



Executive Program on System Thinking for Transformation and Sustainability

A Training Proposal for Public Service Department Malaysia



10 days of Training

PROGRAM DURATION



19 May - 29 May 2025

DATE



The University of
Queensland, Australia

VENUE



Capri By Fraser,
Brisbane

ACCOMMODATION

Prepared By:

BINASKIL ACADEMY

THE UNIVERSITY OF QUEENSLAND

INTRODUCTION

SYSTEM THINKING FOR GOVERNMENT TRANSFORMATION AND SUSTAINABILITY



Unlock the power of systems thinking to address complex challenges in complex systems and drive sustainable growth. The Executive Program on Systems Thinking for Leadership and Sustainability at the University of Queensland is a tailored, high-impact course designed to equip industry leaders with the skills and strategies necessary to navigate the interconnected, dynamic nature of the complex systems.

This 2-weeks program, crafted specifically for executives, managers, and decision-makers combines foundational systems thinking principles with practical applications.

Participants will explore critical issues in areas such as supply chain and resource management, climate resilience, and sustainability. Through expert-led workshops, field visits to leading businesses and research institutions, and hands-on project work, participants gain a comprehensive understanding of how to leverage systems thinking for impactful change.



SYSTEM THINKING: A TRANSFORMATIVE APPROACH FOR EFFECTIVE DECISION-MAKING AND LEADERSHIP

As global challenges grow increasingly complex, government leaders require a holistic and integrated approach to problem-solving. Systems thinking offers a structured way to analyze interconnections, identify leverage points, and implement effective interventions to achieve long-term impact.

By focusing on transformation and sustainability, this program emphasizes the importance of aligning leadership practices with dynamic systems to address socio-economic and environmental challenges.

WHAT IS SYSTEM THINKING?

At its core, System Thinking is a way of viewing problems as parts of an interconnected whole, rather than isolated incidents. It encourages decision-makers to look beyond immediate symptoms and analyze the underlying structures, relationships, and feedback loops that shape outcomes.

For managers and leaders, this means understanding how different sectors — such as the economy, environment, health, and education — interact and influence one another. Instead of implementing short-term fixes that may lead to unintended side effects, System Thinking helps leaders develop sustainable policies that create long-term value and resilience.

Applying system thinking tools and framework in leading the transformation and promote sustainability.





PROGRAM OUTCOMES

1

Apply Systems Thinking Frameworks to analyze and address complex government initiatives, identifying leverage points for effective and sustainable solutions.



2

Lead Sustainable Transformation within their organizations and sectors by fostering a holistic, integrated approach to policy-making and leadership.



3

Develop Forward-Looking Policies that strategically balance short-term priorities with long-term sustainability outcomes, ensuring resilience and lasting impact.



4

Formulate a Return-to-Work Plan (RWP): Participants will design an actionable strategy tailored to their ministry's unique challenges, using a systems thinking approach.

The RWP serves as a practical, implementable blueprint that enables participants to immediately apply their learnings, drive transformation, and deliver measurable outcomes within their respective organizations.

ACTION PLAN DEVELOPMENT AS INDIVIDUAL PROJECTS

The program will also facilitate the development of action plan to help the participants to develop their own actionable Systems Thinking Action Plan tailored to their organisation's needs.



PROGRAM HIGHLIGHTS



Learn core systems thinking principles and tools including causal loop diagrams, value chain mapping, and leverage point identification.



Apply contemporary concepts such as climate-smart practices and sustainability principles to create resilient, sustainable systems.



Participate in immersive field visits to leading businesses and research centres, observing sustainable practices and systems-based solutions in action.





PROGRAM STRUCTURE AND DURATION



Duration: 2 weeks



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

Location: The University of Queensland, Australia



Delivery format: Blending lectures, workshops, and field visits to top businesses and research institutions.



Cohort size: 20-25 participants for effective collaboration and personalised attention





LEARNING OUTCOMES

By the end of the program, participants will be able to:

Operationalise systems thinking principles to enhance decision-making.

Use scenario planning to guide decisions in uncertain environments.

Identify bottlenecks and leverage points to enhance system efficiency and resilience.

1

2

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6

Apply systems thinking tools to understand complex issues within systems.

Use participatory mapping to foster collaboration and support for sustainable initiatives.

Integrate contemporary concept practices and bioeconomy principles for sustainable resource management.

Participants will leave equipped to drive sustainable and systems-based transformations.

PROGRAM OUTLINE AND MODULES

WEEK 1		
NO	MODULE	DESCRIPTION
1	Foundations of Systems Thinking	Introduction to systems thinking: understanding complexity, interconnections, and dynamic systems.
2	Tools and Frameworks of System Thinking	Tools and techniques: causal loop diagrams, stocks and flows, system maps.
3	Mapping and Analysing Systems	Equip participants with mapping techniques to understand interdependencies and identify potential intervention points within systems.
4	Decision-Making Under Uncertainty and Risk in Systems	Use systems dynamics, scenario planning, and risk assessment to manage uncertainties and enhance resilience in systems.
5	Environmental Sustainability in Systems	Apply contemporary concepts such as sustainability and circular economy principles to maximise resource efficiency, reduce waste, and create sustainable economic value. Resource use and energy efficiency.



WEEK 2		
NO	MODULE	DESCRIPTION
1	Field Engagement and Hands-On Practice	<p>Workshops and Group Work: Participants collaborate on complex system challenges using system dynamics and participatory mapping techniques.</p> <p>Panel Discussions: Engage with industry leaders to discuss decision-making challenges in complex systems.</p>
2	Field Engagement and Hands-On Practice	<p>Field Visits to:</p> <ol style="list-style-type: none"> 1. Commonwealth Scientific and Industrial Research Organization (CSIRO) 2. Queensland's State Governments 3. Leading businesses in Queensland
3	Systems-Based Problem Solving in Complex Systems	Equip participants with systems thinking techniques for complex problem-solving, from root cause analysis to scaling solutions in operational and strategic contexts.
4	Strategy Facilitation	<p>A hands-on session designed to help participants develop actionable plans tailored to the real challenges faced within their respective ministries.</p> <p>Guided by expert facilitators, participants will analyze their current situations using systems thinking tools, identify leverage points for change, and formulate comprehensive Action Plans that address transformation and sustainability goals.</p>
5	Presentation on Action Plan Development	<p>The presentation session provides participants with a platform to present their Action Plans to a panel of experts and their peers.</p> <p>This session serves as a critical opportunity for participants to receive constructive feedback, both from systems thinking experts and colleagues across different disciplines and ministries.</p>

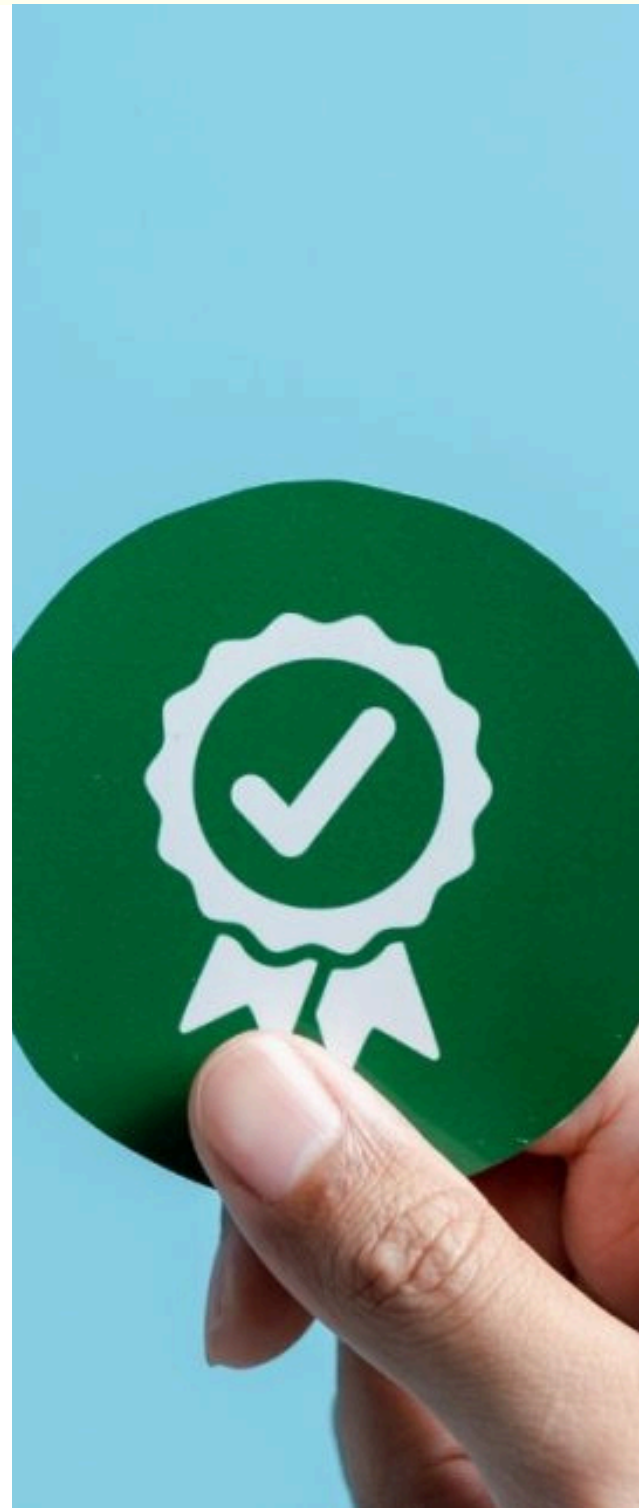
CERTIFICATION BY THE UNIVERSITY OF QUEENSLAND: A MARK OF EXCELLENCE

Participants in this System Thinking for Decision-Making and Leadership Program will be awarded an official Certificate of Participation from the University of Queensland (UQ), one of the world's leading institutions renowned for academic excellence and leadership development.

This certification not only recognizes commitment to enhancing leadership capabilities but also reflects the high-quality, evidence-based learning delivered through the program.

By completing this program, participants will gain not only valuable skills but also a prestigious credential that signifies their readiness to lead systemic change, solve complex challenges, and implement impactful policies.

This is more than just a program — it is an investment in the leadership journey, recognized globally.



A wide-angle photograph of the University of Queensland campus. In the foreground, a large, ornate stone column stands prominently. To the left, a green lawn is dotted with trees and a few people sitting. To the right, a walkway lined with similar columns leads into the distance. A person with a backpack is walking away from the camera, and another person is walking towards it. The sky is clear and blue.

ABOUT THE UNIVERSITY OF QUEENSLAND (UQ)

WORLD-CLASS INSTITUTION

- Ranked among the top 50 universities globally (QS World University Rankings)
- A member of the prestigious Group of Eight (Go8), Australia's leading research-intensive universities.

GLOBAL REPUTATION

- Recognized for excellence in teaching, research, and innovation.
- Alumni include leaders in government, industry, and academia across 190+ countries.

STRONG FOCUS ON LEADERSHIP AND DEVELOPMENT

- Renowned for delivering transformative programs that equip professionals with advanced leadership and decision-making skills.

LEADING RESEARCH AND INNOVATION

- Home to groundbreaking research, including advancements in sustainability, healthcare, agriculture, and systems thinking.
- Collaboration with government bodies, international organizations, and industries for impactful, real-world solutions.

WHO SHOULD ATTEND?

01

This program is ideal for leaders, managers, and policymakers seeking to enhance strategic decision-making, improve sustainability practices, and create resilient, adaptable complex systems in rapidly evolving sectors.

02

Elevate the managers and leaders capacity to lead transformative change in government's policies and strategies. Applying the power of systems thinking to drive a sustainable, profitable future for your organisation.





SPEAKERS PROFILE



**PROFESSOR EMERITUS DATO' DR
MOHD AZEMI BIN MOHD NOOR**
Executive Chairman
Binaskil Academy

Professor Dato' Dr Azemi brings an unparalleled depth of expertise and experience to the sustainable Halal Food Security program. As an esteemed subject matter expert in food security, he is currently engaged with the International Organisation for Food Security (IOFS) under the Organisation of Islamic Cooperation (OIC). His contributions extend to his role as a consultant for the Halal Development Corporation (HDC) Malaysia, where he critically reviews and advises on strategic blueprints and documents essential for the development of Malaysia and global Halal industry. His academic and professional journey is distinguished by a series of prestigious appointments and recognitions. Notably, Professor Dato' Dr Azemi held the Kuok Foundation Professorial Chair in Food Science and Technology, marking him as a leading figure in the field. This role underscored his significant impact and was complemented by his recognition as a Distinguished Professor at the university.

With over 30 years of experience in academia, Professor Dato' Dr Azemi has served as both Dean and Professor at Universiti Sains Malaysia, fostering educational excellence and innovation. His leadership extended to Universiti Kuala Lumpur, where, as Deputy President, he was instrumental in transforming the institution into a hub for higher TVET education. His outstanding contributions have been recognized with the title of Professor Emeritus from Universiti Kuala Lumpur and the prestigious Tokoh Pendidik MARA award (2018). A sought-after keynote speaker, Professor Dato' Dr Azemi's insights are regularly featured at various national and international conferences, further establishing his thought leadership in the field. He currently serves as the Executive Chairman at Binaskil Academy, guiding the training and consulting projects with private and public sectors.

Professor Dr Azemi has also received several international awards in recognition of his expertise and scientific contributions, such as:

- The United State Department of Agriculture (USDA) Cochrane Award.
- The United Kingdom Commonwealth Award.
- Japanese Scientific and Promotion of Science Award.
- Asian Development Bank Award.
- Senior Molton Award for best research paper in Food Engineering (United Kingdom).

Professor Dato' Dr Azemi holds a PhD in Food Technology from the University of New South Wales, Australia, obtained in 1985, equipping him with a solid foundation in both theoretical and applied aspects of food science, food technology and food security.





PROFESSOR AMMAR ABDUL AZIZ

Professor and School Direct.

School of Agriculture and Food Sustainability.
Faculty of Science, The University of Queensland.

Professor Ammar Abdul Aziz is a distinguished academic and consultant with extensive experience in applying systems thinking to solve complex challenges across industries and sectors. His expertise lies in integrating innovative technologies, risk management strategies, and advanced modeling methodologies to create sustainable, high-impact solutions. Professor Ammar has led numerous projects that focus on enhancing systems efficiency and resilience, making him a sought-after advisor for governments, corporations, and international organizations.

In addition to his academic and industry achievements, Professor Ammar is actively involved in the Australian Awards Program, a prestigious initiative under the Department of Foreign Affairs and Trade (DFAT). Through this program, he has contributed significantly to strengthening diplomacy between Australia and the Asia-Pacific region by delivering impactful training and consultancy programs aimed at capacity development. His work underscores the importance of building leadership and technical capabilities to address regional and global challenges.

With over 10 years of industry experience and a proven track record of research and consultancy, Professor Ammar has worked closely with policymakers and stakeholders to address systemic challenges in areas such as market integration, value chain optimization, and organizational resilience. His ability to apply systems thinking frameworks ensures strategic, data-driven decision-making, empowering leaders to navigate complexities, anticipate risks, and implement sustainable solutions.

A passionate educator and researcher, Professor Ammar brings a wealth of knowledge and practical insights, making him an invaluable resource for driving transformative change in leadership and decision-making.





DR JULIUS KOTIR

Senior Scientist.

Department of Agriculture and Fisheries.
Queensland Government, Australia.

Dr Julius Kotir is a Senior Scientist with the Queensland Government Department of Agriculture and Fisheries, Australia and also an Adjunct Senior Fellow in the School of Agriculture and Food Sustainability, University of Queensland.

His academic and research interest is focused on understanding and managing the complex and long-term sustainability of coupled socio-economic-environmental systems.

A particular interest is how to use this understanding to design decision support tools in the form of models to evaluate the impact of different options under an uncertain global future. His work takes an interdisciplinary approach, combining participatory co-design and field-based methods with systems thinking tools and system dynamics modelling to develop qualitative and quantitative simulation models that can support decision making.

Julius has is currently using these tools and methods to address a wide range of complex problems including international and rural development issues, food security, economics of farming systems, agrifood and digital twin supply chains, climate-smart agriculture, water resources management, farmer adoption of new practices, and agribusiness policy design and analysis.





DR MD ALI AKBER

Postdoctoral Research Fellow.

School of Agriculture and Food Sustainability.
Faculty of Science, The University of Queensland

Dr. Ali Akber is a researcher and consultant with over ten years of interdisciplinary experience in applying systems thinking frameworks and tools to drive sustainable development and solve complex challenges. His work focuses on designing and implementing systems-based approaches to enhance organizational efficiency, policy effectiveness, and long-term resilience.

Dr. Akber has led and contributed to numerous projects across South and Southeast Asia, where he successfully applied systems thinking to improve livelihoods, optimize resource allocation, and address structural challenges.

Currently serving as a Postdoctoral Research Fellow at the University of Queensland's School of Agriculture and Food Sciences, Dr. Ali works at the intersection of research and practical implementation, helping governments, organizations, and stakeholders apply systems thinking methodologies to achieve meaningful and scalable outcomes.

With a deep commitment to capacity building and development, he brings proven experience in using systems thinking as a transformative tool for leadership, policy-making, and organizational growth.



ABOUT OUR COMPANY

BINASKIL ACADEMY

Binaskil Academy is a institution known for its innovative and tailor-made training and consulting services. The firm specializes in a wide array of technical and management programs that span critical sectors such as food technology and security, pharmaceuticals, chemicals, green technology, healthcare, sustainability, disaster management, and logistics.

It also extends its expertise to leadership and management, higher education, upward mobility and Halal industry, ensuring comprehensive offerings that meet the diverse needs of professionals today.

A cornerstone of Binaskil Academy's approach is its dedicated research arm, which manages research projects aimed at solving various industry challenges and tapping into new opportunities. This research-driven strategy not only enhances the practicality of training programs but also ensures that they are grounded in the latest scientific findings and industry trends

With robust project management practices, Binaskil ensures high-impact and seamless experiences for all clients. The academy utilizes a vast network of over 300 seasoned consultants who bring a wealth of real-world experience to their training sessions, making each program both insightful and applicable.

Furthermore, Binaskil Academy collaborates with numerous prestigious global partners to design and implement training and consulting programs that integrate global best practices. This international perspective enriches the learning experience, equipping clients with the knowledge to navigate both local and international landscapes effectively.

Serving a diverse clientele that includes local and international entities from both the private and public sectors, Binaskil not only imparts crucial skills and knowledge but also fosters a collaborative environment that encourages innovation and continuous improvement in professional practices.



APPENDIX

PROGRAM SCHEDULE

Program Title : Executive Program on System Thinking for Transformation and Sustainability

Date : 14 May - 29 May 2025

Venue : The University of Queensland, Australia

Accommodation : Capri by Fraser, Brisbane

18 May 2025 (Sunday)			
	Program	Description	Time
Travelling Day	Depart and Arrival	Kuala Lumpur-Brisbane	All-Day

Training Day 1 19 May 2025 (Monday)			
Registration and Ice-Breaking	Program	Description	Time
	Breakfast		7.30 AM
	Ice Breaking and Networking	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
Foundations of Systems Thinking	Introduction to Systems Thinking	The University of Queensland (UQ)	11.00 AM
	Lunch		12.30 PM
	Understanding Complexity, Interconnections, and Dynamic Systems	The University of Queensland (UQ) Binaskil Academy	2.00 PM
	Afternoon Break		3.30 PM
	Case Study: Analysing a Complex Problem using Systems Thinking	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ)	8.00 PM
	End of Day 1		9.00 PM

Training Day 2
20 May 2025 (Tuesday)

Tools and Frameworks of System Thinking Mapping and Analysing of Systems	Program	Description	Time
	Breakfast		7.30 AM
	System Thinking: Overview of Tools and Techniques Causal-loop and Stocks and Flows Diagrams System Maps	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
	Utilising System Mapping Causal Loops Diagrams to Visualise the Causal Structure of a Complex Systems	The University of Queensland (UQ) Binaskil Academy	11.00 AM
	Lunch		12.30 PM
	Group Activity- Creating Simple System Maps/CLD: Rules and Principals	The University of Queensland (UQ)	2.00 PM
	Afternoon Break		3.30 PM
	Continue session	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ) Binaskil Academy	8.00 PM
	End of Day 2		9.00 PM

Training Day 3
21 May 2025 (Wednesday)

Field Visits	Program	Description	Time
	Breakfast		7.30 AM
	Field Visit: Commonwealth Scientific and Industrial Research Organization (CSIRO)	The University of Queensland (UQ) Binaskil Academy	8.30 AM
	Lunch		12.30 PM
	Field Visit: Queensland's State Governments	The University of Queensland (UQ) Binaskil Academy	2.00 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ) Binaskil Academy	8.00 PM
	End of Day 3		9.00 PM

Training Day 4 22 May 2025 (Thursday)			
Environmental Sustainability in Systems	Program	Description	Time
	Breakfast		7.30 AM
	Introduction to Environmental Sustainability in Systems	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
	Continue Session	The University of Queensland (UQ)	11.00 AM
	Lunch		12.30 PM
	Sustainability and Circular Economy Principles	The University of Queensland (UQ)	2.00 PM
	Afternoon Break		3.30 PM
	Continue Session	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ)	8.00 PM
	End of Day 4		9.00 PM

Training Day 5
23 May 2025 (Friday)

Strategy Facilitation Workshop	Program	Description	Time
	Breakfast		7.30 AM
	Workshop: Common Government Challenges through a System Lense	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
	Group Discussion: Selection of Group Case Study	The University of Queensland (UQ)	11.00 AM
	Lunch		12.30 PM
	Pitching of Case Study Problems	The University of Queensland (UQ)	2.00 PM
	Afternoon Break		3.30 PM
	Selection of Group Study Cases for Deeper Analysis	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ)	8.00 PM
	End of Day 5		9.00 PM

Training Day 6 24 May 2025 (Saturday)			
Industry Visit	Program	Description	Time
	Agro-Based Company in Queensland	The University of Queensland (UQ) Binaskil Academy	9.00 AM-12.00 PM

25 May 2025 (Sunday)			
Queensland Tour	Program	Description	Time
	Free and Easy/Tour	Binaskil Academy	All-Day

Training Day 7 26 May 2025 (Monday)			
Strategy Facilitation Workshop	Program	Description	Time
	Breakfast		7.30 AM
	Workshop: Understanding System Dynamics through Causal Relationship	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
	Case Study Development: Causal-loop Diagram Development	The University of Queensland (UQ)	11.00 AM
	Lunch		12.30 PM
	Workshop: Stakeholder Mapping	The University of Queensland (UQ)	2.00 PM
	Afternoon Break		3.30 PM
	Workshop: Power and Influence Mapping	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ)	8.00 PM
	End of Day 8		9.00 PM

Training Day 8
27 May 2025 (Tuesday)

Strategy Facilitation Workshop	Program	Description	Time
	Breakfast		7.30 AM
	Workshop: Refining Causal-loop Diagram	The University of Queensland (UQ)	8.30 AM
	Morning Break		10.45 AM
	Workshop: Identifying Reinforcing and Balancing Feedback Loop	The University of Queensland (UQ)	11.00 AM
	Lunch		12.30 PM
	Briefing on 12 Leverage Points Framework	The University of Queensland (UQ)	2.00 PM
	Afternoon Break		3.30 PM
	Workshop: Applying the Leverage Points to the Case Study	The University of Queensland (UQ)	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	The University of Queensland (UQ)	8.00 PM
	End of Day 9		9.00 PM

Training Day 9
28 May 2025 (Wednesday)

Strategy Facilitation and Action Plan Development	Program	Description	Time
	Breakfast		7.30 AM
	System Thinking-based Strategy Design and Stakeholder Buy-in	University of Queensland (UQ) Binaskil Academy	8.30 AM
	Morning Break		10.45 AM
	Workshop: Brainstorming Strategy Intervention	University of Queensland (UQ) Binaskil Academy	11.00 AM
	Lunch		12.30 PM
	Strategy Alignment and Issue Analysis Workshop	University of Queensland (UQ) Binaskil Academy	2.00 PM
	Afternoon Break		3.30 PM
	Workshop: Implementation Roadmap	University of Queensland (UQ) Binaskil Academy	3.45 PM
	Free and Easy		5.00 PM
	Dinner		6.30 PM
	Case Reading and Reflection	University of Queensland (UQ)	8.00 PM
	End of Day 10		9.00 PM

Training Day 10 29 May 2025 (Thursday)			
Presentation on Action Plan	Program	Description	Time
	Breakfast		7.30 AM
	Case Study Presentation	Participants	8.30 AM
	Morning Break		10.45 AM
	Workshop Synthesis and Next Steps	Participants	11.00 AM
	Lunch		12.30 PM
	Recap and Workshop Reflection	University of Queensland (UQ) Binaskil Academy	2.00 PM
	Afternoon Break		3.30 PM
	Closing and Certificate Presentation	University of Queensland (UQ) Binaskil Academy	3.45 PM
	End of Program		5.00 PM

30 May 2025 (Friday)			
Travelling Day	Program	Description	Time
	Depart and Arrival	Brisbane - Kuala Lumpur	All-Day