, poverty, scarcity	Inflation and cost of living
<b>Technology</b>	E-learning, E-commerce; everything done online such as ordering food online and shopping	Business benefits and economic factors
<b>Legal</b>	Birth Rate Act of 2025	Territorial Dispute Act
<b>Environment</b>	Environmental degradation	Human activities
<b>Group 2</b>		
	<b>National Trends</b>	<b>Drivers</b>
<b>Political</b>	Shift from democracy to dictatorship	Nepotism and political dynasty
<b>Economic</b>	Unemployment rate increases	Nepotism and lack of job opportunities

9 Mark Elsner, Grace Atkinson, and Saadia Zahidi, The Global Risks Report 2025, (Geneva: World Economic Forum, 2025). [https://reports.weforum.org/docs/WEF\\_Global\\_Risks\\_Report\\_2025.pdf](https://reports.weforum.org/docs/WEF_Global_Risks_Report_2025.pdf).

<b>Social</b>	Poverty	Increase in unemployment rate		
<b>Technology</b>	Cybersecurity	Breach of security		
<b>Legal</b>	Constitutional reform	Legitimacy of the constitution as to the qualifications of candidates		
<b>Environment</b>	Mining	Monopolization		
<b>Group 3</b>				
	<b>Global Trends</b>	<b>Drivers</b>	<b>National Trends</b>	<b>Drivers</b>
<b>Political</b>	Ineffective leaders	Lack of electoral education	Shift from democracy to dictatorship	Political dynasty
<b>Economic</b>	Inflation	Scarcity of resources	High unemployment rate	Lack necessary skills and unnecessary high qualifications for jobs
<b>Social</b>	Inequality	Prejudice	Child marriage	Lack of family planning
<b>Technology</b>	Threat to national data	Breach of national database security	Cyberbullying	Cancel culture
<b>Legal</b>	Territorial invasion	Territorial dispute	Smuggling of goods	Poverty and high taxes
<b>Environment</b>	Rise of sea water level	Global warming	Flooding	Illegal logging and flooding-ready infrastructure

The participants were divided into three groups and conducted horizon scanning through the PESTLE analysis to identify global and national trends and their respective drivers and their local impacts.

Group 1 focused on political dynasties and corruption as global political trends, driven by a lack of transparency. In the economic sector, they identified product mass exportation and innovation. Their social analysis included early marriage, overpopulation, and poverty, while their technological focus was on

e-learning and e-commerce. For legal and environmental aspects, they noted the "Birth Rate Act of 2025" and general environmental degradation.

Group 2 on the other hand highlighted a global shift from democracy to dictatorship and rising unemployment. Their technological concern was cybersecurity, and they identified mining as a key environmental trend.

Group 3 distinguished between global and national trends. Global trends included ineffective leaders, inflation, and rising sea levels, while national trends focused on cyberbullying, smuggling, and flooding.

Dr. Lallana provided feedback stating that the participants' perspectives should shift from local-to-global to a more top-down and outward approach (global-to-local). When thinking of trends in Horizon Scanning, he says that they first must consider how global trends impact local communities and not the other way around. Only once the global idea is established should they work their way down to finding out how this is connected locally. He further clarified that political dynasties are a national issue and not a global issue as not all countries face this problem equally. In contrast, corruption is a true and global trend because it exists in some form in all countries. Regarding the social trend, Dr. Lallana also pointed out that the issue of early marriage must be clarified as it was listed under global trends when it only occurs in specific regions.

For the legal aspect, Dr. Lallana suggested China's one-child policy as an example with its detrimental major social and cultural effects such as infanticide and the emergence of having a preference for sons. He says that this demonstrates how legal policies can have far-reaching cultural and demographic consequences. He further highlights that they should be more specific when listing these trends and that it should not be broad, pointing out the answers "marine pollution" and "degradation" by Group 1. He finally emphasizes the need for an outward-in approach rather than the reverse.

The Horizon Scanning output developed by the MSU-IIT participants are presented in the table below.

	<b>Political (Group 1)</b>	<b>Economic (Group 2)</b>	<b>Social (Group 3)</b>	<b>Technological (Group 4)</b>
<b>Global Trends</b>	Geo-political tension and conflicts	Inflation	Early marriage; overpopulation; poverty	Artificial Intelligence

<b>Drivers</b>	Territory/land	Wage increases, currency depreciation	Scarce resources	No answer
<b>National Trends</b>	Corruption	Unemployment	No answer	Computerized documents
<b>Drivers</b>	Vote buying	Lack of job opportunities; low education and skills mismatch; labor migration	No answer	No answer

Unlike the activity in MSU-TCTO, here the groups were divided per PESTLE category excluding legal and environmental.

At a global level, the groups identified geo-political tensions, inflation, early marriage and persistent poverty and overpopulation, and the rapid advancement of artificial intelligence driven by territorial disputes, economic instability, and resource scarcity. At the national level, the groups mentioned issues of corruption, unemployment and increasing digitalization of systems, with the participants indicating that the underlying drivers for these are vote buying, limited job opportunities, low education levels, skills mismatch, and labor migration.

Dr. Lallana highlighted similar sentiments with MSU-TCTO – to ensure that the trends are more specific and to apply the top-down approach. Overall, the outputs frame the region’s future as influenced by interconnected governance challenges, socioeconomic pressures, and technological transformation that require proactive and adaptive policy responses.

After the participants’ presentations, Dr. Lallana proceeded with the second lecture, Scenario Planning.

## Scenario Planning

Scenario Planning is a tool that improves strategic decision-making and dealing with uncertainty. It is used to deal with inherent uncertainty in short-term disruptions, for exploring long-term developments, and to help test the

robustness of different strategies against multiple possible futures.<sup>10</sup> Through this tool, one may look at different future scenarios and consider varied combinations of assumptions and events.

Dr. Lallana proceeds to list the uses of scenario planning:

1. Call attention to the larger range of possibilities that must be considered in the analysis of the future.
2. Dramatize and illustrate the possibilities they focus on in a very useful way.
3. Force the analyst to deal with details and dynamics that they might easily avoid treating if they restricted themselves to abstract considerations.
4. Help to illuminate the interaction of psychological, social, economic, cultural, political, and military factors.
5. Forcefully illustrate certain principles, issues, or questions that might be ignored or lost if one insisted on taking examples only from the complex and controversial real world.
6. Consider alternative possible outcomes of certain real past and present events,
7. Used as artificial "case histories" and "historical anecdotes" to make up to some degree for the paucity of actual examples.

Good scenarios have 11 key characteristics. Plausibility, Differentiation, Internal Inconsistency, Relevance and Challenge, Focus on Critical Uncertainties, Actionable Insights, Believable Context, Meaningful Decision Points, Plausible Choices and Consequences, Feedback and Reflections, and Limited Number of Scenarios.

Dr. Lallana then gave examples of scenarios. The first one discussed is the US National Intelligence Council Global Trends 2040. The Global Trends assesses key trends and uncertainties that will shape the strategic environment for the United States. The report discussed the following scenarios:

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10 Kathy Cordova-Pozo and Etienne AJA Rouwette. "Types of scenario planning and their effectiveness: A review of reviews," *Futures* 149 (2023): 103153.

- Renaissance of Democracies. In this scenario, the United States is leading in a resurgence of democracies and that their country is at the forefront of leadership in transforming the global economy, raising incomes, and improving the quality of life for millions around the globe; that this is fueled by the rapid technological advancements fostered by public-private partnerships in the United States and other democratic societies.
- A World Adrift. In this scenario, by 2040 the international system is fragmented, chaotic, and volatile as global rules and institutions are largely disregarded by major powers such as China, regional players, and nonstate actors. Countries within the Organization for Economic Cooperation and Development (OECD) countries are plagued by slower economic growth, widening societal divisions, and political paralysis.
- Competitive Coexistence, in this scenario the United States and China prioritize economic growth and peace relations. Competitive Coexistence projects major players United States and China to restore their robust trading relationship while letting competition over political influence, governance models, technological dominance, and strategic advantage coexist with this economic interdependence. In this scenario, the risk of major war is low and international cooperation makes global problems manageable, but other long-term challenges may remain.
- Separate Silos. It imagines that in 2040 the world is fragmented into multiple economic and security blocs of varying influence and capacity, anchored by powers such as the United States, China, the European Union, Russia, and other regional actors. These blocs prioritize self-reliance, resilience, and defense. Information flows within separate cyber-sovereign enclaves, supply chains are reoriented, and international trade is disrupted. On the other hand, developing countries are vulnerable and are caught between competing powers, with some on the cusp of being a failed state. Global problems, notably climate change, are spottily addressed, if at all.

A group exercise on scenario planning followed the presentation.

The participants were asked to develop three scenarios for BARMM 2050 with little (marginal) change, some (adaptive) change, and radical (transformative change). The participants must develop three sub-scenarios, firstly in governance, economic development, and then environment/sustainability.

The scenarios developed by the MSU-TCTO participants are presented in the table below.

<p><b>Marginal (Group 1)</b></p>	<p><b>Local Governance</b></p> <ul style="list-style-type: none"> <li>■ The leaders are still sticking to “<i>ayuda</i>” as a strategy of aiding poverty.</li> <li>■ The youth leaders are given opportunities and funds for youth development, yet they are not utilizing it properly</li> </ul>
	<p><b>Economic Development</b></p> <ul style="list-style-type: none"> <li>■ More graduates, less job opportunities</li> <li>■ <i>Palakasan</i>/padrino system existing</li> </ul>
	<p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>■ No mitigation plan for the effect of sea level rise</li> <li>■ No strict implementation of solid and liquid waste management in the marine environment</li> </ul>
<p><b>Adaptive (Group 2)</b></p>	<p><b>Local Governance</b></p> <p>“Righteous Leadership Starts with the Filing of COC in Tawi-Tawi”</p> <ul style="list-style-type: none"> <li>■ In 2050, Tawi-Tawi has evolved into a beacon of ethical and community-rooted governance within the Bangsamoro Autonomous region. The political landscape has shifted from personality-based political to values-driven leadership—starting with reformed qualifications for filing Certificate of candidacy. The youth of Tawi-Tawi delved directly to the Reform Movement. After a series of political crises and ineffective leadership in the past decades. Tawi-Tawi youth, civil society, and elder councils united in a grassroots campaign called “<i>Dapat Karapat Dapat</i> (Only the Deserving).”</li> </ul>
	<p><b>Economic Development</b></p> <p>“Tawi-Tawi to the World”</p> <ul style="list-style-type: none"> <li>■ By 2050, Tawi-Tawi has become more open to tourists, attracting visitors not only for its stunning views and beaches but also for its rich historical, cultural, and environmental preservation. Tourists that come to Tawi-Tawi are able to have the experience to taste the traditional cuisine of Tawi-Tawi. They are also introduced to the traditional clothing, performance art such as dancing as well as its rich history.</li> </ul>
	<p><b>Sustainability</b></p> <p>“The Rise of Changemakers”</p> <ul style="list-style-type: none"> <li>■ After 25 years, Tawi-Tawi becomes a sustainable area where people are environmentally aware and adopt sustainable living.</li> </ul>

	<p>Single-use plastics are avoided, instead people opt for eco-friendly reusable bags and containers. The community conducts cleanups, workshops and programs on environment education, implements sustainable practices, promotes good mining practices, and collaborates with the government to initiate sustainable developments. In addition, Tawi-Tawi becomes resilient against natural disasters such as tsunami, coastal floods, and storms as the community becomes equipped with the skills and knowledge on disaster preparedness and response mitigating the impacts of disasters and promoting resilience and effective early warning systems are also established allowing the people to prepare beforehand.</p>
<p><b>Transformative (Group 3)</b></p>	<p><b>Local Governance</b></p> <p>Pseudo Tawi-Tawi</p> <ul style="list-style-type: none"> <li>■ In 2050: there will be more compassionate and capable officials (people vote responsibly and wisely).</li> <li>■ Youths are also empowered and involved in bill crafting and policy making processes and will lead the community.</li> </ul>
	<p><b>Economic Development</b></p> <ul style="list-style-type: none"> <li>■ The employment rate increases to 30% (due to integration of AI and skills acquisition seminars).</li> <li>■ Inequality is completely diminished and there will be equality in terms of job and assistance allocation and opportunities given.</li> </ul>
	<p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>■ Clear and pollution-free seas in Tawi-Tawi (due to policies and ordinances with penalization to irresponsible waste disposal).</li> <li>■ Sea level lowers due to collaborative global efforts of environmental preservation.</li> </ul>

Group 1 depicted the marginal scenarios with little change from the existing challenges we face, including reliance on short-term aid, continual patronage systems, limited job opportunities despite increased graduates, and weak environmental management amidst the ongoing climate crisis. On the other hand, the adaptive scenario envisioned gradual improvements and reforms, such as the local government strengthening their integrity and upholding values in governance and policy-formation (this including the filing of COC to replace the padrino system), expanding tourism and cultural industries on an environmental level, and on the level of sustainability, envisioning Tawi-Tawi as a sustainable city, resilient to natural disasters and proactive in community development.

The transformative scenario presented a future with participatory leadership where the youth are empowered and deeply involved in policy decision-making at the level of local governance. They also envision a future with a surge in economic development and an increase in employment rates driven by technological integration. With regards to sustainability, Group 3 envisions a future for Tawi-Tawi with stricter laws and regulations established for protecting their marine environment. Through this, the sea level lowers due to collaborative efforts.

Dr. Lallana emphasized that scenarios should be in a narration-style form and should look like one is storytelling. Overall, the scenarios highlighted pathways from stagnation to systemic transformation depending on governance quality, civic participation, and sustainability-oriented development.

The scenarios developed by the MSU-IIT participants are presented in the table below.

<b>Marginal (Group 1)</b>	<p><b>Local Governance</b></p> <p>By 2050, BARMM remains trapped in old cycles. The same political dynasty holds power in the region, with no new ordinances passed to meet the needs of its people. Policies are still recycled, and job opportunities are scarce due to the backer system in the government that still persists. Bakwits cannot go back to their homes due to their ancestral home having built a government infrastructure.</p>
	<p><b>Economic Development</b></p> <p>By 2050, “padulas” or the under the table rule still exists in many offices. Bribes move faster than paperwork, and connections matter more than competence. Even transcripts of records can be bought, turning education into a transaction. This leads to mismatch between skills and roles, weakening the institutions and dragging its economy.</p>
	<p><b>Sustainability</b></p> <p>By 2050, Marawi City will still be called the city of tarpaulins because of programs, campaigns, and events and because they are never recycled. Each one is bigger than the last, piling up in corners, and adding to the growing waste problem of the city. With no proper solid waste management, trash clogs waterways. When the rains come, flooding becomes the norm, made worse by the lack of proper drainage.</p>

<b>Adaptive (Group 2)</b>	<p><b>Local Governance</b></p> <p>By 2050, the BARMM government provides a better system in delivering basic social services and prioritizes inclusion of marginalized groups like IP women and the LGBTQIA+ community. However, nepotism, political dynasties and notable corruption scandals are still emerging.</p>
	<p><b>Economic Development</b></p> <p>In 2050, despite the BARMM's provision of social services for indigenous peoples (IPs), women, and the LGBTQ community creating opportunities for them to secure decent and good-paying jobs, gender biases and discrimination still persist.</p>
	<p><b>Sustainability</b></p> <p>By 2050, the BARMM's social services for IPs, women, and the LGBTQ community have not only created decent and good-paying jobs but also fostered sustainable livelihoods. BARMM is gradually adopting innovation and technological advancements.</p>
<b>Transformative (Group 3)</b>	<p><b>Local Governance</b></p> <p>In 2050, the government fully implements laws for the Digital Technology Based Learning System, especially in isolated areas in BARMM. Where disadvantaged areas have full access to internet connections.</p>
	<p><b>Economic Development</b></p> <p>In 2050, the economic sector in BARMM will be dependent on using digital based entrepreneurship and job seeking, such as; online trading, online selling, ecommerce and work from home.</p>
	<p><b>Sustainability</b></p> <p>In 2050, the forest ecosystem will be restored as physical buildings and spaces will not be needed for office work and education.</p>

The marginal scenario portrayed by the first group envisioned institutional stagnation marked by entrenched political dynasties, persistent patronage systems – particularly the continual toleration of the “*padulas*” systems, weak public services, corruption-driven inefficiencies, and ignored environmental issues that weaken drainage systems. They mention the continued displacement of “*bakwits*” in communities (a local Mindanaoan term derived from the English word “evacuates”), due to government infrastructure replacing their ancestral homes.

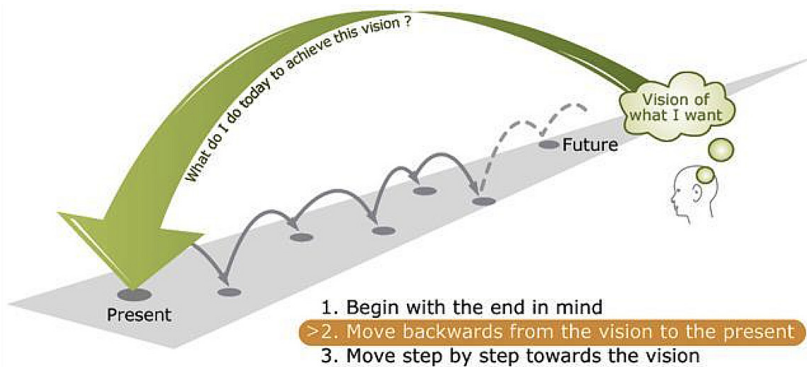
Meanwhile, Group 2 discussed adaptive scenarios and envisioned gradual improvements through expanded social services, more inclusive governance

for marginalized groups, growing adoption of technology and innovation, and the emergence of more sustainable livelihoods, though they acknowledge that this will not be perfect and that structural issues such as corruption and discrimination may remain.

Lastly, the transformative scenarios by Group 3 presented a future characterized by technological integration at the level of local governance and economic development. The group envisioned a government that has laws for the Digital Technology-Based Learning System in isolated areas and equitable employment supported by this technological integration. On the environmental level, they envision a transition towards clean and renewable energy sources.

A presentation on Backcasting followed the group presentations on scenario planning.

## Backcasting



Source: <https://old.naturalstep.ca/backcasting>

Backcasting a tool used for shaping preferred futures. It involves envisioning a future where goals have already been realized, working backwards to map the steps needed to reach that outcome. This is a tool where one finds ways of linking goals that lie more than a generation in the future to a set of steps performed now and designed to achieve that end.

This is the baseline for action prioritization and investment as this identifies the steps, conditions, and events needed to realize the scenarios aiming to be achieved. Backcasting can be likened to that of a puzzle where pieces must be put together to create the desired future, or chess, where one has to go about

playing the game in strategic ways, all the while keeping one's vision of success in mind.

A form of backcasting is participatory backcasting, which aims to design a collective future scenario by co-creating the pathways needed to get there. Participatory backcasting offers benefits, such as increased engagement and ownership, enhanced understanding, improved consensus and collaboration, and more robust and effective planning.

Dr. Lallana then discusses the A-B-C-D method, a step-by-step model based on backcasting that helps strategically plan towards a sustainable future. It involves four recurring steps that organizations repeat as they advance towards sustainability.

- A = Awareness and Visioning: The process must align around a common vision and be built around a common understanding and language.
- B = Baseline Mapping: This must evaluate existing policies, programs, etc. and make sure it is appropriate to the social context and organizational culture to understand how to introduce inclusive change.
- C = Creative Solutions: It must brainstorm potential solutions to the issues highlighted in the baseline analysis. The decision-making process should begin with the end in mind and move forward with each action providing a platform for further improvement.
- D = Decide on Priorities: The organization should prioritize the measures that move the organization towards sustainability fastest. The measures should also optimize flexibility and maximize social, ecological, and economic returns. This also suggests going for low hanging fruits.

Backcasting and using the A-B-C-D method may be applied in policy formation within government, wherein each administration should build from the last administration's process to achieve a goal by the desired year.

After the lecture, participants were asked to backcast the scenarios they developed for BARMM 2050. In particular, they were asked to develop recommendations in terms of improving governance, enhancing economic development, and ensuring sustainability.

### Backcasting Activity

The groups were divided per level (Marginal, Adaptive, Transformative) and were asked to indicate the steps for innovation in increments of every five years.

The backcasting output of MSU-TCTO participants are presented below.

<b>Group 1: Marginal</b>	
<b>Local Government</b>	<p><b>In the next 5 years (2030)</b> Consensus survey, crafting proposals for cash assistance, conduct a youth leadership program</p>
	<p><b>In the next 10 years (2035)</b> Distribution of cash assistance, youth organization conduct seminar for civic education</p>
	<p><b>In the next 15 years (2040)</b> Regular distribution of cash assistance in different municipality youth organization participated election stewardship</p>
	<p><b>In the next 20 years (2045)</b> Regularly monitoring the progress of the distribution of cash assistance in different municipalities</p>
	<p><b>In the next 25 years (2050)</b> The leaders are still sticking to “<i>ayuda</i>” as a strategy of aiding poverty, the youth leaders on the other hand are given opportunities and funds for youth development, yet they are not utilizing it properly.</p>
<b>Economy</b>	<p><b>In the next 5 years (2030)</b> Identification of recipients and partners, identify agencies for job opportunities</p>
	<p><b>In the next 10 years (2035)</b> Conduct inter-agency job fair, universities hone employable graduates</p>
	<p><b>In the next 15 years (2040)</b> Regular job fair, graduates became hireable</p>
	<p><b>In the next 20 years (2045)</b> Monitoring the progress of job fairs in different municipalities. The employment is based on real qualifications but there is still a <i>palakasan</i> system.</p>
	<p><b>In the next 25 years (2050)</b> Universities in Tawi-Tawi had produced more competitive graduates, but there are still less job opportunities as a result of the “<i>Palakasan System</i>”.</p>

<b>Environment</b>	<p><b>In the next 5 years (2030)</b> Created a committee on environment, create of CSO Environmental Youth Advocate</p>
	<p><b>In the next 10 years (2035)</b> Launch community environmental awareness campaign in community high school, launch community environmental awareness campaign in community for barangay units</p>
	<p><b>In the next 15 years (2040)</b> Schools in partnership with community to conduct regular clan up drive, barangay in partnership with community started the practicing the segregation of solid and waste management</p>
	<p><b>In the next 20 years (2045)</b> The relationship between the school and community is getting better during this time of the year  The relationship between barangay and community becomes more harmonic, and their objective is almost based in community during this time of the year</p>
	<p><b>In the next 25 years (2050)</b> There are still no mitigation plans to for the effect of sea level rise and no strict implementation on solid and liquid waste management in the marine environment</p>
<b>Group 2: Adaptive</b>	
<p><b>In the next 5 years (2030)</b></p> <ul style="list-style-type: none"> <li>■ The local government units conducted a community census to analyze and give solutions to the problems of the community. And so they found out that the problems of the community are primarily in the economic and environmental sector. Such as Lack of job opportunities, unequal access to information. The problems also include the rise of sea levels and the polluted marine environment. Moreover, they also identify that the community is in need of youth development. Then they began crafting proposals and identifying the recipients and affiliations for cash aid because they believe that this is the best solution for the problem, while planning to conduct a youth leadership program. Furthermore, the number of graduates is still increasing throughout the year. The government has created a committee on environment where they are responsible for crafting regulations for sea level rise and marine pollution.</li> </ul>	
<p><b>In the next 10 years (2035)</b></p> <ul style="list-style-type: none"> <li>■ After preparing for the program, they then begin to implement this and go to different communities to deliver the cash assistance with the help of youth organizations, NGOs. They also begin to conduct a training workshop to equip them with skills needed for the job. Additionally, they also launch a community awareness campaign on the importance of being an environmental stewardship spearheaded by the committee on environment.</li> </ul>	

**In the next 15 years (2040)**

- During this time, the programs and activities are really going well: regular cash assistance, regular youth skills program in partnership with national and regional agencies
- The job opportunities are increasing. However, the number of graduates also increases
- The windows of opportunities are widely open, but the “*palakasan*” system is still there
- Regular community awareness campaigns encourage the people to do their responsibility and obligations as a member of the community, by simply doing community services
- The LGU also does their part which is to monitor the programs of the community by conducting a monthly visitation through different barangays

**In the next 20 years (2045)**

- During this time, the programs and projects are implemented. Nonetheless, throughout the year these programs has not been going well
- The scarcity of resources
- Inactive participation of the community
- The graduates went to another place for job opportunities

**In the next 25 years (2050)**

- The leaders are still sticking to “*ayuda*” as a strategy of aiding poverty, the youth leaders on the other hand are given opportunities and funds for youth development, yet they are not utilizing it properly
- Universities in Tawi-Tawi had produced more competitive graduates, but there are still less job opportunities as a result of the “*palakasan* system”
- There are still no mitigation plans for the effect of sea level rise and no strict implementation on solid and liquid waste management on marine environments

**Group 3: Transformative****In the next 5 years (2030)**

- Identifying partners (COMELEC) and NGOs (NAMFREL) and SKs meeting with them for planning
- Seminars and educational forums for electorates will be planned and implemented by the youths and other partners before an election that will help in neglecting the cycle of vote-buying
- Tawi-Tawians elect one good leader that will demonstrate good leadership in Barangay Poblacion

- Collaborative meeting and partnership with the SKs and youth organizations and universities
- Identifying partners (TESDA) and meeting with them for collaboration
- Identifying skills and jobs needed in the community
- Planning for workshops to train the community with the needed skills
- Identifying partners in promoting equality in choosing the qualifications for recipients of cash incentives and other charities in the barangays in Bongao
- Collaboration with the local government and NGOs as partners
- Planning of seminars, workshops, and clean-up drives to be conducted
- Identification of funding sources
- Identifying partners like SKs and barangay officials in planning actions for environmental preservation of our seas

#### **In the next 10 years (2035)**

- By 2031 and 2034, national election and local election will be held by which empowered youths elect 5 good leaders in the all barangay in Bongao (regardless of position) due to good leadership demonstration.
- Youths become the majority of the electorate and vote for good leaders in Bongao.
- Implementation of seminars and workshops for skills acquisition in the barangay level up to the municipal and provincial level
- Training for community
- Additional jobs are identified
- The government supports local owned small businesses in Bongao municipality without any trace of nepotism
- More businesses are owned by the locals
- Implementation of planned proposals in barangays
- Propose bill and ordinance to maintain the cleanliness
- LGUs and other NGOs in Bongao participate in clean up drives, seminars and advocacy and other efforts for environmental preservation to minimize global warming

#### **In the next 15 years (2040)**

- By 2037 and 2040 elections, the electoral population will be dominated by the empowered youths that are expected to elect 30 capable and compassionate leaders in all barangays in Tawi-Tawi
- Involving the youths in bill crafting and policy making in the province
- Community members are equipped with the necessary skills

<ul style="list-style-type: none"> <li>■ Creation of the additional jobs needed</li> <li>■ Job fair for job allocation to the community members</li> <li>■ The government provides job opportunities to Badjaos and other marginalized groups in Tawi-Tawi</li> <li>■ Implementation of the proposals in the universities and municipal levels</li> <li>■ The provincial government supports the initiatives regarding the environmental preservation and extends more advanced answers to rising sea levels</li> </ul>
<p><b>In the next 20 years (2045)</b></p> <ul style="list-style-type: none"> <li>■ By 2043, 100 good leaders will be elected at the national level</li> <li>■ Youth leads the community by acquiring leadership positions and leading with principle-based morals</li> <li>■ 10% increase in employment rate</li> <li>■ The community supports the initiatives and efforts of competent locals in terms of businesses and other opportunities in the province</li> <li>■ Application, enforcement and penalization within the provincial level</li> <li>■ Environmental efforts are implemented in the national community to eventually influence the global community</li> </ul>
<p><b>In the next 25 years (2050)</b></p> <ul style="list-style-type: none"> <li>■ Compassionate and capable leaders in Tawi-Tawi</li> <li>■ Empowered youth</li> <li>■ 30% Increase in employment rates</li> <li>■ Equal opportunities</li> <li>■ Pollution-free seas</li> <li>■ Low sea level</li> </ul>

For the marginal pathway, the participants proposed incremental measures with minimal changes throughout the course of 25 years. At the local government level, the youth leadership initiatives stay stagnant with short-term “*ayuda*” strategies – particularly cash distribution – being tolerated even after 25 years. Economy wise, there are efforts done in creating more job opportunities for graduates, however only by a marginal difference due to the continual perpetration of the “*palakasan* system.”

At the environmental level, Group 1 envisioned there being an established committee on the environment, strengthening ties with schools and communities, but having no definite improvement on the environment from empirical evidence due to the loose implementations of laws and regulations.

Group 2 outlined the adaptive pathway through coordinated institutional reforms where they identify the root causes of issues and use this to build on proposals for solutions, highlighting issues in the economic and the environmental sector. In the next 10 years, they intend to implement these proposals while relying on cash assistance with the help of youth organizations and non-government organizations (NGOs). This implementation is efficient and there are increasing job opportunities, however resource scarcity remains. Within 25 years, some leaders still stick to old strategies such as “*ayuda*.” Youth leaders are given funds and opportunities, yet they are not efficiently utilized. Group 2 also highlighted how Tawi-Tawi has produced more competitive graduates, yet job opportunities remain scarce.

On the transformative level, Group 3 outlined this type of change with definite measures. They emphasized systemic change by coordinating with various stakeholders and making sure proposals are being implemented and from there, sustained. This involves starting with identifying partners such as the Commission on Elections (COMELEC) and the National Citizens' Movement for Free Elections (NAMFREL) to ensure that the next election prevents the cycle of vote-buying. Partners are also identified in promoting environmental change, inclusivity, and capacity building to equip the community with the skills needed to strengthen employment levels. From here, the next election will empower the youth and elect good leaders. The government supports local businesses improving the local economy, ordinances are proposed to improve cleanliness, and local government units (LGUs) and other NGOs are more proactive in environmental preservation. These changes are then revealed through empirical evidence, with a 10 percent increase in employment rate. The efforts are sustained and by 2050, there is a 30 percent increase in employment rate, the leaders are capable and compassionate, there are equal opportunities, and seas are significantly less polluted.

The backcasting output of MSU-IIT participants are summarized below.

<p><b>Marginal (Group 1)</b></p>	<p><b>Local Governance</b></p> <p>Strengthening existing policies:</p> <ul style="list-style-type: none"> <li>■ Voters education (youth reforms)</li> <li>■ Establish a law stating you can only run in politics once, and after the following election, no one in your family up to the third degree of consanguinity can run in politics.</li> </ul>
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	<p><b>Economic Development</b></p> <p>Digital governance</p> <ul style="list-style-type: none"> <li>■ purchase of digital tools (computers, online platforms, website subscriptions); trainings for employees</li> <li>■ additional and upgrades of digital purchases and pilot programs</li> </ul> <p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>■ Promote public awareness and education</li> <li>■ Establish proper collection and recycling infrastructure</li> <li>■ Implement ban regulations limiting duration of display</li> </ul>
<p><b>Adaptive (Group 2)</b></p>	<p><b>Local Governance</b></p> <p>Implement budget tracking system app</p> <ul style="list-style-type: none"> <li>■ Ensure 30% reservation for women, IPs, and LGBTQIA+ leaders in local councils</li> </ul> <p><b>Economic Development</b></p> <p>Open free vocational schools</p> <ul style="list-style-type: none"> <li>■ Support marginalized groups in business leadership</li> </ul> <p><b>Sustainability</b></p> <p>Solar-powered community centers</p> <ul style="list-style-type: none"> <li>■ Introduce mobile tech vans for farming app training</li> </ul>
<p><b>Transformative (Group 3)</b></p>	<p><b>Local Governance</b></p> <ul style="list-style-type: none"> <li>■ Provide rugged, low cost tablets/laptops for learners and teachers.</li> <li>■ Equip schools with solar power + battery to handle charging and run equipment during outages</li> </ul> <p><b>Economic Development</b></p> <ul style="list-style-type: none"> <li>■ BARMM establishes a regional digital ID system for all residents</li> <li>■ Promote digital marketplaces where students, parents and teachers can access affordable learning tools, local crafts and products</li> </ul> <p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>■ BARMM will use hydropower, windmills, and solar panels to achieve clean, reliable and sustainable energy for the community</li> <li>■ Equip schools with solar panels and battery storage to power devices and the internet</li> </ul>

Group 1 identified marginal measures by strengthening existing policies through voter education and strengthening laws on political dynasties, digitalization of governance systems, and improved waste management

infrastructure—though these measures were framed insufficient to fully overcome entrenched patronage systems and environmental pressures. On the other hand, Group 2 presented the adaptive pathway by emphasizing institutional reforms such as inclusive representation for marginalized groups—including having a fixed reservation allotted for women, indigenous people, and members of the LGBTQIA+. Moreover, they proposed the expansion of vocational education, and the development of solar-powered community infrastructure to improve service delivery and livelihood opportunities.

Lastly, the transformative pathway proposed by Group 3 focused on systemic change through widespread access to digital technology in education and governance, the establishment of regional digital identity systems and online economic platforms, and a transition to renewable energy sources including hydropower, wind, and solar.

Dr. Lallana commented on the groups' presentations and said that when it comes to backcasting, measures for every succeeding year need to be provided to show the change and development towards achieving the desired goal. Overall, the backcasting outputs mapped progressive pathways from policy strengthening to structural transformation, highlighting the role of technological integration, inclusive governance, and sustainable energy systems in shaping long-term regional development.

## Synthesis

The two workshops from Mindanao State University Tawi-Tawi College of Technology and Oceanography and Mindanao State University Iligan Institute of Technology provided insight towards the possibilities, challenges, and hopes of the next generation of leaders in the region. Across the exercises on horizon scanning, scenario planning, and backcasting from both Tawi-Tawi and Iligan, the workshop collectively framed BARM's future as one that is contingent on governance quality, inclusive economic development, and sustainability-oriented transformation.

Introducing the youth leaders to the strategic foresight tools through these two-day workshops paved the way for intentional, compassionate, and inclusive leadership that the participants can apply in their day to day as young leaders, all the way up to the future when they hold much higher positions. Dr. Lallana acknowledged the imperfections of the participants' inputs, but highlighted that the events of the workshops are not the end to learning these tools – they

are merely the beginning of its application. Throughout the workshops, the participants were taught to be proactive and methodical when it comes to policy-making, ensuring that whatever they plan is future-proof and one that elicits tangible and meaningful outcomes that acknowledge all sectors of their communities. He further emphasized to the youth leaders to be imaginative and radical with their visions of the future, and not to be conservatively tied down to the patterns that encumber society from innovation.

Taken together, the future of BARMM is neither predetermined nor purely reactive; it is actively contracted through the deliberate choices made by the leaders who govern it and the sustained participation of the communities living in it. More than the technical exercise, the strategic foresight process revealed a shared aspiration for the people living in GIDAs and the possibilities of transformative change for their communities through collective action.

## References

- Castillo, Shiela R. 2023. "Navigating Social Justice: Why Strategic Foresight Is Important." United Edge, 24 November 2023. <https://www.unitededge.net/post/navigating-social-justice-why-strategic-foresight-is-important>.
- Cordova-Pozo, Kathya, and Etiënne AJA Rouwette. 2023. "Types of scenario planning and their effectiveness: A review of reviews." *Futures* 149: 103153. <https://doi.org/10.1016/j.futures.2023.103153>.
- Elsner, Mark, Grace Atkinson, and Saadia Zahid. 2025. *The Global Risks Report 2025*. Geneva: World Economic Forum. [https://reports.weforum.org/docs/WEF\\_Global\\_Risks\\_Report\\_2025.pdf](https://reports.weforum.org/docs/WEF_Global_Risks_Report_2025.pdf).
- European Commission. 2023. *Strategic Foresight Report 2023: Sustainability and People's Wellbeing at the Heart of Europe's Open Strategic Autonomy*. Luxembourg: Publications Office of the European Union. [https://commission.europa.eu/system/files/2023-07/SFR-23-beautified-version\\_en\\_0.pdf](https://commission.europa.eu/system/files/2023-07/SFR-23-beautified-version_en_0.pdf).
- Hancock, Trevor, and Clement Bezold. 1994. "Possible futures, preferable futures." *The Healthcare Forum Journal*, 37 (2): 23-29. 1994. [https://www.researchgate.net/publication/13166132\\_Possible\\_futures\\_preferable\\_futures](https://www.researchgate.net/publication/13166132_Possible_futures_preferable_futures).

- Henchey, Norman. 1978. "Making sense of future studies." *Alternatives: Perspectives on Society, Technology and Environment* 7 (2): 24-27. <https://www.scribd.com/document/640394280/Henchey-N-1978-Making-Sense-of-Future-Studies>.
- Iden, Jon, Leif B. Methlie, and Gunnar E. Christensen. 2017. "The nature of strategic foresight research: A systematic literature review." *Technological Forecasting and Social Change* 116 (2017): 87-97. <https://doi.org/10.1016/j.techfore.2016.11.002>.
- Palomino, Marco A., Sarah Bardsley, Kevin Bown, Jennifer De Lurio, Peter Ellwood, David Holland-Smith, Bob Huggins, Alexandra Vincenti, Harry Woodroof, and Richard Owen. 2012. "Web-based horizon scanning: concepts and practice." *Foresight* 14 (5): 355-373.
- The Natural Step Canada. "Backcasting." The Natural Step Canada, accessed 20 February 2026. <https://old.naturalstep.ca/backcasting>.
- United Nations Department of Economic and Social Affairs. 2020. *Report of the UN Economist Network for the UN 75th Anniversary: Executive Summary*. Revised ed., United Nations. <https://www.un.org/development/desa/publications/wp-content/uploads/sites/10/2020/10/20-124-UNEN-75Report-ExecSumm-EN-REVISED.pdf>.
- Voros, Joseph. 2017. "The Futures Cone, Use and History." The Voroscope (blog), 24 February 2017. <https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/>.



## **Center for Integrative and Development Studies**

Established in 1985 by University of the Philippines (UP) President Edgardo J. Angara, the UP Center for Integrative and Development Studies (UP CIDS) is the policy research unit of the University that connects disciplines and scholars across the several units of the UP System. It is mandated to encourage collaborative and rigorous research addressing issues of national significance by supporting scholars and securing funding, enabling them to produce outputs and recommendations for public policy.

The UP CIDS currently has twelve research programs that are clustered under the areas of education and capacity building, development, and social, political, and cultural studies. It publishes policy briefs, monographs, webinar/conference/forum proceedings, and the Philippine Journal for Public Policy, all of which can be downloaded free from the UP CIDS website.

### **The Program**

The Critical Futures Program (CFP) will examine urgent issues facing the nation in a technologically-driven but environmentally challenged world. It will seek to enhance the competence of Filipinos, as individual and collective actors, to use digital technology to achieve inclusive and sustainable development.

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