

PAIR

Partnership for Australia- Indonesia Research

2019-2022

FUTURE ISLANDS; CONNECTIVITY, PEOPLE AND PLACE 2019-2022



*The
Australia-Indonesia
Centre*

CONTENTS

ACRONYMS AND ABBREVIATIONS	ii
PROGRAM INVESTMENT ARCHITECTURE	iii
Executive Summary	1
Analysis and Strategic Context	3
Development Problem/ Issue Analysis	4
Evidence Base/ Lessons Learned	6
Strategic Setting and Rationale for Australian/DFAT Engagement	6
Innovation and Private Sector Engagement	7
Investment Description	8
Logic and Expected Outcomes	8
Delivery Approach	12
Resources	14
Implementation Arrangements	15
Management and Governance Arrangements and Structure	15
Procurement Arrangements, Financial Management and Fraud	17
Monitoring, Evaluation and Learning (MEL)	17
Sustainability	19
Gender Equality	20
Disability Inclusiveness	20
Private Sector	20
Risk Management	21
Safeguards	21
ANNEX A: THEORY OF CHANGE	22



ACRONYMS AND ABBREVIATIONS

AIC	The Australia-Indonesia Centre
ASEAN	Association of Southeast Asian Nations
BAPPENAS	Indonesian Ministry of National Development Planning
DFAT	Australian Department of Foreign Affairs and Trade
ECRs	Early Career Researchers
EOP	End-Of-Program-Outcome
GESI	Gender Equality and Social Inclusion
GOI	Government of Indonesia
ICMT	In-Country Management Team
J-PAL	Abdul Latif Jameel Poverty Action Lab
KIAT	Indonesia-Australia Partnership for Infrastructure
KSI	Knowledge Sector Initiative
MEL	Monitoring, Evaluation and Learning
MELF	Monitoring, Evaluation and Learning Framework
MOU	Memorandum of Understanding
PAIR	Partnership for Australia-Indonesia Research
PMT	Program Management Team
QA	Quality Assurance
RAP	Research Advisory Panel
RISTEK-DIKTI	Indonesian Ministry for Research, Technology and Higher Education
RPJMN	Indonesia's Medium-Term Development Plan
SDGs	Sustainable Development Goals
TOC	Theory of Change
UN	United Nations

PROGRAM INVESTMENT ARCHITECTURE

PARTNERSHIP FOR AUSTRALIA-INDONESIA RESEARCH (PAIR) (2019 - 2022)



Informed by **key documents:**

- Australian Government Aid Investment Plan, Indonesia 2015 - 2019 (Objective 3)
- Australian Foreign Policy White Paper 2017
- Indonesian Government's Medium-Term Development Plan (RPJMN 2015 - 2019)
- Indonesian Government's Research Master Plan 2017 - 2045



DELIVERY ORGANISATION: The Australia-Indonesia Centre (hosted by Monash University)



OBJECTIVE

To contribute to the Government of Indonesia's sustainable development priorities through evidence-based decision making by providing a proof of concept that demonstrates a research pathway to impact and is scalable and replicable across locations



THEORY OF CHANGE

A Theory of Change is provided at Annex A.

EOPO1: Better quality of evidence-based research relevant to and addressing key policy challenges in South Sulawesi

EOPO2: A network of researchers competent in conducting demand-driven and interdisciplinary team-based research



ACTIVITY (ASSOCIATED ENTITIES)

RISTEK-DIKTI
DFAT - Jakarta and Makassar
BAPPENAS
Provincial Government
Partner Universities



MONITORING & EVALUATION, REPORTING, INDICATIVE QUESTIONS

An indicative Monitoring, Evaluation and Learning Framework (MELF) is provided at Annex F. Key evaluation questions include:

Is the research model able or likely to be scaled or replicated?

Did the research model enable better quality, evidence-based research, that addresses key policy challenges in South Sulawesi?

Did the network of researchers and universities support the research model?

Did early career researchers build capability through their involvement in the research process and talent accelerator programs?

ACKNOWLEDGMENTS

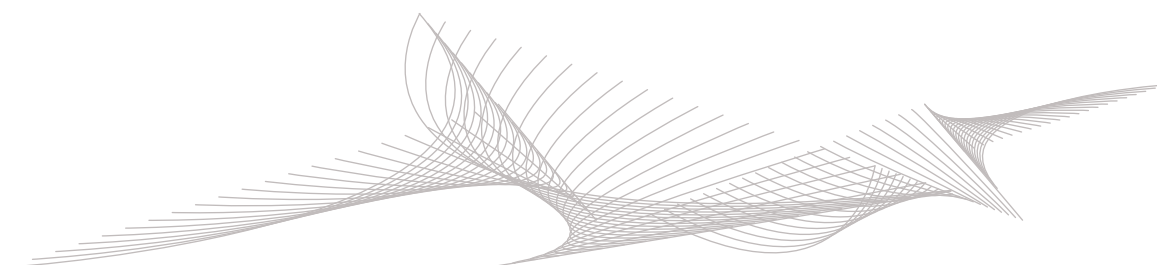
The Design Team extends its appreciation and gratitude to all who contributed, including DFAT Post Jakarta, DFAT Desk Canberra, all Implementing Partners and Whole of Government partners, as well as the AIC Advisory Board, Operations Committee and AIC staff.

AUTHORS

Dr Eugene Sebastian, The Australia-Indonesia Centre
Ms Helen Fletcher-Kennedy, The Australia-Indonesia Centre
Dr Maria Platt, The Australia-Indonesia Centre

DESIGN

Ms Jesse Kartomi Thomas, The Australia-Indonesia Centre



EXECUTIVE SUMMARY

Australia and Indonesia's future prosperity will be built on deep and enduring trade, diplomatic, cultural, defence and security linkages. Advancing institutional and people-to-people links through science, technology, education and innovation offers an opportunity for both nations to engage in a different type of partnership. One that seeks to solve complex challenges, promote a contemporary and mutual understanding of each other and reflects the maturing, long-term relationship between close neighbours.

The Partnership for Australia-Indonesia Research (PAIR) managed by The Australia-Indonesia Centre (The Centre), is an initiative supported by the Australian Government that facilitates and deepens the research linkages between both countries. PAIR builds on The Centre's earlier work, which tackled issues important to the growth of Indonesia.

The PAIR design is based on past learnings and extensive stakeholder consultations. Consultations began in June 2017 with a joint AIC-Department of Foreign Affairs and Trade (DFAT) Research Forum for Whole-of-Government partners in Canberra. Subsequent consultations involved: the eleven university partners, Indonesian and Australian Government Ministries / Departments¹, The Centre's Operations Committee and Advisory Board members, DFAT-funded initiatives², Centre researchers and industry bodies³. In late June 2018, DFAT hosted a two-day PAIR briefing and workshop at the Embassy (Jakarta), to consult and familiarise DFAT and DFAT-funded program partners⁴ with PAIR.

The Australian and Indonesian governments recognise the importance of knowledge production and research capability building to support development planning and policy priorities. PAIR responds by leveraging The Centre's research network of Australian and Indonesian research-intensive universities to develop a proof of concept that demonstrates a research pathway to impact model that can be scaled or replicated across any problem or location in Indonesia (see Annex A: Theory of Change).

¹ Meetings held with Indonesian Ministries: RISTEK-DIKTI and Ministry of Transport; Australia: DFAT, Department of Education and Training, Department of Industry, Innovation and Science, Austrade, Embassy (Jakarta) and Consulates in Makassar and Surabaya.

² DFAT-funded initiatives include the Knowledge Sector Initiative (KSI) and the Indonesia-Australia Partnership for Infrastructure (KIAT).

³ Selected business associations including the Australia-Indonesia Business Council and the Export Finance and Insurance Corporation

⁴ J-Pal, Pulse Lab and KSI



The Program seeks to achieve this through two End-of-Program-Outcomes (EOPOs):

- » Better quality of evidence-based research relevant to and addressing key policy challenges in South Sulawesi; and
- » A network of researchers competent in conducting demand-driven and interdisciplinary team-based research.

PAIR will commence on 1 January 2019 and be delivered in three phases as follows:

- » Inception (January – June, 2019)
- » Implementation (July 2019 – June 2022)
- » Review (July 2022 – December 2022)

PAIR will achieve its outcomes through a focused research agenda that is connected and aligned to other Australian and Indonesian government initiatives. PAIR will focus on the Province of South Sulawesi.

PAIR's research theme is **Future Islands: Connectivity, People and Place**. Through this thematic lens PAIR seeks to better understand, and inform responses to, Indonesia's changing context, development challenges and aspirations.

PAIR explores connectivity, people and place not as standalone issues, but as an integrated challenge. Three principles underpin PAIR: place-based, demand-driven and interdisciplinary research.

To facilitate genuine collaboration, PAIR will employ a research process that is user-centric, applied and anchored to the local context. The process has five stages: define issues; issues setting; explore; solutions co-creation; and development of a PAIR knowledge network. The research process creates stronger and deeper networks; seeks stakeholder 'buy-in' at all levels; and, if done well, fosters an open, collaborative, multi-sectoral (government-industry-research-communities) and networked approach to research.

PAIR seeks to contribute to developing the research capability of Indonesian researchers, to provide a sustainable means by which the nation can generate innovative solutions to its own development challenges. Strengthened bilateral research networks and partnerships, a major outcome of the program, will be a key resource which Indonesia can leverage to respond to current and future development challenges.

ANALYSIS AND STRATEGIC CONTEXT

Indonesia's development and sectoral challenges

With more than 260 million people, Indonesia is the world's fourth most-populous nation, the biggest economy in Southeast Asia and one of the largest emerging economies in the world. More than half of Indonesia's population are under the age of 30, making it the third largest cohort in the world after India and China. Its population is young and rapidly urbanising. Indonesian cities are growing at a striking rate of 4.1 per cent per annum – faster than any other Asian city. The World Bank predicts that by 2025, more than half of its population (68 per cent) will be living in cities.

Like many other developing nations, Indonesia faces some common challenges: rapid urbanisation; inadequate transport, logistics and supply chain impediments; and slow infrastructure development. All these issues hinder industrial activity, the capacity to expand trade volume and to efficiently meet consumer demands. While Indonesia's challenges are common, it is distinctly unique. For a sprawling archipelago of 17,500 islands, physical connectivity is a priority. Connectivity however extends beyond transport, information communications technology (ICT) and energy infrastructures. It also includes links between port, city, rural and remote areas. Strengthening connectivity is important for poverty alleviation, sustainable rural development and urbanisation. Literature shows that strong physical linkages can improve the living conditions, market access and employment opportunities of rural communities⁵.

Since 2014, the Indonesian Government has scaled its investment into improving the archipelago's intra and inter-island, rural and urban connectivity. In Makassar for instance, it is constructing a new port as a gateway to eastern Indonesia. By 2020, it plans to complete a new railway line between Makassar and Parepare – a segment of its ambitious Trans-Sulawesi railway network. Connecting cities and rural towns along the way will have significant impact and create new opportunities for rural communities – from improving health and wellbeing and increasing education and training opportunities, to empowering youth for enterprise development (leveraging food innovation, entrepreneurship, digital economy), and potentially creating strategies for leapfrogging in energy and water.

Three of Indonesia's key focus areas are the application of science and technology, poverty alleviation, and increased productivity and competitiveness. All of these priorities can be supported through stronger engagement in research. In fact, both governments recognise the importance of knowledge production in supporting development planning and policy priorities. The government research agency RISTEK-DIKTI notes in the National Research Master Plan 2017-2045, the need for an interdisciplinary approach to improve the effectiveness and efficiency of solutions to Indonesia's development challenges. RISTEK-DIKTI has also identified the need to: conduct research that is demand-driven, multi-sector and encourages interdisciplinary team-based collaboration.

⁵ United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Major issues in transport rural connectivity to wider networks Note by the secretariat. Ministerial Conference on Transport Third session Moscow, 5-9 December 2016 https://www.unescap.org/sites/default/files/pre-ods/MCT3_7E_13%20Oct%2016.pdf; Eunkyung Kwon, "Infrastructure, growth and poverty reduction in Indonesia: a cross-sectional analysis", paper presented at the ADBI Workshop on Transport Infrastructure and Poverty Reduction, Manila, July 2005.

Development Problem/ Issue Analysis

Like much of the world, Indonesia's higher education sector has undergone significant change in the past few decades. The sector has gone from providing tertiary education to a privileged few, to a massive endeavour where more students now have the opportunity to access higher education⁶. For instance, in 1950 there were only 10 higher education institutions in Indonesia, today there are more than 4300.

Along with broadening educational opportunities, Indonesian universities have also proactively acted to lift the quality of their research. Academic research as a component of the knowledge sector has come to be recognised as playing an important role in shaping national policy. Especially since decentralisation, local governments across the archipelago have increasingly called upon academics to undertake research on policy-related issues⁷.

Beyond its potential impact on policy, a nation's research capability has significant implications for its global competitiveness. A World Bank report suggests that an established knowledge sector not only allows countries to generate new knowledge, but also to engage in scholarly and scientific commerce with other nations⁸. Observers also argue that building strong national research systems not only stimulates the supply of knowledge, which can influence policy, but that Indonesian universities in particular have the potential to create demand for such research by educating future generations of decision-makers. Exposure to quality research will indeed "generate a critical mass of consumers who have a commitment to evidence-based policy"⁹.

At an institutional level, an increased focus on research means Indonesian universities are placing more emphasis and priority on academic research outputs. There is now added pressure to publish in international academic journals to achieve credits necessary for promotion and tenure¹⁰. Indonesian academics face the same pressures as academics globally to generate knowledge both as a scholarly pursuit, as well as an increasingly important measure of success for career progression.

The shift towards quality research in Indonesian universities has been supported by increased government funding for students to undertake higher degree studies abroad¹¹. However, Indonesian universities have yet to develop a broader capability to support high quality research among their academics. To date, universities have generally struggled to compete with their ASEAN counterparts in terms of rankings. While some Indonesian universities have increased their global ranking position, a sentiment remains that generally low rankings risk diminishing Indonesia's capacity for competitiveness in the knowledge sector¹².

6 Van Deuren, R. (2013). Capacity development in higher education institutions in developing countries. Working Paper No. 2013/30, Maastricht School of Management, the Netherlands. Available at: <ftp://ftp.repec.org/opt/RePEc/msm/wpaper/MSM-WP2013-30.pdf>

7 See Ford, M. (2012). Mechanisms for building research capacity in Indonesia's knowledge sector through Australian universities. AusAID's Tertiary Education and Knowledge Sector Unit, p. 3. Available at: <https://dfat.gov.au/about-us/publications/Documents/building-indonesian-research-capacity-aust-universities.pdf>

8 See World Bank (2000). Higher education in developing countries. Peril and promise. Washington DC, World Bank, p. 42.

9 See Ford, M. (2012). Mechanisms for building research capacity in Indonesia's knowledge sector through Australian universities. AusAID's Tertiary Education and Knowledge Sector Unit, p. 3. Available at: <https://dfat.gov.au/about-us/publications/Documents/building-indonesian-research-capacity-aust-universities.pdf>

10 The Reality Check Approach + Project Team, (2017). Perspectives and Experiences of the Research Culture at Universities in Indonesia. Jakarta: Palladium. Available at: http://www.reality-check-approach.com/uploads/6/0/8/2/60824721/study_14_v6_web.pdf

11 Rakhmani, I., & Siregar, F. (2016). Reforming Research in Indonesia: Policies and Practices. Available at: <http://gdn.int/admin/uploads/editor/files/GDN%20-%20Working%20Paper-Indonesia%20-%20final.pdf>

12 Burhanuddin (2016) Positioning Higher Education Performance in Indonesia: A Global Update. Available at: <http://ap.fip.um.ac.id/wp-content/uploads/2016/03/37-Burhanuddin.pdf>



Many factors impede research capability at institutional and individual levels. The bureaucratic and technocratic approach to research that emerged in the New Order “still impinges on social research productivity and critical thinking among Indonesian researchers.”¹³ The inadequate and short-term nature of research funding has also been cited as a key impediment to academics’ ability to engage in high quality research¹⁴.

Further factors include lack of an enabling environment (or a lack of ‘research culture’), insufficient leadership practices (including a dearth of senior academics with PhDs), and high administrative demands placed upon academics’ already restricted time, along with often opaque recruitment processes¹⁵.

The aforementioned barriers also have gendered implications. Prevailing gender norms in Indonesia deem childrearing as largely a female role. While previously an academic job was often seen as compatible with a more balanced family life, the increasing administrative burden of academia, along with smaller class sizes which require more intensive teaching loads, can create barriers to conducting research for women academics with young children¹⁶. As such, Rakhmani and Siregar¹⁷ found among the eight universities that it surveyed, women made up 40 per cent of researchers, with no actions currently in place to increase the number of women in research.

Solutions to improving researcher capability generally take a two-pronged approach – ‘top-down’ (focuses on structural changes at the sectoral/institutional level) and ‘bottom-up’ (solutions that provide individual academics with the skills and opportunities to pursue research excellence).

PAIR primarily adopts a ‘bottom-up’ approach to building researcher capability, but through its governance structures, network building and participation in the research process, PAIR will seek to influence structural change, particularly at an institutional partner level. It will do this by sharing best practices, benchmarking activities and through continuous engagement and communications.

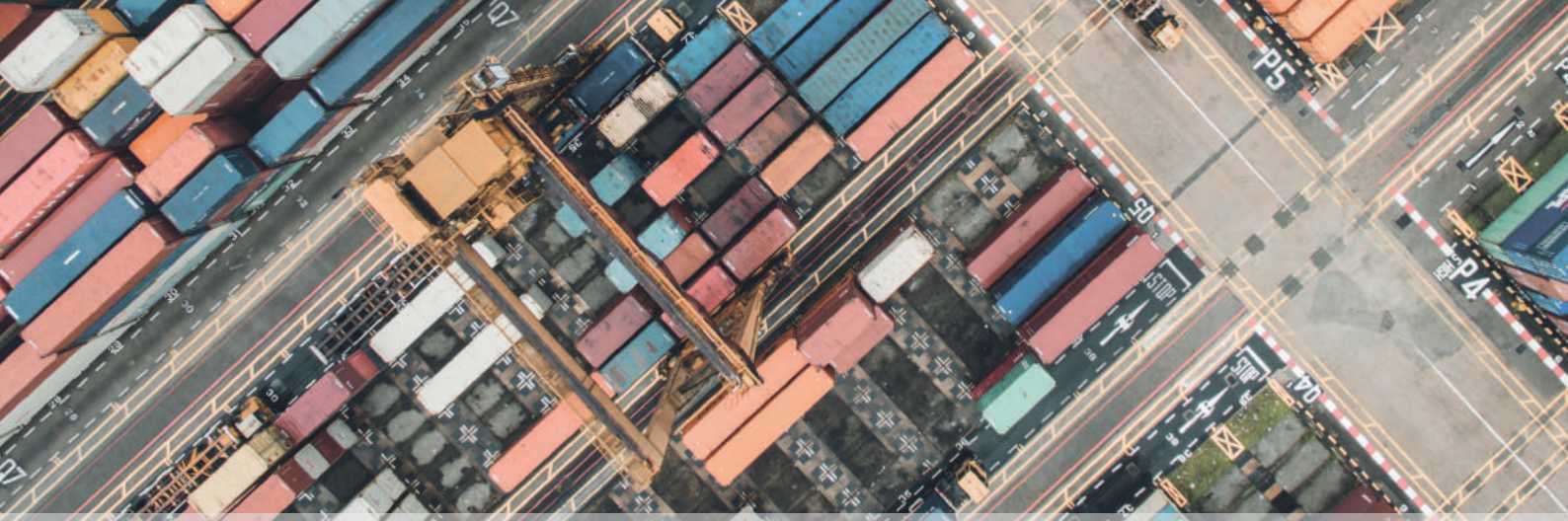
¹³ Burhanuddin (2016)

¹⁴ Suryadarma, D., Pomeroy, J., & Tanuwidjaja, S. (2011). Economic factors underpinning constraints in Indonesia’s knowledge sector. Report commissioned by AusAID’s Tertiary Education and Knowledge Sector Unit. Available at: <http://dfat.gov.au/about-us/publications/Documents/indo-ks2-economic-incentives.pdf>

¹⁵ The Reality Check Approach + Project Team (2017); Rakhmani & Siregar (2016); Burhanuddin (2016)

¹⁶ The Reality Check Approach + Project Team (2017)

¹⁷ See Rakhmani & Siregar (2016), p. 43



Evidence Base/ Lessons Learned

Addressing the complex and multifaceted nature of Indonesia's development challenges aligns with the Indonesian Government's research agenda – the National Research Master Plan 2017-2045 and RISTEK-DIKTI's National Research Plan. PAIR responds to RISTEK-DIKTI's plan in two ways: the focus on energy, health and transport fits firmly within RISTEK-DIKTI's priority research areas; and the emphasis on building human resource capability in research.

In addition to supporting Indonesia's development priorities, PAIR is firmly aligned with the Australian Government's Foreign Policy White Paper. It serves the White Paper's overall intent for a stable, prosperous and resilient Indonesia. It strengthens the maturing and mutually beneficial partnership that is reinforced by growing economic ties and more diverse links through business, education and cultural exchanges. The substance of PAIR contributes to furthering the development of infrastructure, skills and institutions.

PAIR builds on lessons learned during The Centre's four-year research program. It leverages learnings on how researchers work effectively in international, bilateral and collaborative contexts. It will also continue to foster and enable researchers to work in interdisciplinary teams and across cultures. The Centre has successfully built a knowledge network, a researcher base and a research method to tackle complex urban-rural challenges such as: how to make electricity accessible and sustainable for rural communities; building sustainable, resilient and smart port cities; early prevention of non-communicable diseases especially for young people; developing water leapfrogging strategies in cities; and tackling sustainability and profitability in commodity farming. All of these learnings will inform the PAIR program.

Strategic Setting and Rationale for Australian/DFAT Engagement

Australia's aid program in Indonesia has focused on three main areas: economic growth, human development, and stability and inclusion. This reflects the evolving development trajectory of Indonesia, and subsequent shift from a traditional aid donor/recipient relationship to a broader economic partnership that benefits both nations. PAIR will contribute to the broadening of the partnership: by drawing together institutions and people around a common challenge; and through its research approach engage stakeholders as partners in problem-setting and co-creating solutions. Alongside broadening the partnership, PAIR will also contribute to strengthening the capability of researchers, especially early career researchers in undertaking applied, interdisciplinary and team-based research. Through PAIR's overarching objective and EOPOs, it will contribute in particular to RISTEK-DIKTI's knowledge and human capital development priorities.

The PAIR program seeks to support the Australian and Indonesian Governments' economic partnership and development objectives in the following ways:

- » PAIR's alignment with Objective 3 of the Indonesian Aid Investment Plan 2015 to 2019 'An inclusive society through effective governance'. The program does this through its aim to improve research, and contribute to better quality evidence-based research being relevant to key challenges within the policy-making sphere.
- » The DFAT/Australian Government focus is also aligned with Indonesia's Medium-Term Development Plan (RPJMN 2015-2019). The PAIR program will establish a collaborative team-based model to produce evidence-based research relating to a specific

development challenge. The demand-driven research delivery model engages local, provincial and national governments, as key stakeholders, in the research process, ensuring that evidence and analysis are of direct relevance and therefore more likely to inform policy decisions.

- » Addressing key elements of the 2030 Agenda for Sustainable Development and the United Nations (UN) Sustainable Development Goals (SDGs), which identify affordable and reliable energy, improved access to water and sanitation and healthy lives as key elements of development.
- » Continuing to work closely with key Indonesian ministries – RISTEK-DIKTI, BAPPENAS and other relevant ministries on areas relevant to PAIR. The Centre has a current Memorandum of Understanding (MOU) with RISTEK-DIKTI.

The Indonesian Government's Research Master Plan 2017-2045 explicitly highlights the need to adopt an integrated and interdisciplinary approach to research that works across sectors to deliver solutions to Indonesia's development challenges. In keeping with this, PAIR's research and partnership approach will engage inputs from across the sectors – community, government and industry. It will focus its research on four areas: transport, energy, water and young people (health, wellbeing and economic empowerment) – not as stand-alone areas, but in an interdisciplinary way.

These areas are recognised as priority research for the Indonesian Government in meeting its national goals. PAIR's particular focus on young people recognises Indonesia's large, young demographic bubble, where about 67 million (28 per cent) of its population are between the ages of 15-24 years, making it the third largest cohort in the world after India and China. It also recognises Indonesia's future 'demographic dividend' - where its changing age structure means that more people are in the economically productive stage of their lives¹⁸. Issues relating to health, wellbeing, skills and enterprise development become important factors in Indonesia realising its demographic bonus.

PAIR will seek to collaborate and share knowledge with similar DFAT-funded programs such as KSI, KIAT, J-PAL and Pulse Lab. The Centre is already co-located with KSI in Jakarta and will invite KSI to be part of the Research Advisory Panel, continuing to strengthen and deepen the partnership. PAIR's research process shares similarities with Pulse Lab, J-Pal and KSI, creating opportunities to share best practice and lessons learned. Other opportunities to collaborate include:

- » Identify opportunities to hold joint activities, communicate research findings, share research and improve research uptake;
- » Coordinate research, where relevant, to strengthen evidence-informed policy making.

Innovation and Private Sector Engagement

Communities gain from productive interactions with universities and researchers. Over the last four years, The Centre has developed genuine partnerships with 50 public and private sector organisations in Australia and Indonesia. PAIR will continue to build on these partnerships and extend them in the following ways:

- » Develop industry links in South Sulawesi through the research program;
- » Involve industry where relevant in problem-setting, solutions co-creation and advising on commercial pathways;
- » Where relevant, secure industry co-investment (cash and/or in-kind) in support for PAIR research projects.

¹⁸ Hayes, A. & Setyonaluri D. (2015). Taking Advantage of The Demographic Dividend in Indonesia: A Brief Introduction to Theory and Practice, UNFPA Indonesia: Jakarta.

INVESTMENT DESCRIPTION

Logic and Expected Outcomes

The Australian and Indonesian Governments recognise the importance of knowledge production and research capability building to support development planning and policy-making. PAIR responds to this priority by leveraging the Centre's partnership model to contribute to the Government of Indonesia's sustainable development priorities through evidence-based decision-making. The model involves Australian and Indonesian research-intensive universities and a network of interdisciplinary researchers collaborating on generating evidence-based knowledge and contributing to developing the research capability of Indonesian researchers. The objective of PAIR is to develop a proof of concept that demonstrates a research pathway to impact model that can be scaled or replicated across any problem or location in Indonesia (See Annex A: Theory of Change).

The Program seeks to achieve this through two End-of-Program-Outcomes (EOPOs):

- » EOPO 1: Better quality of evidence-based research relevant to and addressing key policy challenges in South Sulawesi;
- » EOPO 2: A network of researchers competent in conducting demand-driven and interdisciplinary team-based research.

EOPO 1: Better quality of evidence-based research relevant to and addressing key policy challenges in South Sulawesi

PAIR will pursue better quality of evidence-based outcomes through a focused research agenda that seeks to grow a quality research network, develop Indonesian researcher capability and produce solutions-focused evidence for policy-making and private sector development.

EOPO 2: A network of researchers competent in conducting demand-driven and interdisciplinary team-based research

Integral to PAIR, is researcher capability development, especially for Early Career Researchers (ECRs). High-quality development occurs through participation in PAIR's research process and embedded training. Through PAIR, capability development will occur in two ways:

- » Team building and networking activities: researchers develop different sets of skills and gain invaluable experience working on challenges across national boundaries and in a team-based context. Through the research process, PAIR will foster bilateral team-based collaboration, nurture constructive dialogue within teams and create a supportive environment to empower researchers to collaborate in a cross-cultural context.
- » Talent Accelerator: masterclasses aimed at building capability to undertake demand-driven and interdisciplinary team-based collaborative research. Monitoring, evaluation and learning components will also be built into training in order to provide researchers with the opportunity to reflect on their team's work and monitor their projects in line with the MELF (see Figure 2.2 – PAIR Research Process and Deliverables).

Research Themes

PAIR's research theme is Future Islands: Connectivity, People and Place, to be conducted in the Province of South Sulawesi. It is through this thematic lens that PAIR seeks to better understand Indonesia's changing context, development challenges and aspirations.

Connectivity, especially port-city-rural, is important for poverty alleviation, sustainable rural development and urbanisation. Strong physical linkages can improve the living conditions, market access and employment opportunities of rural communities. Indonesia is investing in improving Sulawesi's infrastructure and connectivity. Makassar for example, is constructing a new port as a gateway to eastern Indonesia. By 2020, it plans to complete a new railway line between Makassar and Parepare – a segment of its ambitious Trans-Sulawesi railway network. Connecting two cities and many rural towns along the way will have a significant impact, yet create new opportunities for local communities. PAIR will focus on these newly connected communities and seek to understand how they can respond to change and take advantage of emerging opportunities.

In **People**, PAIR will focus on young people – adolescents between the ages of 15 to 24 years old¹⁹ – Indonesia's largest demographic group and a dominant cohort for The Centre's partner universities who already cater for this group through educational programs and engagement activities. SDGs 2030 established that young people are a driving force for development – but only if they are provided with skills and opportunities needed to reach their potential, support development and contribute to peace and security. The Program will take an interdisciplinary approach by linking the health and wellbeing of young people with economic empowerment to help transform generations to come across communities.

¹⁹ List stage characteristics – Transitional youth (adolescent youth) 15-19 age group - At school / leaving school / starting postschool education; first time job seekers; single / living with parents / financially dependent / non-autonomous decision makers / sexually curious. Establishing youth 20-24 – completed / completing postschool education; exploring work opportunities, leaving home/seeking partners envisioning marriage/getting married and having the first baby (especially females); financially semi-dependent / semi-autonomous decision maker – see Adioetomo, S.M, Posselt, H. & Utomo, A., 2014, Youth in Indonesia, UNFPA Indonesia Monograph Series No. 2, July, p.5



In **Place**, PAIR anchors its research in the Province of South Sulawesi. The Province already features prominently in The Centre's, and its partners', existing work – from exploring the impact of the health of farmers on agriculture, adolescent health and wellbeing, to renewable energy solutions and revitalising informal settlements and their environments. Sulawesi also fits with Indonesian priorities to which it serves as an important trade gateway and hub for eastern Indonesia.

Research Programs

PAIR will explore these themes through three research programs – Community Centric Infrastructure, Empowered Communities and Impact and Adoption Pathways.

Community Centric Infrastructure will focus on the nexus between transport, energy and water.

- » In transport, we will look to enable sustainable citizen-centric infrastructure, logistics and supply chains and contribute ideas and solutions to improve the connectivity between ports, cities and rural areas.
- » In energy, we will build on the work done by The Centre and continue to pursue affordable and equitable access to sustainable energy for communities in South Sulawesi.
- » In water, our researchers are already finding new ways for cities to leapfrog traditional stages in building core urban water infrastructure. We will explore opportunities to apply similar leapfrogging strategies to enable communities to adopt water sensitive practices.

Empowered Communities will focus on young people – adolescents between the ages of 15 to 24 years old. We will take an integrated approach by linking the health and wellbeing of young people to economic empowerment with the aim of improving their economic and social wellbeing.

- » Examples of issues we will consider include mental health, personal safety and security, women's empowerment, health literacy and enterprise development opportunities.

Impact and Adoption Pathways will focus on what is needed to deliver change - from creating enabling environments to changing attitudes and developing skills capability.

Three Principles

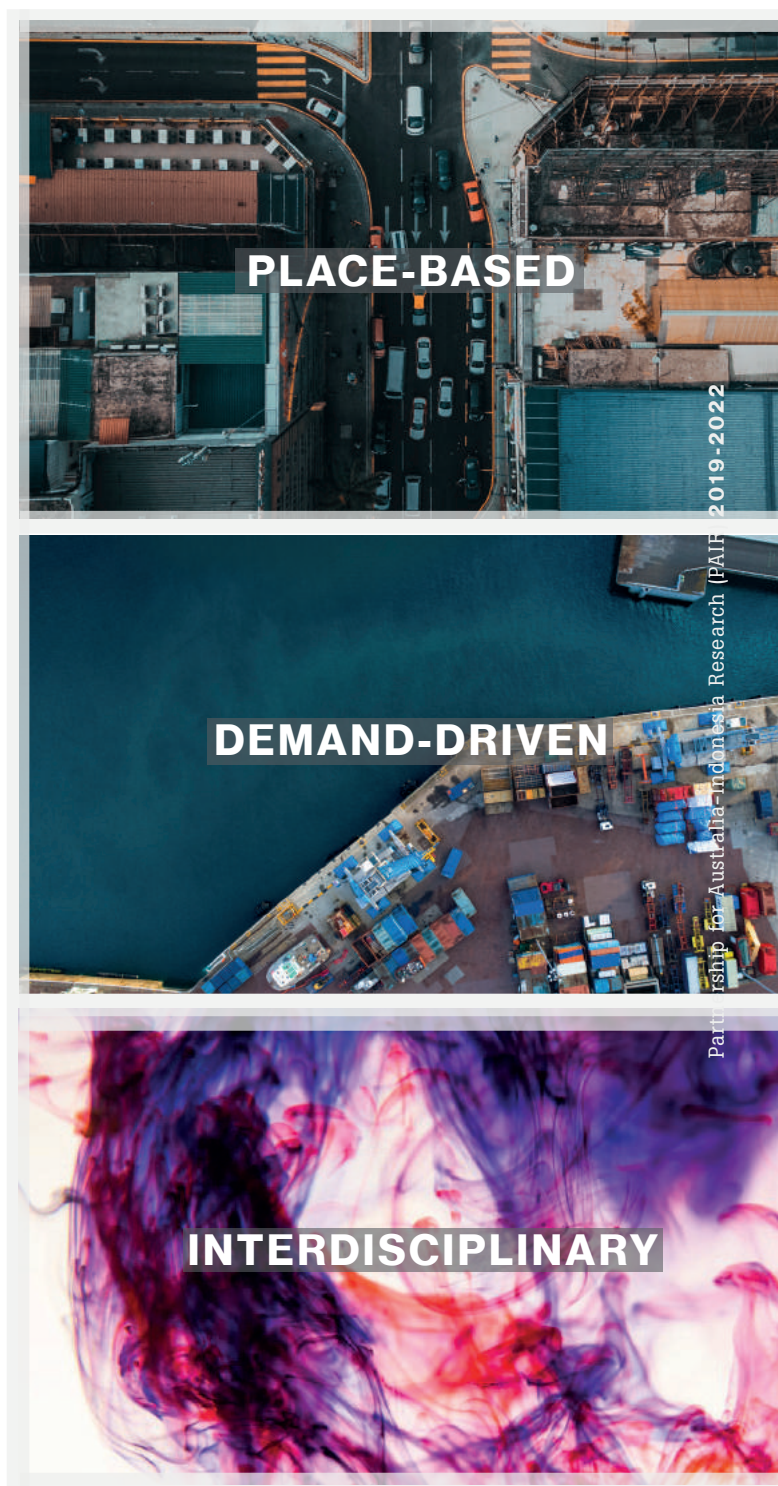
PAIR explores connectivity, people and place not as standalone issues, but as an integrated challenge. To tackle this challenge, three principles will underpin PAIR: **place-based**, **demand-driven** and **interdisciplinary**.

1. Place-based: PAIR moves from many – Centre research is currently undertaken across 17 locations and 74 sites – to one major location. South Sulawesi will be the place of focus. By moving from many to one, PAIR can better direct the work of the research network and concentrate its activities. One location also makes it possible for researchers to engage meaningfully with real communities, immerse themselves in real settings and work with communities to tackle real challenges. PAIR defines place-based as stakeholders engaging in a collaborative process to address issues as they are experienced within a geographic space, be it a neighbourhood, a region or an ecosystem²⁰.

2. Demand-driven: PAIR shifts from being researcher-led – a key feature of The Centre’s previous research model – to adopting a demand-driven approach. ‘Whose demand’ is determined through the research process which involves engaging various stakeholders (from government, business and affected communities) at national, provincial and local levels in constructive dialogues and involving them in problem-setting and solutions co-creation (see Figure 2.1 Research Process). By engaging stakeholders throughout the research process, the likelihood of ideas and solutions being embraced, and potentially adopted, increases significantly.

3. Interdisciplinary: Real world problems cross disciplines. To solve challenges facing urban and rural communities in South Sulawesi – transport, energy, water and young people (with particular focus on health, wellbeing and economic empowerment) – scientists and social scientists must work together. PAIR will take an interdisciplinary team-based collaborative approach. Through support from partner institutions and the research process, PAIR will draw together a team of experts with diverse perspectives and disciplinary knowledge to integrate ideas, data and methods and apply them to research problems.

²⁰ Bellefontaine & Wisener, 2011.



Delivery Approach

The PAIR delivery approach draws on The Centre's existing partnership network of universities. Partnership agreements with Australian and Indonesian universities will be finalised during PAIR's inception phase, in addition to an implementation agreement with RISTEK-DIKTI, to build on the existing MOU. University partnerships are central to PAIR's theory of change. Research leads from each institution will be appointed to participate in PAIR. Supporting the research leads are domain experts (technical and non-technical) and Early Career Researchers (ECRs). PAIR will draw experts from the key areas of focus (transport, energy, water and young people) and related fields where necessary.

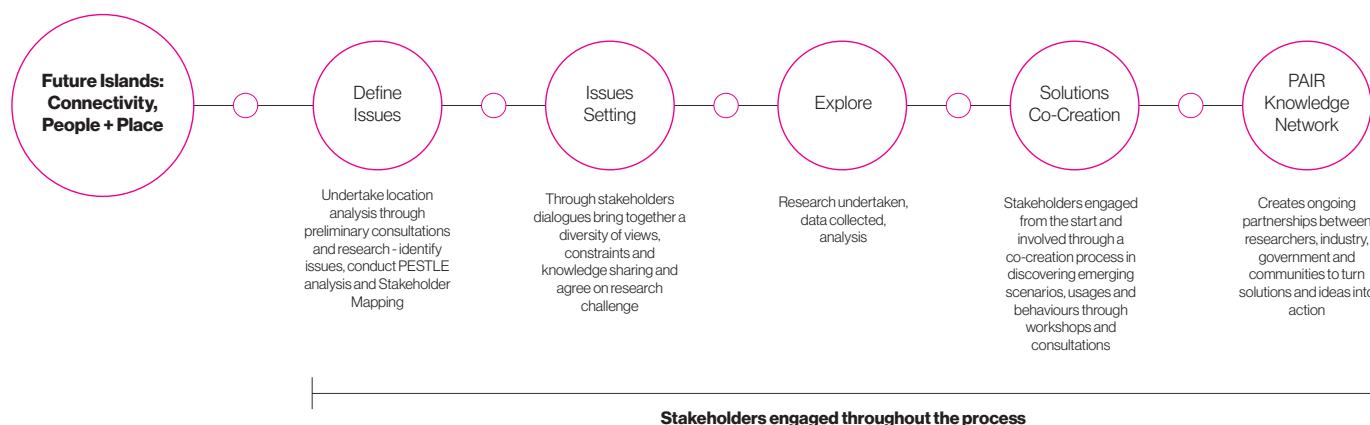
The Program Management Team (PMT) and The Centre will support researchers in research management, strategic communications and identifying further opportunities to spin-off or scale-up research. The PMT will work closely with Hasanuddin University, based in Makassar, South Sulawesi, to enable program implementation. This role will be further defined and established through a partnership agreement.

Research Process

PAIR's approach significantly increases its ability to deliver an effective model for research pathways to impact. Impact takes various forms. From interdisciplinary researchers working together across borders to identify a problem and using evidence to influence change, to effective researcher-stakeholder partnerships that lead to ideas being embraced and adopted. Impact however requires two things: a genuine collaboration between researchers, government, industry and affected communities; and an enabling and supported process that fosters ongoing collaboration between these groups.

To facilitate genuine collaboration, PAIR will adopt a process – based on past learnings – that is applied, user-centric and anchored to the local context. The research process has five key elements: define issues; issues setting; explore; solutions co-creation; and development of a PAIR Knowledge Network (see Figure 2.1 Research Process).

Figure 2.1 Research Process

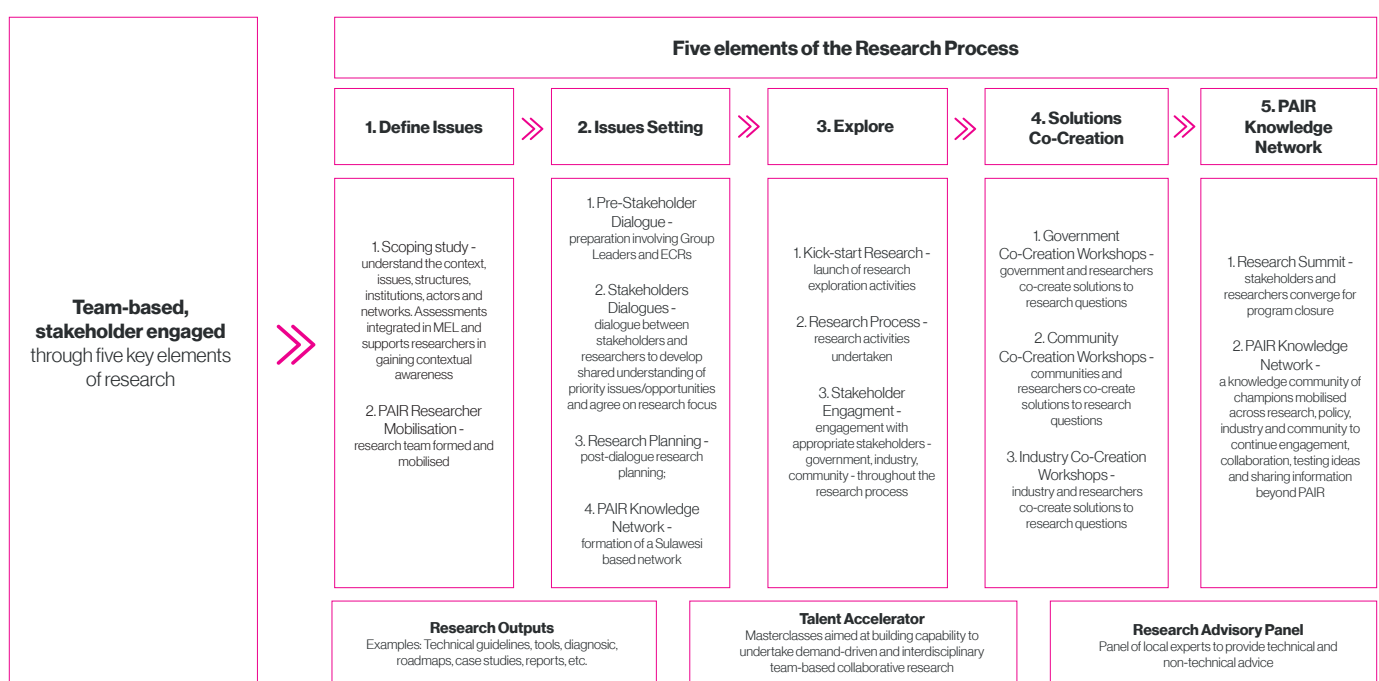


The research process is an important way of creating stronger and deeper networks. It seeks stakeholder ‘buy-in’ at all levels – national, provincial and local. If done well, the process will foster an open, collaborative, multi-sectoral and networked approach to research.

It’s through the research process that PAIR brings together researchers, industry, government and community members to integrate interdisciplinary outputs and insights, while simultaneously enhancing research capability and strengthening the bilateral research network. The process involves five important deliverables:

- 1. Team-based, stakeholder engaged research:** a range of activities undertaken during the research process to support researchers and stakeholders to generate practical ideas and designs for specific contexts (based on geographic, demographic, governance and institutional settings). Examples of activities include: stakeholder workshops, stakeholder-oriented synthesis projects, and stakeholder focused case studies. Through this engagement, we seek to establish enduring connections and grow linkages;
- 2. Research outputs:** these include technical guidelines, tools that support actions, diagnostic frameworks, roadmaps, practical case studies, reports and articles, including in scientific journals. These outputs will lead to a better shared understanding of the challenges facing newly connected communities;
- 3. Talent Accelerator:** a series of masterclasses embedded in the research process that takes a ‘learning by doing’ approach to build capability of researchers and early career researchers to undertake demand-driven, bilateral, interdisciplinary team-based collaborative research;
- 4. Research Advisory Panel:** a panel of local experts to assist with technical and non-technical advice;
- 5. PAIR Knowledge Network:** established early in the project, this is where solutions and ideas are turned into action. The network engages ‘knowledge champions’ mobilised across research, policy, industry and community to continue engagement, collaboration, test ideas and share information beyond the PAIR program.

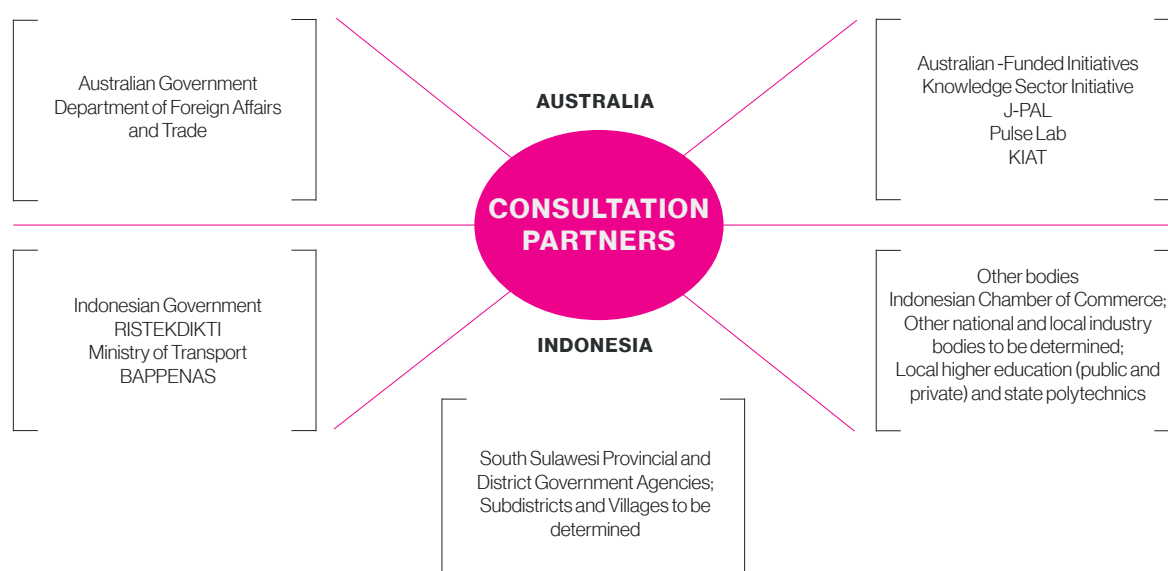
Figure 2.2: PAIR Research Process and Deliverables



Stakeholder Engagement

An important element of PAIR is engaging stakeholders as consultation partners throughout the research process. In addition to partnership agreements with universities and RISTEK-DIKTI outlined above, Monash University signed an MOU with the Indonesian Ministry of Transport in early 2018, which will facilitate collaboration on transport related research projects. In South Sulawesi, we will engage the newly elected provincial government prior to PAIR's inception to identify a key government agency at the provincial and district levels as a coordination point, such as the Provincial and District Agencies for Development Planning (See Figure 2.3). The partners listed will be further refined through a stakeholder mapping exercise during the research process.

Figure 2.3: Stakeholder and Consultation Partners



Resources

The Australian Government will invest A\$8 million in this 4-year initiative to begin in January 2019.

PAIR Operations will be staffed by a team of dedicated staff comprising two staff based at The Centre in Melbourne and two staff based in Makassar. In addition to these dedicated staff resources, The Centre's core staff will provide leadership to PAIR, contribute to PAIR through the governance structure, and support implementation of PAIR in areas including, communications, stakeholder engagement, financial management and reporting.

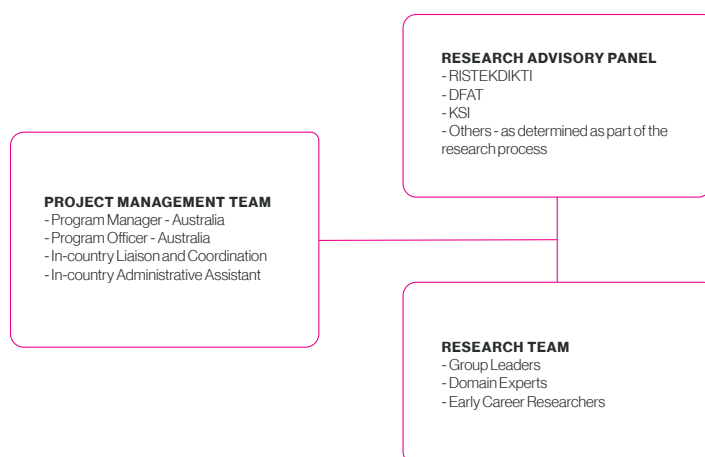
IMPLEMENTATION ARRANGEMENTS

Management and Governance Arrangements and Structure

The PAIR Governance Structure is set out in Figure 3 below:

GROUP OR TEAM	RESPECTIVE ROLE AND RESPONSIBILITY
<p>The PAIR governance structure will build on established relationships with partner universities, corporate partners and research advisory partners. The advantage of the program's governance structure is that overarching program aims will be guided by high level decision makers and public policy influencers.</p>	
RESEARCH ADVISORY PANEL (RAP): Program oversight and senior level advisory	<ul style="list-style-type: none">» The Research Advisory Panel (RAP) will meet every six months to ensure progress against EOPOs, monitor risks and maintain alignment with the Indonesian and Australian Government and other stakeholder priorities.
PROJECT MANAGEMENT TEAM (PMT): Operational support, direction and joint planning (based at The Centre, Monash University, Australia) Makassar-based personnel undertake day-to-day operations and joint planning with PMT members.	<ul style="list-style-type: none">» The Project Management Team (PMT) (housed within The Centre at Monash University and in country in Makassar) to manage program and stakeholder relationships. Monash based staff will provide direction and undertake joint planning with the team members based in South Sulawesi.» Team members based in South Sulawesi will manage the day-to-day operations of the program from Makassar, to implement the process of co-design, joint planning and actions.» The PMT will be responsible for stakeholder management and implementation of the PAIR research plan.» The PMT will have additional quarterly meetings and facilitate program goals through the strategic management of operations. This includes the development and implementation of frameworks, policies and procedures and the provision of financial, resource and research operations management.» In addition, the PMT will develop and maintain networks with key stakeholders internal and external to build collaborative alliances and support the development of external funding opportunities.» PMT will manage, monitor and undertake budget, financial and resource planning responsibilities for the program (including overall responsibility for managing annual planning activities), monitor research and financial trends and performances and lead the reporting on progress against indicators.» PMT will be responsible for all communications and dissemination of PAIR research findings.

Figure 3: PAIR Governance Structure



Implementation Plan

The PAIR Phased Approach to Implementation is set out below. For the Research Process and deliverables – see Figure 2.2 on p. 13.

PARTNERSHIP FOR AUSTRALIA-INDONESIA RESEARCH (PAIR) (4 Years: 1 January 2019 - December 2022)		
Phase 1: Inception Year 1: 1 January 2019 - 30 June 2019	Phase 2: Implementation Year 1 - 4: July 2019 - June 2022	Phase 3: Review Year 4: July - December 2022
The focus will be to establish: <ul style="list-style-type: none"> » Operations – program management, systems, reporting, time-frames » Partnerships – early (re-)engagement » Deliverables – overall plan to 2022 » Detailed plan for July 2019-June 2020 » Update of PAIR Risk Register » Refine Monitoring, Evaluation and Learning Framework (MELF) » Membership and Terms of Reference of RAP » Complete Research Process Component 1 (Identify issues) and Component 2 (Define challenge) » Inception Reporting to DFAT 	The focus will be to: <ul style="list-style-type: none"> » Operations – implement sound program management » Partnerships – build on partnerships to inform the annual cycle of stakeholder consultation (see Figure 7: Stakeholders) and activities that are key to activities and outputs across EOPO 1 and 2. » Mid-term review in late 2020 It will focus on program work and deliverables: <ul style="list-style-type: none"> » Component 3: Explore » Component 4: Co-create solutions » Component 5: PAIR Knowledge Network » Annual Reporting to DFAT 	The focus will be to: <ul style="list-style-type: none"> » Build on earlier Phases program management, partnerships and deliverables focus It will also focus on: <ul style="list-style-type: none"> » Research closure » Strategic communications – to stakeholders » Annual reporting to DFAT



Procurement Arrangements, Financial Management and Fraud

The Monash University corporate system will be used to manage program finances, with the assistance of an in-country partner to oversee Indonesian expenses and acquit funds, where required. In relation to fraud and corruption, Monash University takes a 'zero tolerance approach', which aligns with DFAT's zero tolerance to fraud policy. Any instances of fraud or corruption will be immediately reported to DFAT.

PAIR will adhere to Monash University's Fraud and Corruption Policy and common standards implemented across partners in line with DFAT requirements (see Annex D for Monash University's relevant guiding policies).

The Centre will use a limited funds management approach for the program to ensure that it is the single point of fiduciary risk management responsibility. Funds transfers will be managed by the PMT based in Australia. The delivery of project funds will be bound by a research contract, which clearly outlines the disbursement triggers that apply to each project.

Research grant guidelines and contracts will require all researchers to comply with Monash University's fraud control policy and practices, and will provide a link to the relevant policies. Monitoring and accountability procedures will be implemented and communicated to researchers as part of on-boarding processes in order to mitigate risk of downstream fraud.

All staff, researchers, volunteers, contractors, sub-contractors, grantees or any other person working in a voluntary capacity with the Centre will be made aware that they must adhere to the Monash University fraud control policies.

Monitoring, Evaluation and Learning (MEL)

MEL Approach

The MEL Framework (MELF) will be refined during inception through a series of workshops with researchers on the Program's Theory of Change (TOC). These workshops will also provide an opportunity to familiarise researchers and staff with key elements of PAIR policies. DFAT MEL standards will be used as the basis for the MELF, as well as other research focused development programs' approaches to MEL.

The MELF aims to support good governance (accountability) and program quality (learning) and inform decision making for continuous improvement of the program. MEL will be included as a standing agenda item at quarterly PMT meetings and six-monthly RAP meetings. As PAIR aims to provide a proof-of-concept, generating evidence that the research model works will be key to its scalability. The PMT have a role to play in generating this evidence, through the MELF, but it will also be part of the research program focused on impact and adoption pathways.

The framework aims to be inclusive of all stakeholders, including on the grounds of gender and disability, and practical and feasible to implement given PAIR's scope and capacity.

The Program Manager will lead on implementation of the MELF, supported by the ICMT. A MEL specialist will oversee the development of the framework, as well as provide ongoing support to mentor the PMT. The PMT will review the MELF at three-monthly planning / review meetings. A mid-term review will be conducted in late 2020.

Key evaluation questions include:

EOP01: Better quality of evidence-based research relevant to and addressing key policy challenges in South Sulawesi

Is the research model able or likely to be scaled or replicated (sustainability / effectiveness / efficiency / relevance)? This question also relates to EOP02.

Did the key research principles (place-based, demand driven, interdisciplinary, GESI) enable better quality evidence-based research, that addresses key policy challenges in South Sulawesi (effectiveness / relevance)?

EOP02: A network of researchers competent in conducting demand-driven and interdisciplinary team-based research

Did the network of researchers and universities support the research model and principles and researcher capability development (effectiveness / relevance / sustainability)?

Did early career researchers build capability through their involvement in the research process and talent accelerator programs (effectiveness / relevance)?

STAKEHOLDER	MEL ROLE
Key MEL stakeholders for the PAIR program include: <ul style="list-style-type: none"> » Research Advisory Panel (RAP) including DFAT Desk and Post, RISTEK-DIKTI » Program Management Team (PMT) 	
Research Advisory Panel (RAP)	The PAIR RAP will meet six-monthly to review PMT reports on monitoring and evaluation of progress to date and implementation issues. This will include reporting at the outcome level against the MELF and feeding into DFAT's annual reporting.
Project Management Team (PMT)	<p>The PMT will meet quarterly to monitor the program, its progress and component work programs, budgets, performance and operations. These reviews will be central to reporting on monitoring and evaluation of the program.</p> <p>The PAIR Program Manager will oversee monitoring and evaluation during the inception phase of the program, and then through review of quarterly progress reports from PMT against the MELF.</p> <p>In addition to PAIR's RAP and PMT roles, the PAIR Program Manager – assisted by the Program Coordinator and the In-Country Manager – will directly manage and report on work programs, budgets and performance, including:</p> <ul style="list-style-type: none"> » finalising the MEL Framework (MELF) and quarterly reporting against the MELF and monitoring of GESI indicators » establishing KPIs to monitor outcomes and outputs » developing data sources for these KPIs, including baseline data » arranging means to both gather and report on data.
DFAT	The DFAT Program Manager will monitor and report on PAIR's program delivery through information provided by PMT. This is in addition to their RAP role.



Sustainability

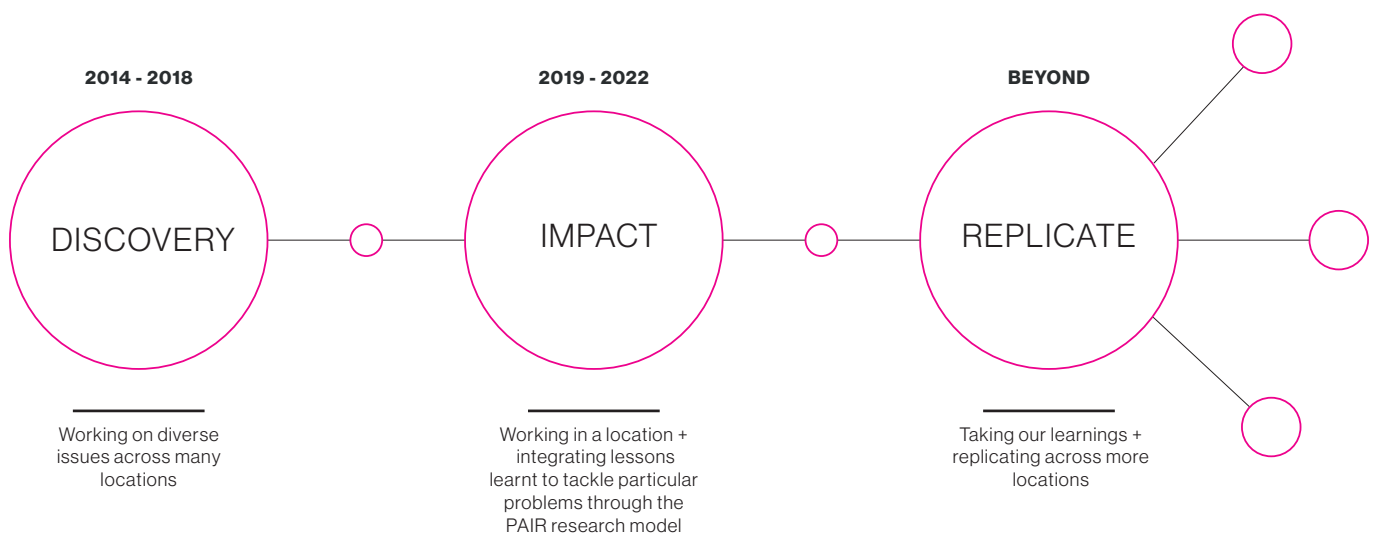
PAIR's sustainability strategy involves the following:

- » Cultivating a PAIR Knowledge Network of Australian and Indonesian champions mobilised across research, policy, industry and community to continue engagement, collaboration, testing ideas and sharing information beyond PAIR;
- » Policy-makers' exposure to quality research will generate a stronger interest and commitment to evidence-based policy.

By the end of 2022, the PAIR model will deliver better quality, evidence-based research that is relevant to and will address key policy challenges in South Sulawesi. The model will also strengthen a network of researchers that are capable and comfortable in undertaking demand-driven research and collaborating in international, multi-institutional and interdisciplinary team contexts.

The model of quality evidence-based research and researcher training will also serve as a proof-of-concept that RISTEK-DIKTI or any provincial government could either scale to achieve greater impact, or replicate across any problem or location (see Figure 4).

Figure 4: From proof-of-concept to scalable impact



Gender Equality

Gender is an important cross-cutting issue for PAIR. PAIR will seek to deliver, through its research process and outputs, equitable outcomes for both men and women. In its design and governance, PAIR will ensure that gender issues are represented in terms of substantive expertise and in the numbers of women and men included in PAIR at all levels.

- » The PMT will include demonstrated expertise in the area of gender and development.
- » PAIR will also have an operational commitment to ensure GESI principles are adopted in human resources management, budget allocations, contracting and performance management.
- » Where feasible, identify approaches to enable researchers to report using sex disaggregated data.
- » Ensure equal representation in key decision making at all levels of PAIR.
- » At least 50 per cent of participants will be women, with strategic workshops to discuss the gendered challenges inherent in researcher development and career advancement for all participants, with the view to increasing greater awareness of these issues for women and men.
- » Addressing gender equality will be a criterion for all research, in addition to research targeted at gender equality and social inclusion issues.

By embedding gender considerations at every level of PAIR, from the program approach to knowledge sector development, the extent to which the sector delivers equitable policies for both men and women will determine the success of the program.

Disability Inclusiveness

PAIR program activities will be consistent with the Development for All 2015-2020: Strategy for strengthening disability-inclusive development in Australia's aid program – that aims to promote improved quality of life for people with disabilities in developing countries.

PAIR will identify where there are policies that might disadvantage people with a disability. Where opportunities exist to support knowledge-to-policy transfer, the program will focus on policies that support inclusive development.

PAIR will also identify and address barriers to participation for researchers and other stakeholders with a disability.

Private Sector

Addressing complex and major challenges requires joint effort. Over the last four years, The Centre has built a network of 50 public and private sector organisations. PAIR will continue to build on its industry linkages in the following ways:

- » Develop industry links in South Sulawesi through its research approach;
- » Involve industry where relevant in problem-setting, solutions co-creation and advising on commercial pathways;
- » Where relevant, secure industry co-investment (cash and/or in-kind) support for PAIR research projects.

Risk Management

The Risk Register details key risks, likelihood of occurrence, likely impact and overall risk rating, as well as management responsibility and a subsequent risk management/mitigation strategy.

The PAIR design considers environmental and operational risks to the program and identifies mitigation and treatment strategies to address these.

Risks will be continually monitored and managed by the Program Management Team (PMT) and the Research Advisory Panel (RAP). This will include an early revision of the Risk Register (in Phase 1 – Inception). While risk monitoring will be conducted as a component of day-to-day operations, all levels of the governance structure will address risks, such as (and not limited to):

- » The changing political climate in South Sulawesi
- » Health, safety and security of staff and researchers and local communities (including risks around child protection)
- » University / partner turnover and loss of institutional support
- » Financial flows and accountability.

The Centre has dealt with a number of these risks through its previous research activities. Proposed risk mitigation strategies detailed in the Risk Register have been informed by this experience.

The risk profile for the program has been assessed as being medium risk. The risk profile is to be reviewed on an ongoing basis, with a formal review at activity level (including safeguards – see below) to be conducted biannually and fed into the RAP to ensure management of the risk profile and effectiveness of risk mitigation strategies.

Safeguards | Child Protection

Indonesia ratified the Convention on the Rights of the Child (CRC) in 1990. DFAT's expectations, including child protection compliance standards for implementing agencies, are outlined in the Child Protection Policy (2017). This provides a risk-based approach to the management of child protection risks in the delivery of DFAT business. DFAT recognises that it is the shared responsibility of all adults to prevent child exploitation and abuse.

Child protection measures are a core consideration of PAIR as 'Young People' is a core theme of PAIR, with an age group scope of 15-24 years. Some PAIR activities may require direct contact with minors under the age of 18 in the form of interviews and surveys.

PAIR will ensure common standards in relation to child protection are implemented across partners in line with DFAT requirements. All staff, researchers, subcontractors and grantees will be required to adhere to Monash University policy (Child Safe Standards Framework) on child safety including positions assessment tool and code of conduct which outline a zero tolerance for child abuse. As part of induction to PAIR all program researchers and AIC staff will be briefed on child protection policy and protocols. All subcontractors/grantees will be required to sign up to the policy and risk controls and standards will be integrated into PAIR HR systems. Policies will make it clear that personnel who pose an unacceptable risk to children's safety or wellbeing will not be permitted to work with children. Furthermore, staff, volunteers and grantees will understand that they are responsible for being aware of their behaviour, and avoiding actions or behaviours, that could be perceived by others as child exploitation and abuse.

Reporting of any breaches of policy will be conducted through multiple formats including verbal reporting, which will be recorded by the responsible person for complaints. There will be immediate reporting to DFAT of any incident, suspected incident or violation of the policy. Two in-country positions will be the contact people for any complaints and their details will be provided to researchers and any subcontractors/grantees as part of on-boarding protocols.

Risk assessment of each activity under PAIR will be undertaken, with child protection a central point of this assessment. Furthermore, child protection risk assessment is reviewed and updated regularly by the PMT.

PAIR is committed to immediate disclosure of all charges, convictions and other outcomes of an offence that relates to child exploitation and abuse, including those under traditional law, which occurred before or occurs during association with DFAT.

