Policy impact in Lao PDR: from research to practice.

Deliverable 1

Report on determinants of policymaking and research to policy impact in Laos identified through case study ACIAR projects

Small research and development activity

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ACRONYMS

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
ADP	Agriculture Development Policy
ALDCS	Australia Laos Development Cooperation Strategy
ANU	Australian National University
AR	Annual Reports
ASEM	Agricultural Systems Management
ASTI	Agricultural Science and Technology Indicators
CDTA	Capacity Development Technical Assistance
CIAT	Center for Tropical Agriculture
CS	Crop Science
CSF	classical swine fever
DDG	Deputy Director General
DFAT	Department of Foreign Affairs and Trade
DG	Director General
DLF	Department of Livestock and Fisheries
DoF	Department of Forestry
DoI	Department of Irrigation
DOLF	Department of Livestock and Fisheries
DOPLA	Department of Policy and Legal Affairs
E&SS	Economic and Social Science
EoPR	End of Project review
EOPR	End of Project Review Reports
FAO	Food and Agriculture Organisation of the United Nations
FISH	Fisheries Projects
FLEGT	Forest Law Enforcement Governance and Trade
FMD	Foot and Mouth Disease
FPP	Full Project Proposals
FR	Final Reports
FST	Forestry Projects
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoL	Government of Laos
ICTA	International Center for Tropical Agriculture
L&AH	Livestock and Animal Health
L&WS	Land and Water
LADLF	Laos-Australia Development Learning Facility
LARREC	Living Aquatic Resources Research Centre
LLL	World Bank Lao Landscapes and Livelihood Project
LTPHI	Lao Tropical and Public Health Institute
MAF	Ministry of Agriculture and Forestry
MEM	Ministry of Energy and Mines
MoIC	Ministry of Industry and Commerce
MoNRE	Ministry of Natural Resources and Enviornment
MRC	Mekong River Commission
MTRs	Mid-term review reports
NAFES	National Agriculture and Forestry Extension Service
NAFRI	National Agriculture and Forestry Research Institute
NAFRI	National Agriculture and Forestry Research Institute
NES	National Export Strategy
NGPES	National Growth and Poverty Eradication Strategy
NSEDP	National Socio-Economic and Development Plan
NUoL	National University of Laos
ODA	official development assistance
OIE	World Organisation for Animal Health
PCN	Project Concept Notes
RPM	Research program Manager
SEACFMD	The South-East Asia and China Foot and Mouth Disease Campaign
SRA	Small Research and Development Activity
UQ	University of Queensland
VPA	Voluntary Partnership Agreement
XPCL	Xayaburi Power Company Limited

1 INTRODUCTION

In policy development, the need for supporting evidence is increasingly articulated. This 'evidence-based policy' movement can be seen in the statements of Governments and the language of partners and donors. The Government of Laos (GoL) and the Australian Centre for International Agricultural Research (ACIAR) are no exceptions.

Within ACIAR's historically pillared program areas, positivist research approaches have dominated research projects. A more recent emphasis has been on understanding the broader context in which research occurs and outcomes are aimed, including the socio-political context. 'Policy' has become a cross cutting strategic theme across all ACIAR program areas, concerned with the processes that support the translation of scientific, social and economic knowledge into policy for sustainable and inclusive economic development. However, past research projects have not been specifically designed with the requirement to deliver and provide the evidence for policy impacts. Nor have projects in Lao PDR (Laos) consistently considered, in the project design phase, mechanisms for reaching policy makers. "Communications" of research outputs have been framed quite generically, and often as an add-on to more traditional research reports and scientific publications. Incorporating the necessary research methods and expertise into research projects has been challenging, and outcomes suggests that projects have had variable success impacting policy.

In Laos, presentation of scientific evidence from ACIAR projects occurs in a unique policy-making environment; one that is often considered opaque to researchers, and difficult for them to navigate and participate in. Projects often leave such tasks to Lao counterparts, assuming it will be easier for them, and they in turn must take into account not only the aims of the project itself, but also the constraints of the policy making context and of their own role. There are various timeframes at play, the most decisive of may be either immediate or extend well beyond the life of projects; assessment of impacts also interacts with the timing of impact monitoring by ACIAR.

There remains in Laos, as in many countries, an apparent epistemological gap between research and policy making which has the potential to result in inefficient policy making processes and poor or unintended outcomes. Lack of familiarity with the mechanics of research projects, on the one hand, and of policy making contexts, processes and institutions on the other, can result in projects undertaking inadequate or inappropriate policy-focused activities with unrealistic expectations of impact, which may in turn then be assessed as 'failures' by ACIAR and/or the Lao Government. However, expecting researchers to navigate foreign policy-making cultures blindly may be an unreasonable expectation. Better understanding of research to policy pathways is necessary for ACIAR projects, in Laos and elsewhere, to plan more realistically for policy impact.

This Small Research and Development Activity asks the question:

"What processes, practices and circumstances facilitate or hinder the influence and uptake of ACIAR commissioned research within Lao policy contexts?"

There are three project objectives:

1. To better understand the culture of policy making in Laos; the processes, practices and circumstances that facilitate or hinder policy influence emanating from ACIAR commissioned research.
2. To provide a summary of determinants and experiences to assist researchers working in Laos to better align research to the policy-making environment.
3. To inform ACIAR of effective pathways and processes for engaging with policy making in Laos

This report describes the results of the project research activity 3 Case Study Analysis and includes a context-setting review of ACIAR corporate documents. The concepts, methods and analytical frameworks used in this study are presented in a separate report.

2   CONCEPTS AND METHODS

A detailed description of concepts and methods used in this study is provided in "Deliverable 2 Report on Concepts, Methodology, Methods, and Analytical Framework" (Smith et al 2022). A summary of the concepts and conceptual framework and the methods applied to the case study analysis described in this study are summarised below.

2.1   Conceptual framework

The exploration of the core concepts resulted in the development of a conceptual framework for the project, presented in Figure 1. In developing this we place people at the centre of our framework, as the agents of knowledge creation and transfer to policy (and vice versa), and as policy practitioners. Here we propose that policy and policy making are peopled processes; polices are designed by people and implemented by people to change the way that people behave; people may be the agent of change and/or the subject of the policy, or both. We also recognise that people may play peripheral, connecting or bounding roles and their functions will vary based on their nature which will be determined by various social, cultural and political factors. Our consideration of these roles draws on the work Odendahl and Shaw (2011), Bogner et al (2018), Weissman et al (2020), Baker et al (2020) and Lipsky (1980), as well as others. In thinking about research-policy relations we build on the two spheres (or 'two communities' as coined by Caplan (in Edwards 2004) of "research" and "policy" (Boswell and Smith 2016)
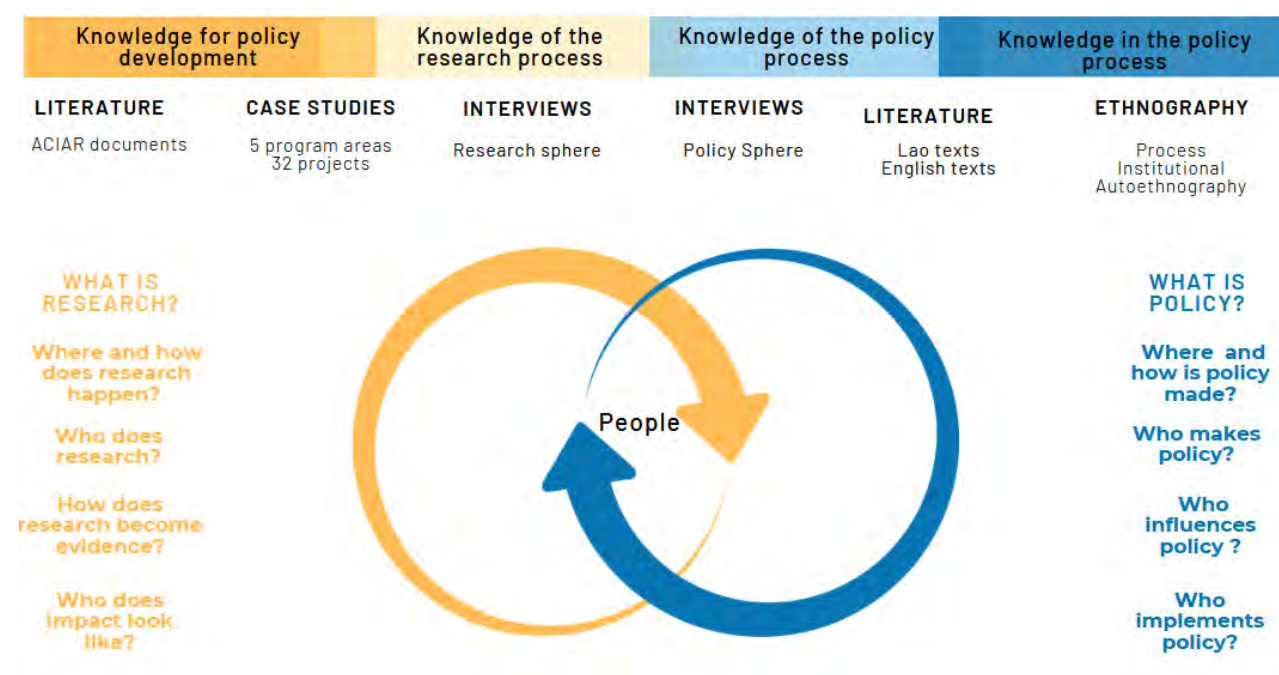
Figure 1: Conceptual Framework.

Howlett and Cashore's (2009) taxonomy of policy components helped us explore policy elements and policy dynamics, and we looked at concepts of policy process, reform and change to guide our research and analysis (see e.g. Cerna 2013, Bennett and Howlett 1992, Howlett and Cashore 2009 and Durant and Diehl 1989). We found the various theories about policy change as summarized by Stachowiak (2013) and Cerna (2013) as conceptually useful: "Large Leaps Theory", "Coalition Theory", "Policy Learning", "Policy Diffusion" or "Transfer", "Messaging and Frameworks", "Power Politics" and "Grassroots Theory".

In understanding the transformation of research into policy-relevant evidence, the 'Data-Information-Knowledge-Wisdom hierarchy' of Ackoff (1988) was useful place to start and this brought us back to conceptualisations of linking research expertise, the interests and demands of political and practical actors and the workings of Caplan whose views are echoed in Parkinson's more recent description of eight research–policy problems which resonated well with our observations.

Finally, to help us explore the role policy practitioners, policy implementers and policy subjects play we looked to concepts emerging from work with 'street-level bureaucrats' (Lipsky 1980) who make

policy real through their everyday routines, decisions and discretion. This street-level bureaucrat theory supports critical approaches to public policy, by providing a counterpoint to official, hierarchical and rational presentation of policy programs by governments, and challenging the common top-down approaches of policy analysis. The approach reveals the complex mechanisms of actual policy making and implementation.

2.2   Case study methods

As foci for understanding research to policy processes in the context of ACIAR's investments in Laos, this project utilised past and present projects as case studies. Our use of case studies was for grounding our examination of research to policy processes in real and in some cases 'live' examples of projects as a way to reveal the ways in which the transfer of research to policy has occurred or has failed to occur. The cases provide an anchor for the other research activities and helped identify stakeholders for interviews and for concentrating interview questions, refining literature and other media to be reviewed. We purposively selected a sample of projects to give us the best chance of exposing those factors that impede or aid 'research to policy'. The merits and limitations of using case studies as a research method are explored in our methods paper.

Case studies were selected from a list 137 of projects in Laos, provided by ACIAR. Initially, 8 project were excluded because they were still in the pipeline and had not commenced. Of the remaining 129 projects, ACIAR Program Managers and ACIAR Laos office staff were asked via email and subsequently in discussions to nominate projects that they thought fitted into one or more pairs of conditions related to whether policy impact was planned for or thought to have been achieved (Table 1). The resultant selection covered:

- Fish Passageways (FISH) – 8 projects
- Forestry (FST) – 8 projects
- Livestock and Animal Health (L&AH) – 8 projects
- Crop Systems (CS)- 3 projects
- Land and Water (L&W)- 2 projects

In the end Crops Systems and Economic and Social Science projects were considered together, with a emphasis on those focussed on rice production.

Table 1: Case study selection process

Step	Criteria	N0. projects
1	All projects in Laos	137
2	Projects active or concluded. Project not commenced or approved were excluded.	129
3	Projects identified by RPMs (sector) and ACIAR country office.	29
4	Policy impact selection criteria • Designed for policy impact (yes/no) • Had policy impact (yes/no)	5 project groupings

2.2.1   Document Review

Following the case study selection, documents related to the projects were sourced from ACIAR directly, through a search of the ACIAR website, following project interviews and through a general search of literature. The ACIAR 'administrative' documents from each selected project or group of projects that were provided included variably, and according to the typical ACIAR report sequencing:

- Project Concept Notes (PCNs)
- Full Project Proposals (FPPs)
- Annual Reports (ARs)
- Mid-term review reports (MTRs)
- Final Reports (FPs)
- End of Project Review reports (EoPR)

These are specified for each case study below.

Documents within program areas were arranged chronologically to establish timelines for groups of projects within a program area and to expose and map out relationships between them. The timeline for each program area is provided within the analysis below.

Keyword searches were then used to hone-in on those sections of documents requiring more detailed review. Noting our intent not to predefine 'policy' (see Report on Concepts and Methods) we nevertheless had to select words likely to expose relevant text. Documents were therefore searched using the following terms: "policy", "strategy", "plan", "law", "legislation", "regulation", "governance", "institution", "agency", "agencies", "Government", "state", "directive", "direction", "instruction", "impact", "influence", "process", "practice", "evidence", "knowledge", "information". For each project, text relevant to the research questions was highlighted, extracted (with context) and examined.

A synopsis of the case studies was compiled to provide context to interviews with research-project team members, and in the cases of Fisheries, Forestry and Livestock projects, the ACIAR RPMs. This enabled the interviews to explore concepts generally, but also focus on key terms used and areas of interest such as design features for 'research to policy' or claims of 'research to policy impact'.

Other documents such as policies, strategies, legislation, project documents, journal publications and media relevant to the projects were reviewed to further explore and verify claims. To identify these sources, we relied on information provided during interviews, cross referencing between documents and other searchers.

A review of ACIAR corporate documents and associated literature was also undertaken to contextualize case studies and better understand ACIAR's own consideration of research for policy impact and practice, and key concepts. This intersects with the two other primary research activities in the project: a literature review of English and Lao texts describing formal and informal policy processes in Laos and an ethnographic study of policy process utilising researchers embedded in policy-making contexts. These studies are described separately.

2.3   Interviews

Interviews were undertaken with research-project teams and with ACIAR and Department of Foreign Affairs and Trade (DFAT) staff.

Where several projects were included in the case studies, team members of the most recent project or projects were interviewed. Participants were identified through the project documents and in consultation with the RPMs and ACIAR Laos office. Follow-up interviews occurred with individual researchers, connected policy makers, policy influencers and some RPMs.

Participants were invited to participate via an introductory email. All interviews were conducted remotely using Zoom. The necessary ANU Ethics procedures were followed for each interview: an information sheet, consent form and guiding questions were provided to all participants in advance, and oral consent and preferences for individual representation (anonymity or other) was obtained at the start of each interview. Precautions, such as interview coding, were taken to preserve the anonymity of informants where requested. A request was made to record the interview. Recording enabled a free-flowing discussion preferred in the semi-structured interview approach used. The guiding questions provided to project teams are in Appendix 1. Guiding questions were drafted in English and reviewed by the team to ensure they were easy to understand and able to be accurately translated into Laos if needed.

All case study interviews were undertaken by Laos and Australian researchers in various combinations depending on the subject and circumstances, which were necessarily flexible due to COVID-19 restrictions. Where preferred or necessary, questions were asked in Lao and participants were able to answer in Lao, this enabled discussion in the vernacular. Interviews were recorded using the Zoom recording function and subsequently transcribed using Otter.ai[1] and translated from Lao to English by project team members where necessary. Interview transcripts and recordings were reviewed, with key terms identified through 'search' functions, and discussed by the project team. Contextual observations were discerned through relistening or rewatching the interviews. Any direct quotes or individualised information were provided to respective informants prior to inclusion in public reports and publications, including this report. Research notes, recordings and respondent names were kept confidential and only available to the researchers involved in the study, each of whom had signed confidentiality agreements.

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[1] https://otter.ai/home.

3   RESULTS

This section describes the results of the case study research. We firstly set out the funding of the review of ACIARs focus on research for policy impacts based on corporate documents and observations from the interviews with ACIAR and DFAT staff. The subsequent section steps through each program area case study presenting the combined analysis of reviewed project documents, outputs and interviews. Lists of project documents, outputs, interviews and related literature are provided in Appendix 2, together with timeline of projects and other relevant collated information.

In all cases **bold text** is used to highlight key statements or claims related to research to policy impact and practice. Quotes from interviews undertaken during this study are emphasised by *"italics"*.

3.1   ACIAR's focus on research for policy impact and practice

This project was premised on a position that ACIAR expects its research investments to have impact on policies and policy decision making in partner countries and to develop durable scientific and policy capabilities in those countries (Project Proposal page 5). This section explores this further through an analysis of Australia's foreign policy for overseas development assistance (ODA), ACIAR corporate documents and interviews with Department of Foreign Affairs and Trade (DFAT) and ACIAR staff.

3.2   Foreign Policy Settings

ACIAR is part of Australia's aid program, under DFAT, fostering international agricultural research and development partnerships that will result in reduced poverty, more sustainable agricultural systems and greater food security. ACIAR's program is developed in the context of the broader Australian aid program and implemented in close collaboration with relevant Australian government agencies, and with research partners in Australia and overseas. Diplomatic relations have existed between Laos and Australia since 1952. Past Australian foreign policy settings influenced ACIAR's focus as well as the development of the case study projects explored in the next section, while current foreign policies and related plans and strategies are relevant for the context of the pathways through which the research outputs and evidence may penetrate policy and practice in Laos in the present and future. The following explores Australia's involvement in Laos starting in the present and working backwards.

3.2.1   The Present

Australia's Aid Investment Plan for Laos 2015-2020, described below, became a COVID-19 Response Plan in 2020[2] under "Partnerships for Recovery" which describes Australia's overseas development policy in response to COVID-19[3]. "Partnerships for Recovery" (DFAT 2020a) noted that how Australia's neighbourhood emerges from the crisis "will require us to monitor supply chains and the availability of food and other essential imports and cooperate to prevent critical shortages. It **will require policy makers to share lessons** on how best to mitigate the social and economic impacts. It will require businesses to invest in emerging opportunities as fuel for our shared economic recovery." (p1)

> "The pandemic and its impacts will unfold over an extended period, potentially through multiple waves of infections. We will need to be flexible in our approach and work in partnership with countries, noting these phases may not be linear. We will continue to draw on local and international **analysis, expertise, and research** to **inform** our evolving approach." (p7)

The use of '**evidence-based interventions**' is one of the five principles of the plan. It states:

> "**We will base our interventions on evidence**. The situation is changing rapidly and is, by definition, unprecedented. We will develop and draw on rolling analysis at local, regional and international levels to adapt our approaches as the situation evolves." (p 20)

New models of delivery are described, with "a strong focus on the localisation of assistance through partner government systems and local organisations in both the response and recovery phases. This

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[2] https://www.dfat.gov.au/sites/default/files/covid-response-plan-laos.pdf

[3] https://www.dfat.gov.au/sites/default/files/partnerships-for-recovery-australias-covid-19-development-response.pdf

aims to ensure efforts are **informed by local knowledge**, support local priorities, and contribute to local capacity and accountability" (p 20).

For Laos, the COVID Response Plan (DFAT 2020b), which adopts a shorter timeframe than previous program plans (see below), aims to 'pivot' existing investments towards health, stability and economic recovery. Within the plan, ACIAR's roles are with respect to better understanding the linkages between human and animal health and in continuing to continue to **invest in research** that responds to the pandemic's impact on food systems. This is expected to contribute to stability by improving food security and smallholder incomes. These investments will be augmented with "**strong policy advocacy**" (p 4).

3.2.2   2015 to 2020

The Australian Aid Investment Plan Laos Program 2015-16 to 2019-20 (DFAT 2015) was underpinned by the Foreign Policy White paper 2017[4] which had an emphasis on **science** and **innovation** aimed at business investment and job creation, within the context of 'soft power'. This refers to "Having the ability to influence the behaviour or thinking of others through the power of attraction and ideas" (DFAT 2017, p 109).

The Australia-Laos program at that time focused on three objectives: 1. basic education; 2. human resource development; and 3. a stronger trade regime and more competitive private sector. Previous investments in rural development were not renewed but there was an expectation that these would achieve some significant outcomes before they concluded, including on financial inclusion, livelihood enhancement and unexploded ordnance clearance (DFAT 2017 p2). The first two objectives focussed on basic education in schools and includes human resource development, particularly through scholarships programs and the New Columbo Plan[5]. The third, which appears of most relevance to ACIAR, focussed on trade, labour standards, regional economic integration and supporting quality and sustainability of Laos' trade and investment growth. Implementation strategies looked to stronger contribution from the Government of Laos and partnerships with the private sector. The Program document mentions "**policy commitments**" (of the Government Laos) in national planning documents that will support Australia's commitment to deliver an effective and efficient aid program, noting particular "key commitments" by the Lao Government (DFAT 2017 p3):

- "the percentage share of the total government budget spent on education increases each year (subject to external considerations) and the education budget allocates an increasing proportion of funding to non-wage recurrent costs; and that
- the Lao Government establishes a Non-Tariff Measures (NTMs) Working Group and that this process leads to a reduction in the NTMs facing business."

3.2.3   2009-2015

Australia's prior Laos Development Cooperation Strategy (ALDCS) 2009 – 2015 (the period in which many of the case studies below were formulated) included **policy reform** as a key outcome of its strategy to assist Laos "achieve inclusive growth through trade and investment by building human resources, helping Laos integrate into regional markets and developing a broader-based, more resilient national economy" (DFAT 2010, p 6). The Strategy is aligned generically with the Laos National Socio-Economic and Development Plan (NSEDP), of which there would be two over the period of the ALDCS.

The strategy is contextualised against development performance, and as relevant to this study, states:

"Governance, civil society and fragility: Laos is a one-party state with only a nascent civil society and **weak legal and institutional frameworks**. The World Bank's Country Policy and Institutional Assessment Index ranks Laos 40 out of 77 countries and defines it as 'marginally fragile'. While the World Bank ranks Laos relatively well in economic management, it ranks the country as a poorer performer in financial sector management, social protection, revenue mobilisation, and transparency, accountability and corruption. The Government of Laos faces major challenges in delivering basic services to its poor and highly-dispersed population. A key feature of governance in Laos is the relationship between the national and provincial governments. **Policy is centrally determined but provincial governors have significant autonomy which at times hampers**

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[4] https://www.dfat.gov.au/sites/default/files/2017-foreign-policy-white-paper.pdf

[5] https://www.dfat.gov.au/people-to-people/new-colombo-plan

national policy implementation. ACIAR supports the Government of Laos and its goals on agricultural development, economic growth and rural poverty reduction." (p12)

Three key development challenges influenced the direction of Australia's aid strategy priorities at this time. These were identified as being consistent with Government of Laos development policies. It was noted that development policy in Laos is guided by two key policy documents—the National Growth and Poverty Eradication Strategy (NGPES), adopted in November 2004, and the National Social Economic Development Plan (NSEDP), approved in 2006 and covering the period 2006 to 2010:

- Continuing broad-based growth and reducing poverty across the country... Government of Laos' **development policy** recognises the need to build growth across the economy, focusing on small- and medium-enterprises.
- Strengthened service delivery: including for education
- Better **governance**: ......Laos needs to strengthen both the **institutions** and **policies** that govern land and resource management to ensure future development appropriately balances economic, social and environmental outcomes. Likewise, the trade and investment sector requires **better policies and practices** to minimise opportunities for discretionary and sub-optimal decision making. Improved delineation of responsibilities between national and provincial governments is essential. **Greater involvement of citizens in public policy formulation** needs to be an integral part of the governance agenda.

The ALDCS saw supporting the Government of Laos' reform efforts as an important opportunity for Australia to contribute to poverty reduction, and engaging in **policy discussion** would be complemented by efforts to deliver direct, visible results for poor people by supporting improved service delivery and rural development. Noting that facilitating greater economic integration was a central plank of the Government of Laos' economic development platform, AusAID intended to play a greater role (**both in policy contribution and resourcing**) in future trade and investment facilitation efforts. Pillar 2 of the ALDCS was for "Inclusive growth through trade and investment". Under this Australia aimed work with Laos to increase trade and investment in sectors which support poverty reduction by addressing **policy and institutional impediments** in areas with high potential to contribute to sustained and inclusive economic growth. Noting that trade reform and private sector growth require a strong government commitment to transparency and accountability a **harmonised** and **consistent** voice from the **donor community** in **policy discussions** with the Government of Laos was seen as important and that Australia was well placed to play a central role in this.

With this as the strategic setting for Australia's development assistance to Laos, ACIAR's research priorities are formulated through Country Partnership Discussions.

3.3   ACIAR Corporate Directions

The current 'Vision Statement' in ACIAR's 10-year strategy 2017-2027 is that

"ACIAR looks to a world where poverty has been reduced and the livelihoods of many improved through more productive and sustainable agriculture emerging from collaborative international research."

Underpinning this vision are aspirations that, *inter alia*:

"ACIAR is a **trusted science** partner in the Indo–Pacific region."

"ACIAR's enduring research collaborations within the region and globally are among the most effective, innovative and promising **science partnerships, underpinning far-sighted policy**, community and industry responses to complex challenges"

Strategic Objectives include:

"Building **scientific and policy capability** within our partner countries"

Strategies for growth:

"Building **scientific and policy capacity** in Australia and the region"

"The challenges of growing more and healthier food and fibre more efficiently and wasting less postharvest in more inclusive and resilient market chains will require a substantial **boost in technical capacity—scientific, managerial, policy and governance**—across the Indo-Pacific region."

Case Studies

> **"Building capacity to inform scientific understanding and the design and implementation of policy** is core to ACIAR's mandate. To date, we have invested mostly in post-graduate and in-service training for individual scientists from partner countries, many of whom are now in influential leadership positions."

Outreach: extending research findings

> "An important priority in this ten-year strategy is to increase understanding within Australia of the impact of Australia's aid investments through ACIAR, and to ensure that **more audiences here and in our partner countries can access, understand and use our research findings**."

> "Informing diverse stakeholders requires targeted outreach, from engaging directly with smallholders in different partner country contexts, to working with international research and donor organisations, **and high level policy and decision-makers**."

The outreach program focuses on three key audiences:

1. Highly engaged – researchers, project partners, contracted research agencies, and smallholders and other research beneficiaries
2. Influencers and decision-makers – parliamentarians, policy makers, industry and research leaders
3. The general public.

The ACIAR Annual Operation Plan 2020-2021 describes three key areas around which work is planned:

1. Global research collaborations: developing and fostering partnerships and relationships with other **international research and development agencies**, **development donors** and the private sector to pursue **shared goals** and ensure that ACIAR-funded research results are **implemented at scale**.
2. Bilateral and regional research projects: **generating knowledge** from ACIAR projects and programs to empower smallholder farmers, extension agents, **scientists and policymakers** to take on the intersecting challenges of growing more and healthier food and reducing poverty while using less land, water and energy.
3. **Scientific and policy capacity building**: identifying and establishing opportunities for **individuals** and **institutions** in partner countries to boost technical, **policy** and management skills in agriculture, fisheries, forestry and management of land and water resources."

The importance and newness of building capacity was noted in our interviews by one respondent who told us:

> *"The Alumni are very important in **navigating policy processes**. They have this body of **knowledge and experiences** that they would like to utilize and one of the needs that was identified is for ACIAR to support them in **understanding policy, the policy space**, and what kind of capacities they need to develop so that they can make **that bridge between the research and translate it to policies and decisions**."*

'Economics and Policy' are cross cutting themes for ACIAR program areas (p39):

> "Our economics and **policy activities** focus on research and initiatives that support sustainable and inclusive economic development. This addresses ways to manage profitable and sustainable food and resource systems from smallholders to **policymakers**.

> "Achieving sustainable development requires equipping **managers at all** levels with **accessible information**, digital technologies, decision making tools and financial products to manage their systems effectively."

> "The Associate Research Program Manager for Economics and Policy works to understand **the trade-offs involved in management and policy decisions**, and the opportunities to find balanced pathways for development. Key examples include:

> o markets that fail to provide participants with conditions for equitable access
> o competing demands on resources among alternative uses, both over time and under uncertainty
> o production activities with the potential to create negative environmental or social externalities."

Case Studies

> "Each requires carefully designed management and policy solutions. Our work in this area is concerned with the processes that support the translation of scientific, social and economic knowledge into policy for sustainable and inclusive economic development."

However, individual ACIAR program areas also have specific policy-related framings. For example:

- for livestock research "A whole-system approach that focuses on livestock production and biosecurity improvements within the relevant sociocultural, gender, **policy** and market aspects of the value chains will continue to be a key focus of the program" (p 35)
- for water research: "The program works to improve agricultural water management through **innovative technical and policy approaches**" (p 36).

In the ACIAR Annual Operational Plan 2020-21 two specific relevant CGIAR initiatives supported by ACIAR are the newly created CGIAR Generating Evidence and New Directions for Equitable Results (GENDER) Platform and the well-established Agricultural Science and Technology Indicators (ASTI) program.:

"The ASTI program, active in South-East Asia and the Pacific, works with national and regional partners to survey and analyse data on the funding, human resource capacity and outputs of agricultural research in the Indo-Pacific region. Data collection is ongoing. ACIAR has supported the program since 2017. During 2020–21, ACIAR will continue to support national and regional analysis of the **data to inform future agricultural research, policy and decision-making in the region**. The program also provides a basis to guide research investment decisions and build a foundation for the long-term monitoring of agricultural research investment and capacity."

A position paper on ACIAR's engagement with the private sector (ACIAR 2015a,) recognises the central role of the private sector:

> "Agriculture is, to all intents and purposes, a private-sector activity, providing economic opportunities for more people than any other sector." (ACIAR 2015a, p3).

The paper describes short- and medium-term actions to enhance ACIAR's engagement with the private sector and states that impacts attributable to the work will include capacity building, **policy development**, sustainable practices and gender equality. The role of networks is identified:

> "Beyond relationships with traditional content experts and trainers, ACIAR has close **relationships with policy makers**, officials, and diplomats nationally and internationally. Such **networks have large potential to engender private/public partnerships and commercial opportunities**. Scientific research partnerships are often a sound basis for subsequent business undertakings" (p 7).

The Private sector is viewed as being able to bring a 'whole of agribusiness value chain' approach, contributing market, finance, consumer and **policy research** and understanding to adapt scientific outputs to marketable results.

3.3.1 A new 'policy focus'

In May 2004, at a time when several of the case study projects considered in this SRA were under development, ACIAR's Board of Management approved a strategy where the Centre would make greater use of pilot or scoping studies that assess policy and institutional issues before making major technical research investments. The Board felt that it might be important to have research on important policy issues and their economic implications undertaken alongside or integrated with the technical research (PLIA 2006).

Understanding the policy environment was considered important to ensure that technical research take the impact of policy into account or endeavour to change policies that act as constraints. The logic of this decision was reinforced in a review of ACIAR's research on agricultural policy (Pearce 2005), which argued that policy settings have the potential to be a major influence on the effectiveness and impacts of particular technical research projects. The review pointed out that policy settings could negatively affect the incentives that shape the willingness of producers to undertake the investments associated with adopting the results of technical research. Policy distortions can also lead to situations where the introduction of new techniques that have counter-intuitive and sometimes counter-productive effects. Undertaking policy and related economic assessments at the same time as the technical research can therefore be important to ensure maximum uptake and adoption of the technical results.

Case Studies

3.3.2 ACIAR's operations in Laos

There are specific policy orientations to ACIAR's work in Laos. The ACIAR Annual Operation Plan 2020-2021 for Laos (ACIAR 2020a) states:

> "Australia's official development assistance (ODA) to Laos aims to help the Government of Lao PDR lift its people out of poverty, and develop as a prosperous and stable neighbour that can contribute constructively to the region." (p99)

> "In 2019, the Ministry of Agriculture and Forestry outlined plans to ensure the country is on track to meet the goals of its **agriculture development strategy**. The **five-year development plan** aims to support growth in the agriculture and forestry sector of greater than 3%, which means it will contribute 19% to the national economy. **Targets** include a national yield of at least five million tonnes of paddy rice, production of meat and eggs to rise to greater than 400,000 tonnes, fish and aquatic animal production to rise to 300,000 tonnes a year, and export of meat products to rise to 15,000 tonnes as production and processing operations are modernise" (p99).

> "**A major policy development in Laos** came in the form of the newly amended **Forestry Law**. Laos has the highest percentage of forest to land area in South-East Asia (68%). The Lao Government is committed to protecting its forest cover while making the forestry sector able to support livelihoods of its people" (p 100).

> "The **National Green Growth Strategy** 2030 is **the basis for actions of the Ministry of Agriculture and Forestry** to increase forest cover by up to 70%. It also **frames policy priorities** to focus on environmental friendliness, sustainability and socially inclusive growth. The plan stresses the need to use the natural resources of Laos more efficiently, while taking a development path that is more resilient to risks such as climate change and also protects people's health. To deliver on this policy commitment, the ministry is drafting the Strategic Framework for Green and Sustainable Agriculture in Lao PDR" (p100).

> "Also guiding the **strategic priorities** of the Ministry of Agriculture and Forestry is the Lao Government's National Nutrition Strategy (2015–2025), which aims at reducing chronic malnutrition (stunting) in children under five from the current rate of 33% to 25% by 2025."

'Policy' is highlighted in several programs areas in Laos, Fisheries, Forestry, Biosecurity, and social sciences (this project). For example:

- For Fisheries: "…a targeted **capacity-building** program to address **institutional needs** for the **integration of fish passages into** irrigation infrastructure and guidelines for the development of fish passage **policy and legislation**…"
- For Forestry: "Analyses to **identify and remove policy**, **governance** and administrative **constraints** to value-chain efficiencies…", "…**engage policymakers** and stakeholders to contribute to the **development of new laws**, decrees and regulations for forest plantations, consider new **policy options** for forest plantation" and "**Research results** will support **evidence-based** forest biosecurity **policy** for the region.

Partnerships with other organisations and the private sector are identified as mechanisms for the scaling out of research results and as conduits for these into policy making. The Laos-Australia Development Learning Facility (LADLF) supports the Australian Department for Foreign Affairs and Trade (DFAT) to deliver effective and efficient aid investments in Laos. In particular, LADLF focuses on generating, synthesising and disseminating performance information to support decision making around the Australian Government's Aid Investment Plan (AIP) in Lao PDR. The Facility works at the leading edge of performance management and is representative of DFAT's emerging approach to ensuring high-quality oversight of aid programming in key recipient countries. It works closely and in a collaborative manner with the Australian Embassy in Vientiane and its implementing partners, to fulfil DFAT's mandate and objectives in Laos PDR.

ACIAR's research priorities for Laos are shaped both by Australian foreign policy and aid investment programs and by the Government of Laos through consultation with key partner ministries – the Ministry of Education and Science and the Ministry of Agriculture and Forestry, DFAT within which ACIAR sits, and the Australian Mission in Laos.

3.3.3 Interviews with ACIAR and DFAT staff

The broad and locally specific settings for research generally and policy-oriented research in Laos in particular were explored through interviews and conversations with ACIAR and DFAT staff. What we

heard during these conversations is that policy is thought to be made 'top down', but that policy making is not unidirectional or linear and the role of people outside the 'direct' policy making process is important. We were told that:

> *"In the Lao context, often you need the policy because that's how the bureaucracy and the party actually functions".*

Having a policy was seen as important for guiding government officers:

> *"you're at the district or the province and you're aiming to go up the ranks in the party. The last thing you'd want to do is to commit a big error or do something that's out of or not aligned to a policy statement"*

The top-down nature of policy was exemplified by reference to policies made at the Polit Bureau level, to sectoral policies and 5-year plans. But there was also acknowledgement that policy making could be very reactive and that this could be a challenge for the ACIAR model because the project development cycle can be much longer than policy cycles. However, the long relationships established by ACIAR in Laos meant that the GoL might come to Australia - ACIAR or DFAT – for a solution. An example cited was in response to a Prime Minister's Order on a logging ban and that the Department of Forestry was able to go to an ACIAR project to seek advice. It was noted that:

> *"ACIAR and projects needs to be nimble and flexible to be able to respond quickly to the immediate policy needs."*

On reflecting on the process of policy and research it was generally acknowledged that there is appetite for evidence to inform policy making, but that there is very little research in Laos, and hardly any of it feeds into policy processes. It was observed that "*something on the ground happens, this alarms MAF and others, who might then come to ACIAR*". Hot topics, arising when lots of people are talking about an issue, were considered important and something Ministers would pay attention to. Making information available to them so that they can take it to the Party for discussion is seen as important, but it was also acknowledged that "*they have to check the evidence is true and that can take a long time*". A perceived advantage of ACIAR projects is that they are "*local, and on the ground*". A cited example was the outbreak of banana fausarium wilt; NAFRI approached ACIAR directly about this and there is now an external partnership with the French Agricultural Research Centre for International Development (CIRAD.)

Respondents noted that getting research into policy was raised at a 2016 meeting between ACIAR and the vice Ministers of MAF and Ministry or Education and Science (MOES). However, ACIAR does not see itself in that process; there is more an expectation of the Lao country office as being about partnership brokering and bridging research to policy. For example:

> *"We gave a sideways nudge to NAFRI and NUoL and asked them what they were doing to communicate results into the broader decision–making processes".*

Having project-generated information considered in policy discussions is considered a big win by ACIAR.

> *"Realistically, the nature of work leads more to impact on small 'p', the small policies."*

> *"I don't know exactly what it is that's driving the impact on policies but I think part of it is the nature of the closeness of the research collaboration… there is now a generation of previous researchers who've gone up to policy decision positions, like Deputy DGs or DGs."*

However, getting information about policy priorities was identified as a challenged easy for DFAT and ACIAR. There is a bilateral agreement on a set of priority issues between the counterparts - GoL (MAF) and ACIAR: "*This is a long term set of priorities that is used by ACIAR to guide the development of projects. The aim is to make a "Country Program Strategy*" and involves a Partnership Dialog with the Vice Minister. There was a dialogue in 2016 and at that meeting the GoL wanted to see more consolidation around projects and more cohesive messages. They wanted a strategy, not 30 different random individual projects. The current emphasis on research to policy was a request from to two Vice Ministers to ACIAR. At the meeting, the Ministers asked for policy brief; and four were developed.

ACIAR had no visibility as to how the briefs were actually used, but after many months there were signs that others were more engaged in the activities than previously, an example was of the Department of Irrigation becoming involved in the fish passageways research.

"I particularly recall one statement that the former vice minister, he said "you know, it's so difficult to change policies, it will take years and years. But what we can actually do is make sure that this research impacts on the way we do things".

With the Department of Irrigation "they receive a big portion of the Ministry's budget, because it's infrastructure, right? So well, if they can change the way they design their irrigations, and the dams and make sure that it's fish friendly, then then that for us is the better way, rather than aiming immediately for a change in the irrigation policy or the law on irrigation and fisheries and all those things." So he did not say, don't do it, don't aim for the policy, but he was just saying, you know, aim to make the necessary changes in the way people work and the way people do their job." (DS)

It was stated by interviewees that ACIAR programs and projects should align with GoL strategies, like the new NSEDP and new Agriculture Development plans; there is a new clarity and new strategic priorities, and ideas and plans need to link with these. The Ambassador should lead these talks, ideally, along with colleagues from Canberra. The HOM has relationships with senior people that could enable research evidence to get to policy makers but often they do not have the information at hand. There is a need for short briefing documents so that the information is 'in their head when they need it' - "*what are the important five things? What are the pathways? What are the points you want me to advocate on?*"

Leveraging ACIAR's investments and scaling up results through relationships with other donors is very important, especially in the context of Australia's foreign policy.

"If you read the foreign policy white paper, which is the whole of government policy, which includes ACIAR, it absolutely talks about improving Australia's influence".

"I do think ACIAR in its field of sphere of influence, is in a pretty safe place in terms of trying to trying to improve policy"

ACIAR does not work alone but as part of the Australian Government, as part of an "embassy team" with common goals under the leadership of the Ambassador. This includes outreach, "public diplomacy" and policy dialogue.

3.4   Case Study analysis
The following section presents, for each case study project grouping, the combined analysis of reviewed project documents, outputs and interviews. Lists of project documents and outputs reviewed are provided in Appendix 2, together with timelines of projects and other relevant collated information.

3.4.1   Fisheries projects
A semi-structured interview was undertaken with Fisheries project team members on 24th June 2021. Participants were from the National University of Laos, the Living Aquatic Resources Research Center (LARReC) within NAFRI (MAF), the Lao Department of Irrigation (DoI) also in MAF and Charles Sturt University. A subsequent interview was undertaken on 4th November 2021 with the leader of the current Fisheries project. An interview was conducted with the RPM for Fisheries on 11th August 2021. The interviewees described the history of project development from an early 'technology proof of concept' to scaling out into bigger projects, the most recent of which is aimed specifically at policy.

The Fisheries suite of projects considered in this study commenced in 2008 with a Small Research Activity (SRA) on "Development of fish passage criteria for floodplain species of central Laos" (FIS/2006/183) which proposed to develop the necessary criteria to construct suitable fish passage facilities throughout the country. That SRA ran largely in parallel and with direct interaction with another project in Thailand (SRA FIS/2007/076); that project is not included in this study. Interviewees explained the context to the development of FIS/2006/183, as a 'proof of concept' for future investments and noted that there were early concerns about ACIAR investment facilitating mainstream dam issues. One team member commented:

"ACIAR were very keen that we defined ourselves very closely to working on the floodplain, on the small tributaries in wetlands and the floodplains. Basically, ACIAR were very happy that we weren't being involved in any mainstream issues at that stage."

In 2009, building on the SRA, as well as on research on the Murray Darling Basin in Australia, a full five-year project called "Development of fish passage technology to increase fisheries production on

floodplains in the lower Mekong and Murray-Darling River basins" (FIS/2009/041) was proposed. The project was largely technical, and had three major objectives:

1. Identify and prioritise water infrastructure that creates migration barriers to lateral fish migration between the Mekong River, its tributaries and floodplain habitat.
2. Research the effectiveness of low-cost fishways for widespread application at floodplain barriers in the lower Mekong basin.
3. Quantify the biological, ecological and socio-economic benefits of floodplain rehabilitation using fish passage technology to increase awareness and uptake of low-cost mitigation measures.

Policy influence and impact were not a stated focus or objective of the project, although one project activity included the establishment of "A panel that can provide technical and **policy input** into water infrastructure projects which impact upon fish passage" and the participation of LARReC was considered important because "the support of a Lao government agency and the only tertiary institution provides an **excellent mix of policy and education**" was "necessary to undertake work of this nature".

Policy impacts were not reported in the final report (published in 2016), however the End of Project Review (EoPR) noted:

> "The project was extremely well targeted to the needs of the beneficiaries. It **influenced district and provincial staff.** It seems the project did not have a significant **influence** in government management agencies and **policy-makers**, but this was not a specific objective of the project. **It should be an objective of the next project**."

After effective proof of concept, a demonstration fishway was built, although at that time it was "unusual for ACIAR to support putting concrete in the ground". The project team noted:

> *"So we had to prove a concept to show internationals, our own funding body, and particularly important, Lao people both from the village district, province and Central."*

> *"The approach to that was to we had to win hearts and minds. And so we took the locals on the journey with us….. And then the first day that we turned it on, and they saw fish swim through it, it was just like this light bulb just flicked on and they said, ah, that's a step for fish, and that's how it works. So and that that took a bit of a process that was that took a couple of years of demonstrations and bus trips and explanations and presentations just to get to that stage."*

> *"Now busloads of people were coming, there were director generals coming, there were ministers coming, the ambassador visited the village three times. They're like, this is a big deal. And so these guys got this real sense of community, spirit and pride. And they're like, 'Wow, this is our fish way. We built the first fish way in Laos' and then like the village chief and his son were being invited to other provinces to talk about the experience. And so they were going out to other districts, and saying, Yeah, we built this fish ladder. And so it kind of generated a little bit of its own energy. And, and it just sort of became a bit of a success story, just by word of mouth."*

In 2011 a further SRA was commissioned for a "Pilot study for development of fish friendly irrigation and mini hydro design criteria for application in the Mekong and Murray-Darling Basins" (FIS/2011/072) which progressed into a full project in 2012 on "Improving the design of irrigation infrastructure to increase fisheries production in floodplain wetlands of the Lower Mekong and Murray-Darling Basins" (FIS/2012/100). Amongst other objectives, that project was designed within an increased focus on capacity building. The project proposal noted:

> "The project will include Lao fisheries researchers and management officers in all areas of the work, including experimental design, fieldwork, report writing and presentation of the results at regional and international forums. Previous ACIAR projects undertaken by this team have shown that such an approach is a successful way of **facilitating Lao researchers** to understand the key principles and outcomes of the project and **empower them to participate directly in policy debate at public forums**."

During the course of FIS/2012/100 several other organisations were advancing their work on fisheries management and fish passage and there is some evidence of the take-up of research results from ACIAR's projects.

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- In 2013 the Mekong River Commission (MRC) developed "An Introduction to the Fisheries of Lao PDR" (MRC 2013) which refers to ACIAR generally and an ACIAR/IDRC project on small-scale wetland indigenous fisheries management (SWIM 1999-2002), as having "broadened the inland fisheries' horizons of Lao PDR and allowed them to face new challenges. The results of collaborative assessment and research projects have highlighted the importance of subsistence fisheries management and the requirement for in-depth understanding of aquatic ecosystems and the socio-economic setting for further management interventions." (MRC 2013 p 42). Although it does not refer to the other ACIAR fisheries investments that had been implemented prior to publication.
- The Food and Agriculture Organisation of the United Nations (FAO) released the "Report of the FAO/SEAFDEC Workshop on Principles of Improved Fish Passage at Cross-river Obstacles, with Relevance to Southeast Asia (FAO 2013). This workshop was co-hosted by ACIAR together with other development organisations. The Lao report to the workshop was made by a representative from LARREC, who was also a team member of the ACIAR Fish projects, and several of the ACIAR project investments were mentioned in that report. The main problems and constraints related to the planning and construction of fish passages in The Lao People's Democratic Republic were 'tentatively summarized' as follows:
  - Lack of knowledge on the basic technical information needed for the design of fish passages;
  - Lack of knowledge on the monitoring methodology to evaluate the effectiveness of fish passages;
  - Lack of awareness and knowledge on this issue among the policy makers, decision-makers, researchers and managers;
  - Institutional aspects such as agency responsibilities for the design, construction and management of fish passages;
  - Lack of specific legislation that is related to the construction of fish passage;
  - Lack of human resources with technical background on fish passage design, construction and management;

Other pertinent comments made by participants were:

- "…awareness of dam constructors **and policy makers** in the Southeast Asian countries were very limited concerning the impacts of dam construction on fishery resources, and recommended that the lessons learnt from other parts of the world"
- "As the issue of fish pass construction involves not only fisheries, but also several other sectors, information derived from studies on impacts of cross-river obstacles on fish and aquatic ecosystems, as well as on people's livelihoods and food security, should be publicized to enhance the awareness of policy makers and politicians. In addition, the issue of fish passage should not only be judged from a technical perspective" (p17)
- "Due to the unavailable data and information that demonstrates its importance, the sector has received low recognition from planner and policy makers" (p27)
- "The policy of the Government of the Lao People's Democratic Republic (GOL) promotes the development of irrigated agriculture and has planned to increase its coverage to 60–70 percent of the cultivated land in the lowlands and uplands. The Seventh National Socio-Economic Development Plan (2011–2015) of the Lao People's Democratic Republic has set the targets by 2015 to increase the irrigated area in the dry season to 500 000 hectares, including 300 000 hectares for dry season irrigated rice, and to expand wet season irrigated areas to 950 000 hectares" (p51-52)
- "The Guidelines of the Mekong River Commission" (MRC 2014), which became a '**policy target**' of FIS/2017/017, refer to ACIAR research (p 56). In particular, "Optimising fish-friendly criteria for incorporation into the design of mini-hydro schemes in the Lower Mekong Basin" (Thorncraft et. al. 2013, although not actually an ACIAR project this involved many of the same researchers) and "Improving Fish Passage in the Mekong and Murray Darling Basins" (ACIAR 2009, which is FIS/2009/041) noting that these "attempted compile some of the results of monitoring of experimental fishways into a set of criteria for fish passage. However, while these criteria are very valuable, they only apply to the fish communities in the area of study. They may be used as the basis for design criteria for other areas, but local information should be incorporated into them to ensure that there is the highest possibility of successful fish passage outcomes".
- The MRC (2015) "Review of Existing Research on Fish Passage through Large Dams and its Applicability to Mekong Mainstream Dams" MRC Technical Paper No. 48 June 2015, while making no mention of ACIAR directly draws on various fisheries project outputs attributed

> to project researchers. These are technical mitigations measures, and the review makes no mention of policy.

The Final Report for the project claimed that

> "The biggest achievement of this project is that we have **given the people of Lao PDR the tools to make more sustainable policy decisions** around irrigation infrastructure investments" and "The social impact that can come from **empowering researchers and decision makers to drive positive policy change is hard to tangibly quantify but is no less important**. Through the project we have continued to foster an early-adopter mentality in Lao PDR. Researchers, conservation groups and water authorities have been emboldened to adopt technological advances and world best practice.

In the context of the activities in Australia, the research was stated to be **influencing policy and practice** with fish ladder construction "now more than ever intrinsically linked with irrigation modernisation through the NSW Fisheries Management Act. Most recently, a Ministerial Task Force in NSW was established to develop a 20-year NSW Fish Passage Strategy to remediate 160 priority barriers to restore fish access to over 10,000 km of rivers."

The End of Project Review (EPR) for FIS/2012/100 (undertaken in 2018) noted the **Lower Mekong Basin Fish Passage conference** that was held in Vientiane in 2016 and included the complete history of ACIAR fish passage projects in Lao PDR. Reviewers commented "this first-ever forum to showcase these results to developers, donor bodies, management agencies **and policy makers (which participated**)" - emphasising, as an achievement, **that policy makers actually participated**. That conference, with 160 delegates from 14 countries brought together global experts in the fields of riverine development fish passage and aquatic ecosystem management to demonstrate how applied research has been used over the last decade to enhance policy and decision-making across the Lower Mekong Basin (LMB) and to discuss future directions. The conference was opened by the Vice Minister H.E. Dr Phouangparisak Phravongviengkham and Mr John Williams[6], then Australian Ambassador to the Lao PDR.

The conference was held for four main reasons, *inter alia*:

- Third, researchers active in this space have had limited opportunities to interact and share results and perspectives.
- Fourth, no formal forum to showcase these results to developers, donor bodies, management agencies or policy makers has ever been held.

Taking a broad, regional, approach to research and policy development pertaining to fish passage design, construction, implementation and assessment was agreed as a good way forward (Baumgartner et al 2017).

Around that same time, and following a request from MAF in 2016, at a consultation meeting with ACIAR staff, a policy brief on fish passages was written. It summarized findings, outcomes and recommendations from several research projects on fish passage and identified **clear policy need** to recognize the effectiveness of fishways as a mechanism to generate win-win outcomes where healthy fisheries can co-exist with irrigation expansion activities This policy brief set out key actions that could substantially benefit both fishers, farmers and communities if implemented in a strategic manner noting:

- A key factor in the construction of suitable fishways in other areas of the world is strong legislation.
- **Legislation** has created a culture of compliance where any new works ensure fish passage is adequately catered for. No such policy exists in Lao PDR.
- Lao Fisheries and Energy **Law** provides no formal mechanism to require fish passage at either large or small projects. The development of such legislation would ensure that donor bodies and developers implementing both major and minor works programs meet environmental requirements which in turn will protect the fisheries resource base.
- **Consideration of fish passage upfront in policy**, guideline and budget discussions related to new infrastructures and upgrades of existing ones.

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[6] https://laos.embassy.gov.au/vtan/Lower-Mekong-Fish-Passage-Conference.html

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- Supporting **applied policy research** to sustain substantial development outcomes on food security.

The 2016 conference was also considered to be a 'light-bulb' moment for the research team in terms of identification of project stakeholders and partners. They commented to us:

> *"So we built this thing in 2012. Then we had to assess it, and there were so many fish swimming through it after it first worked. And that's why we're getting all of these people come to see it."*

> *"And we, we said, how about we partner up on a conference, a conference, a regional conference in Vientiane, and we'll showcase this"*

> *"If everyone's so excited about this, why isn't everyone doing it? And **we did a little bit of a stakeholder mapping exercise.** And we realized that for the last eight years, whilst we generated all this excitement, **we were talking to the wrong people**, we hadn't actually been talking to the people who were building and operating the weirs. And that was the critical step we needed to make to bridge that gap between our little proof of concept and scale out."*

> *"But the people who are actually implementing those programs are the irrigation agencies, so that the irrigation agencies are getting funded with significant amounts of money, mind you, by the donor banks by ADB by World Bank, JICA, all these international development agencies are pouring 10s of millions of dollars into weirs, into irrigation programs. But they're not thinking about fish ladders, because no irrigation engineers ever train to think about fish. They're just trying to think about concrete and steel."*

> *"We want that to filter through every single business case developed by the ADB from now one. Now, for us, **you could have a policy that dictates that**. But we found that it's really, you have to reach a **champion** within the ADB who supports the concept and makes it happen, it happens through champions, it doesn't happen through the best policy, it doesn't happen through the best guidance document…"*

The project reviewers commented that biological information needed to be **presented in other formats such as policy briefs**, suggesting that they had not viewed the aforementioned policy brief, or that more could be done.

The importance of working across ministries and down to the local level was emphasised during our interviews. Respondents reflected on early lessons in partner selection – choosing researchers (NUoL and LaRREC) but not the partners who were 'the engineers with the budget' (DoI).

> *"Department of irrigation has very important roles in improving agricultural production and food security in Lao PDR. This has led to increase in rural household income reduce poverty and resilient livelihood system through efficient management of water resources, and Department of Irrigations now recognize that fish passage is very important requirement for future developments project as well as an issue to be addressed on existing in–stream irrigation scheme. And Department of Irrigation is recognized the fish way is very important and will include in the next up–date law or we include in decree or regulation very soon."*

The most useful evidence from the project for DoI was that "we see the people in local area that can get more income from the fish after constructing the fish passage".

When asked whether the information came from local officers the reply was that it came from local people not '*the others*'. The project emphasised 'working with' a wide variety of stakeholders from central to local (village) in Government in different organisations, NAFRI, University, and local people. Learning between researchers, and learning between countries, building trust.

> *"So we are working closely together …platform where we are learning together …, the researcher, villager and expert from Australia, we are working together with people. We are learning and transfer the knowledge to each other….what happened in the field."*

In 2017 as part of FIS/2012/100, the project began organising 'masterclasses' to bring stakeholders together to help disseminate practical information on fishway and infrastructure design (Baumgartner 2018), although 'policy' does not appear to have been a focus.

A second international conference was organised in December 2018 and attracted more than 350 delegates, representing over 30 countries, to share knowledge on hydropower and fish management.

The role of other donors such as the World Bank and ADB was considered a real "turning point in the projects" and an ADB policy brief, produced in 2020 was co-authored by ACIAR project team members. (ADB 2020) resulting in direct transfer of ACIAR research findings. The purpose of the ADB paper was "to provide foundational information on the importance and features of fish passages and fishways for staff of the Asian Development Bank (ADB) engaged in irrigation investments as well as their development member country (DMC) counterparts." It notes (p 25):

> "The overarching strategy for fishway research is adaptive management. Adaptive management recognizes that research is required to generate knowledge and that knowledge is used to build institutional and individual capacity, which is then translated into governance, policy, and practice. In strong adaptive management frameworks, research informs the development agenda that adaptively changes as new knowledge is generated. Without robust data, it is impossible to make sound development decisions. These data are also needed to inform improvements in the development of the various support currently available to decision makers".

> "Fishway research is best carried out through adaptive management, which generates **knowledge to build institutional and individual capacity, which is then translated into governance, policy, and practice**. In strong adaptive management frameworks, research informs the development agenda that changes as new knowledge is generated to make sound development decisions (p 36)."

This document is an example of how ACIAR project research results can be transferred to other (potentially more influential by virtue of financial value) organisations and programs via the engagement of researchers whose research expertise and capacity has been increased through participation in ACIAR projects.

While FIS/2012/100 was ongoing, in 2014 design of another full project began. That project "Quantifying biophysical and community impacts of improved fish passage in Lao PDR and Myanmar" (FIS/2014/041) was approved and subsequently commenced in 2016. It is ongoing and currently delayed due to COVID19. That project's proposal recognised **the lack of a policy decision-making framework** "as a major gap" in uptake of research results. The project team included LARREC and NAFRI on the basis that they are **"jointly responsible for advising fishery and irrigation policy development in the fisheries space"** and NUoL because **"graduates are recruited to government agencies that manage natural resources and develop and implement policy"**. Tied to a "Fisheries Action Plan" and legislation regarding consideration of natural resources in infrastructure projects, the project has as a component, activities for building capacity around the consideration of appropriate techniques for doing this.

Another SRA "Assessing fisheries mitigation measures at Xayaburi Dam in Lao PDR" commenced in 2018, in response to a request from Xayaburi Power Company Limited (XPCL) for research into the effectiveness of it significant fish passage investments. That SRA led to a full project that commenced in 2019 called "Assessing upstream fish migration measures at Xayaburi Dam in Lao PDR" (FIS/2017/017) and which is ongoing until 2024. The SRA noted an expected downstream outcome of project activities would be **"directly influencing policy** regarding hydropower mitigation in the Mekong" and proposed the formation of a core-group to guide this.

While not all of the Fish projects are linked to hydropower, the interviews with the project members indicated that the effect of hydropower on fisheries was an issue (but that it was contentious in the early projects), and the relationship with the private sector had been effective in translating initial research results into practice. Small research activities have been undertaken on the Xayabouri dam and the first sentence in the rationale for the current large project (FIS/2018/153, below) is "Many fisheries in SE Asia are currently under threat from the growing development of irrigation and hydropower infrastructure". A National policy on Policy on Sustainable Hydropower Development in Lao PDR (PSHD) was promulgated in 2015[7]. It makes no reference to fish or fisheries and only broad reference to natural resources and the mitigation of impacts on these. In response to the policy, the

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[7] Decree No. 02/GoL on the Approval and Promulgation of the Policy on Sustainable Hydropower Development in Lao PDR, dated 12 January 2015.

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World Bank Group[8] supported the Ministry of Energy and Mines to develop guidelines on its implementation and within those guidelines fisheries are briefly touched on, and MAF as the ministry responsible is noted in a technical advisory role.

The FPP noted **challenges associated with scaling-out the capacity built in earlier projects to policy makers**, managers and donors. It included the formation of a **reference group** consisting of representation of key stakeholders for dam planning, construction and policing and **anticipated specific policy impacts**, namely (FIS/2017/017, FPP, p. 39):

> "The project is innovative as it can blend both the best practice experience of Australia with development agendas. Policy impacts (short-term during project life) in the region **can be measured by the ability to influence Mekong River Commission mainstem dam guidelines, ensuring new dams include functional fish passes, as well as adopt standard monitoring methods.**"

Specific policy impacts were reported in the final report as "the **development of guidelines** (e.g. the boat electrofishing guidelines) and in-country capacities (e.g. via the provision of mentoring and hands-on experience in setting up PIT antenna systems) required to systematically include fisheries considerations in hydropower activities throughout South East Asia". It also indicated future short term **policy impacts in the target countries** will result from both the SRA and broader four-year research project outcomes and that these "**will be quantified in terms of their influence on (1) MRC guidelines, (2) ensuring new dams include functional fish passes, as well as (3) developing standard methods for evaluating the effectiveness of fish passes.**"

In 2020, it was recognised that "a major learning from these [past] projects was that research, policy, governance and institutional capacity all play key roles in wide-scale application, and will act as an implementation block within countries if they are not adequately considered and incorporated" and a further project "Translating fish passage research outcomes into policy and legislation across South East Asia" was initiated (FIS/2018/153). That project is in its early stages of implementation, with delays encountered due to COVID-19. It was noted by ACIAR RPM that a very key player in this space was a reviewer who made a recommendation that the project should move into the governance space.

FIS/2018/153 thus has a specific objective (No. 4) to identify **policy needs of the partner countries** and **donors**, and its three related research questions are:

- What are the key barriers/enablers for fish passage implementation - technical excellence, institutional capacity or **good policy**?
- What are the key institutional and individual needs that would **facilitate uptake of results into the development space**?
- **What is the appropriate governance and/or policy framework** for large-scale fish passage adoption in select countries?

Policy related research activities are under "Pillar 3: **Governance and policy research and development**":

1. Performing an international systematic review of fish passage policy and legislation
2. Identifying success factors and pitfalls of programs across select Asian jurisdictions
3. Developing a set of regional fish passage guidelines
4. Linking and embedding governance and policy activities with donor projects.

The specified intended policy outcome is: "Ensuring that research has **guided** the development of fish passage **policy** and **legislation** in Myanmar, Cambodia, Lao PDR and Indonesia", with anticipated **regulatory impact** being "adoption of **regulatory and legal instruments which are informed by world-class scientific and environmental research**". Institutional and governance issues are a focus of the project. "The project aims to **generate the essential research** needed **to bridge the gap between technical research** (2006-2018) and scale out into **capacity building and policy** (2019 and beyond)."

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[8] See for example,
https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/new+hydro+policy+puts+focus+on+sustainability+in+lao+pdr, which as also supported by Australia Aid

Case Studies

In discussing this project, particularly around the specific policy impacts arising the project researchers indicated that there may be a mismatch between what they view as policy impact and what ACIAR might be expecting. One respondent noted:

"that's ACIAR's title for the project. ACIAR want policy and governance outcomes. We want practice change. And our experience has been that legislation and policy is only as good as its implementation. So you could have the best policy ever, but that policy doesn't need to be followed, it's just said, it's just an instrument that's there. You could, you could have an excellent policy, but a governance framework that doesn't allow it to be implemented properly. So, we, it doesn't really matter to us, as a project team as to how we get to the practice change, we just want to get to the practice change. And that might be through legislation that might be through capacity building, that might be through good governance structures that might be through collaboration that might be through proof of concept, there might be through all of that a combination of all of that."

*"So it's about policy, it's about legislation. It's about capacity building. It's about empowering champions. It's about community involvement. It's about having a solution that's scientifically defensible. **But it's all about people at the end of the day**, is that people are the decision makers, and sometimes people will sidestep good science for a political outcome"*

When probing further into what the project team thinks ACIAR really wants from such an apparently policy-oriented project it was suggested:

"I don't think they [ACIAR] really care. I mean, if we wrote 20 policy documents, versus helping 1200 households, what they would prefer to report on. They want to report on improvements to people's lives. So that's probably a fundamental shift from where we started to where we ended up. We've completely changed our messaging on how we define success in our projects and ACIAR seem to have embraced it a bit. So I, I firmly believe that's what ACIAR means by policy change."

Where ACIAR had a slightly different perspective

And so, this project is not naive enough to think that, you know, the evidence is that we've shown that putting in fish passages lead to improved outcomes for communities around food security, and income, and also sustainability of the Mekong resources, and that there's broader agendas, and, you know, neoliberal agendas that are much more powerful…… And so, you know, this small evidence that this project has generated is not really going to affect the change in the scale that we want. But what we have got is a team that's embedded within the institutions within Laos and, and connected and have respect and trust with the powerful donors in the region. And so I think that, that embeddedness within systems and with powerful decision makers, they're all, of course, also embedded within the fisheries agencies, and more and more the irrigation agencies. So they're kind of like this sort of, you know, network of fingers all through the whole system. And that, I think, is what we hope to do to influence policy is to, to be the guide and the, you know, the trusted support for the all those players, stakeholders to move forward."

In 2021 Baumgartner and others published a paper that summarises some of the key issues around fish passage research and policy, including:

- Specific engineering solutions, **supported by strong guidelines, legislation and policy**, are needed to ensure fish are protected both now and in the future.
- **Global information sharing is therefore critical to drive sound policy and actions** required to promote inland fisheries sustainability whilst still supporting the economic development of the region.
- Location is another important aspect of a successful project because **demonstration sites are invaluable for government policy makers** as well as investment agencies interested in scaling out the results.
- Often there is a **lack of clear legislation or policy governing** fish passage requirements.
- The **science justifying fish passage implementation is sound**. Yet, management agencies often consider that mitigating the environmental impacts of irrigation infrastructure is an unnecessary expense, and consequently many programs proceed without fish-related considerations. Such situations are exacerbated because, **institutionally**, irrigation and fisheries departments are separated.

Case Studies

ACIAR perspectives of policy and the use of evidence in policy making

> *"the decision on what evidence is required is very much framed within the perspective of the of the policymaker, or the researcher that's producing that evidence….. how to formulate evidence based policy sounds like a simplistic and logical thing, but it's quite imbedded in position and power and, and ideology."*

> *"evidence is the ideal but often ineffective, and also the institutions are not strong enough to, to translate and embrace evidence for policymaking that is for the, you know, the common good. And so I think we have an idealistic view that we need to pursue evidence based policy, but I think we also have to understand what the current drivers are for and needs and pressures of, of policymakers and have a much more nuanced understanding of identifying opportunities to influence policy, other than evidence that's around, you know, power and economics"*

On the issue of timing and opportunity

> *"that disruptive or policy opportunity, that that you could take advantage of a time and a place and in a political environment, that that's ripe for change….they're often not presented or time packaged, targeted to the policymakers needs"*

3.4.1.1 Summary of Findings & Observations from Fisheries Projects
The fisheries case study analysis highlighted a number of things that worked well

- Events are useful in brining diverse stakeholders together to identify and solve problems and build capacity and confidence. They can also have an important performative element, such as through the presence of Ministers or Ambassadors, that elevate the profile of the project and credibility of the team.
- Physical demonstration of 'proof of concept', together with conversations with real people who are the target of the change (e.g. farmers/fishers) and the policy makers/influencers is important.
- Transfer of research outwards can occur through project participating in (leading) other processes. ACIAR project researchers often do not just work on ACIAR projects
- Having diverse stakeholders and working with and through local people were emphasised by interviewers as effective ways to reach policy makers.
- Connections with external stakeholders (e.g other donors) and their projects, and the involvement of ACIAR project team members in these was noted as a good pathway for impact. Where other organisations are less focused on data and evidence generation, they may be more oriented towards information and knowledge generation. ACIAR projects can provide the former to organisations that focus on the latter.

Various issues that can impact the effectiveness of transferring research to policy were identified, such as:

- Partners and stakeholders may not be immediately obvious or during project design. Early identification as part of the project can address this, but projects may not be designed to accommodate the introduction of new members once they have commenced.
- Project often seek scalable solutions but may not be aware of the cost/risk to Lao partners of doing this. Projects run by other donors and lenders may be better placed to undertake scaling out, or they may create barriers to this. Furthermore, borrowing (by a Lao organisation) to scale out may depend on Ministries not included in project teams (e.g. MOF), and may have broader governance and policy implications. The case (cost-benefit) of this need to be taken into account in policy recommendations.
- Costly (unaffordable) local interventions may not be taken-up (e.g. by farmers) even if there is evidence to support them.
- Partnerships with other 'bigger' and 'more influential' donors may influence policy or processes, but this may still take a long time. There was evidence of take-up by other organisations, e.g the development of guidelines of the MRC. This was seen as policy impact, highlighting different perceptions of what policy can be.
- It takes a certain type of personality to mediate between research and policy makers. This might not be a 'good scientist', it might require a particular type of project leader.
- It takes time (several projects) to build trust and create the opportunity for team members to embed themselves in and with policy making.

- The project team needs to be able to take advantage of 'disruptive' opportunities. There needs to be surveillance to identify these opportunities. Who does this surveillance and how it is communicated is important in order to create the settings that allow projects to adapt. It is difficult for relatively small and low budget (relative to some other donor funded projects) for ACIAR teams to have "network of fingers all through the whole system"
- There are formal processes of interaction between researchers and policy makers when something needs changing. For example, when a law is being written there will be meetings and researchers invited to participate. There are other formalities involved in this, such as MOUs between institutions – e.g NUoL and MAF or LARReC and MAF.
- There are also formalities within research institutions -researchers send their results upwards within their own organisation. It doesn't just go directly to policy making. They inform upwards and then outwards. This creates opportunities for filtering, (mis)interpretation, error, delay.
- Validation of results needs to happen against what is the most important and current issue.
- It can be useful to have a panel of people to take the technical information to policy in different places.
- Projects can give people the tools and capacity to make policy decisions, but it can be difficult demonstrate policy change.
- Data and information need to be presented in a range of formats to suit different audiences.
- The specific orientation in most recent Fish project documents appears to address scaling out capacity built in earlier projects to policy makers, includes specific policy targets and includes designated policy research activities and policy impact through changes principally in regulations by bridging the gap between technical research and policy. The focus appears to be on 'formal' policy. Project teams and ACIAR RPMs and ACIAR staff may have different understanding about what a project is doing and what the objectives are, for example an RPM may be expecting policy and governance outcomes, in country staff may view households is most important and the project is working for practice change.

3.4.2 Forestry Case Studies

Interviews were undertaken with teams from two Forestry projects on 18th May and 21st June. Participants were from the National University of Laos (NUOL), NAFRI (MAF), University of Melbourne and Australian National University (ANU). Follow-up interviews were held with two researchers from NUoL and one from NAFRI. A past ACIAR Forestry RPM was also interviewed and an informal discussion was held with the incumbent RPM.

The series of Forestry Projects in Laos commenced in 2007 with an ACIAR commissioned technical report "Towards improving profitability of teak in integrated smallholder farming systems in northern Laos" (Midgley et al 2007), although it should be noted that Australia has been undertaking research and development activities in the forest sector in Laos since the 1970s (see Bartlett 2016, Phimmavong et al. 2009). The 2007 technical report spurred investment by ACIAR in research on two themes: one aimed primarily at wood processing and markets and the other at teak silviculture and farmer livelihoods. The themes were subsequently researched in parallel by separate teams, with some limited interaction. This case study analysis focusses on the former of these themes.

The first ACIAR wood processing project "Value-adding to Lao PDR plantation timber products" (FST/2005/100) "VALTIP1") ran from 2007 to 2010. It was a largely technical project and focussed primarily on enhancing the range, quality and value of products produced from plantation grown timber in Laos, and building capacity at NUoL. During our interviews the project leader commented:

> *"Development of the project started in 2006, originating with the then RPM. The main focus on capacity building….at universities, there was no equipment, no library about wood science and technology, there was practically nothing….It was mostly research oriented. **It wasn't policy**, we **didn't have many meetings with government to talk about developing policies**. But it was strong focus on science on research and capacity building."*

While the project included partners from policy-making organisations and referenced various relevant policies as context, policy impact and influence were not stated objectives. Nevertheless the final report for the project claimed "The ACIAR project has played an important role in assisting the Government of Laos in **the implementation of the policy on the development of a downstream wood processing industry**", evidence primarily through the research of two Ph.D students studying in Australia. Both of these students had returned to NUoL and had participated in ACIAR projects and were interviewed both as part of the research team and separately.

Case Studies

A reference committee was formed in VALTIP1 which was thought to have been effective from the perspective of the technical research, but other less formal approaches were also useful:

> *"For VALTIP1 project steering committee was very active and, and it was very useful Actually, it provided a lot of provided a lot of support to the project. In particular the industry group, it was forest and furniture industry association group. And we decided to form social club,...every two, two weeks. Companies, anybody could be invited any company could be invited to the social club meeting and they had beer and some snacks and discuss about what has been done and also discussion, what else should be done, how it should be implemented.... What support industry would need."*

The EoPR for FST/2005/100 noted that the successes of the project arose because it was well aligned with the Lao Government's Industry Assessment Program (under the Ministry of Industry and Commerce) and that there was "a similar opportunity .... **to align a new ACIAR project to another highly relevant Lao government policy**, being the [then] newly released National Export Strategy for the period 2011 – 2015 (NES)" and also the Forestry Strategy 2020.

But interaction with policy makers or policy making was difficult:

> *"In the first project, it was quite difficult, actually difficult to, to have interaction with government. You know, for example, we had a project steering committee and government was involved that when they were coming to meetings, they were all very interested. But when we had some questions, and we wanted to support, they didn't provide it."*

As VALTIP1 was reaching its end-phase ACIAR commissioned a scoping study into "Payments for Ecosystem Services and Planted Log Value Chains" (Midgely et al. 2011). That study identified major constraints and opportunities for research and development across the value chain for plantation-grown wood in Lao PDR. What were thought to be the key elements of the value chain which required intervention to increase returns to smallholders, wood processors and manufacturers were identified, and these were used as the foundations for developing this project proposal.

The key issues identified were:

- Improved knowledge of the extent of planted teak and the measures needed to enhance log quality.
- Enhancing the role of grower groups in addressing value chain inefficiencies.
- Improving response to increased global demand for legal wood products through development of forest certification and chain of custody systems for forest products. Lack of legality of the resources limits market opportunities due to restrictions in Europe (FLEGT), Australia and North America (the Lacey Act).
- Adding transparency to the **formal regulations** and procedures for plantation logs and timber,
- Improving farmers' understanding of log pricing.
- Improving efficiency of harvesting and transport systems.
- Improving value adding for plantation grown wood through technical improvements in wood processing and manufacturing.
- Improving product design and manufacture.
- Enhancing the skills of the people working in the Lao wood industries.

Subsequently ACIAR commissioned a second phase of VALTIP, called "Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR" (FST/2010/012, "VALTIP2") and a separate study into "Effective implementation of payments for environmental services in Lao PDR" (FST/2011/003).

VALTIP2, which ran from 2012 to 2016, introduced a number of new research questions that drew attention to policy, governance and legal barriers to smallholder participation in teak value chains. These questions were:

- How can barriers to **legal registration** of smallholder planted trees be addressed, and transaction costs in their sale and delivery be diminished?
- What forms of grower organisation and group certification are feasible and sustainable, and will improve returns to smallholders?
- Which **strategies** can be applied to improve productivity and quality in wood processing and manufacturing to improve competitiveness in global markets?

- What **strategic actions** are needed to improve the international competitiveness of the Lao wood industries?

The FPP tied the project research objectives closely to both the National Export Strategy and the Forestry Strategy 2020 as recommended in the EoPR for VALTIP1, and the project attempted to establish another reference committee, as it had for VALTIP1, however it was less effective:

> *"So it was hard to get government to engage in the steering committee…… it was hard to keep that going. And it wasn't always as useful as, for example, informal conversations with someone at the end of a project workshop."*

The Final Report for the project reported that research and analysis on various topics had **"provided the basis for the identification of policy and regulatory constraints,** the development of proposals for more efficient approaches and the discussion of these approaches with relevant authorities and with participants in the supply chain". Project outputs included reports focussed on policy issues and Policy Briefs which were provided to relevant stakeholders via workshops and meetings. They were also used for backgrounding a new policy-focussed project ADP/2014/047 (refer below).

VALTIP2 produced several policy-oriented outputs which framed and re-framed key messages in various formats in an attempt to reach policy making. Several of these were reviewed in this analysis. There is evidence of take-up from these either directly or via other pathways. For example, the method developed and applied in Smith (2014) for smallholder plantations was subsequently utilised by Smith when she was engaged by GiZ, FAO and MAF to undertake the development of a Legal Compendium to the Forestry Law in 2015, and by the World Bank and FAO for a similar piece of work for the Wildlife Law. But little immediate momentum was achieved for reforms based on the actual project outputs, which was in part due to lack of resourcing and capacity in the Department of Forestry (primarily the Division of Plantation) which meant it was difficult for the project to finding the right target for the outputs. We were given examples of how research was designed to be 'for policy' but ultimately did not end up influencing it:

> *"One of the most important activities was to develop a market strategy. And we were supposed to work closely with the Ministry of Industry and Commerce, they had a group developing markets for not only timber industry, but any industries. And this particular group was very interested in helping develop this strategy. Our aim was to do research and* ***they said "you do research and we will turn into policy and develop strategy". But it didn't work.*** *We'd done a lot of work on market analysis, market structure, trends, possibilities for our products, competitiveness, and, and we gave it to Ministry of Industry and Commerce. But then finally, they said that they don't have capacities, they don't have people who are skilled to develop the strategy. And it was just left unsolved."*

> *"And when we had a meeting with Department of industry and Ministry of Industry and Commerce,* ***they usually sent very junior people who didn't really know what they supposed to do, what are they supposed to collect****? What information? And then it I don't think it was not very good interaction between this particular people coming to the meeting and then going to their seniors and providing information on what hasn't been done." (BO)*

> *"It wasn't dialogue between, you know, research, researchers doing this project on market strategy, and trying to explain to government policymakers, what we are doing, is it okay, is what we are doing what you want, and they didn't give us this feedback.* ***They didn't give us any resources for our work."***

In discussing this with the ACIAR RPM who was responsible for VALTIP1 it seems that while the government had policies in mind and even what the goals of those policies were, they did not really know how to get there.

> *"It was largely about the Lao stakeholders, talking to us as a group about what they saw the future priorities. Now, in the case of the forestry program, the people in MAF at that time, you know,* ***they were basically just talking about the very high level policies*** *…. you know, things about…trying to increase the tree cover in Laos, to some unrealistic figure and, and then, you know, trying to develop value added forest industries, and so on, so on those type of things. And they had, in my view, limited real understanding of …the challenges and opportunities, prospects for taking Lao forestry from where it was to where it needed to go. So you know, that* ***it wasn't an ideal policy dialogue,*** *really. And we didn't really get strong directions about what they wanted."*

Case Studies

One Australian researcher noted:

> *"Some of the personalities of the people that were involved …they were quite difficult to engage with, I found that there were some particular people who either didn't really understand what the project was about or couldn't see its relevance to what they were doing. And I think that the project made several efforts to try and have conversations with the people in government that we thought we should be talking to, on but it was very hard to get useful responses back for them from them. Or to see the level of interest in there."*

The EoPR for VALTIP2 noted:

> "The **greatest potential for impact** and hence benefit for all participants across the value chain is **in the area of plantation policy and regulation**. The plantation industry is stifled by regulation and costs. The **project has mapped the policy and regulatory framework** and identified the transaction costs across the value chain. It has also **established good linkages and awareness with policy makers** and others involved in reviews of the Forest Law and Decree 96 covering plantations. Prime Minister Order No.15 brings greater urgency to the policy and regulatory review process. There is perhaps a once in a generation opportunity to create a positive environment for the development of a viable plantation-based industry in Laos and the outputs of this project and the proposed new project can continue to play an important role in improving the plantation sector value chain."

> "In broad terms **the most valuable impact** to date is the capacity building given the limited capabilities in Laos, followed by the operational improvements in some sawmills and manufacturing plants. **Effective policy reform and resource knowledge would have the greatest long-term impact across all elements of the value chain and there is some momentum in this direction**. The Government has set a timeframe to revise the Forestry Law (draft to be at the National Assembly in September 2017) and the Plantation Decree (March 2017). The problem is that the bureaucracy associated with other sectors along the value chain may not also make changes, and it can take a long time for changes to be properly implemented (e.g., down to the Province, District and village level)."

It was not until after the project had ended, however, that two new regulations reflecting some of the recommendations made by VALTIP2 for reducing barriers to trade in plantation grown wood were made.[9] This did not mean the issues were fully resolved; not all recommendations were taken up and despite efforts to meet with an discuss these further with government officers, getting a clear picture of why certain restrictions remained in place was difficult.

> *"we set out to try and document the facts…. as we could best discover them, and then build a policy response from those facts rather than if you're like developing policy on the basis of poor information or opinion, which, which was sort of where we began in relation to a lot of the things that object one was investigating"*

The project leader reflected that the ways in which information is presented is important:

> *"I think what, what is often wrong in this type of project is that we produce a large report 100- 300 pages. and, obviously, policymakers, government, people don't have time to read it and they are not interested to read it. And we learned in VALTIP2, we learned that it's important to do this very, very, very short report, like, for example, policy brief, which had only mostly dot points; and government, and any, any consumer, any, any industry people or whoever was interested in the project could actually relate and understand the project outcome. And I think in any future project that is important….. And in VALTIP2, we have done quite a lot of work on developing this very short, policy briefs, project briefs, recent research results in one two pages…. not only writing but also some pictures showing pictures, which is more informative."*

Midway through VALTIP2, ACIAR began developing a new project in its then new Agriculture Development Policy (ADP) program area on "Improving policies for forest plantations to balance smallholder, industry and environmental needs in Lao PDR and Vietnam" (ADP/2014/047, "LVPPP"),

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[9] These were: Instruction No. 3662/DoF on Plantation registration certification, dated 28th December 2017 and Instruction No. 3659/DoF Implementation of harvesting and moving for plantation wood, dated 28th December 2017

which commenced in 2016. That project was designed to build on, complement and support the other FST projects, and was specifically aimed at policy impact noting the "**need for research to support design of improved policies**, such as changes to legal and regulatory frameworks and incentives, improved communication and education, or funding programs to support improved linkages between industry and smallholders…..**research is needed at national and sub-national levels** because **integrating policy** into sub-national planning and legitimizing views and support at local level is essential for **realising the benefits of policy changes**". Inter-country learning was an important component of the project, which adopted multi-disciplinary approaches to research and evidence provision to support policy making processes. It initially ran until March 2019. The goal of the project was much more explicit in its policy focus; an interviewee commented

> *"Yeah, definitely. The goal was to influence policy and the context was the National Forest development strategy"*

> *"… what we're aiming to do is really gather the evidence base of the social and local economic implications of these different land acquisition and plantation investment models. And, and that was in order to inform the government about the way in which the current policies were working, and where some of the impediments and barriers were to achieving the policy goals. And to help or to work with them on a design of new policy options that would help overcome some of those barriers and issues. Another major part of the project, as I said, was a collaboration with Vietnam. And to get some cross country sharing of knowledge and experiences and to build ongoing collaborative relationships with between researchers in the two countries in this sort of policy and economic, socio economic research area have been a reasonable amount of technical cooperation on some of the technical aspects of plantation tree growing, but less on these on these social, economic and policy related aspects."*

The formation of a steering committee of policy makers was core to project design:

> *"So I guess some of the key things in relation to have a policy impact were to engage policymakers early in the process. So we initiated the project with workshops involved involving some of the senior policymakers where they were giving presentations on what they saw as the key issues and challenges that needed to be addressed and where research might make a difference. And then designing the research program around those objectives are being spelled out by the policymakers. And then we had regular engagement with them, policy people on the project steering committee in and in the, in the two countries…"*

The Mid-term Review (MTR) for LVPPP reported credited that project's good performance to:

- a project development visit that **confirmed the research issues and gained support from Governments officials and policy makers**. It also helped in engaging with potential research collaborators.
- the formation of the **project steering committee and advisory group** which were effective, with open and frank comments and highlighted any issues along with **advice for the target policy audience**.
- **the timing of this project** which coincided with **political interest in revising forestry policies** and the indications to date give confidence that the project's output will be used by the national policy makers.
- strong existing experience and knowledge among the Australian team members of the forest policy situation, together with existing links to experienced policy researchers.

This latter point was facilitated through participation of Australian team members in LVPPP and VALTIP2, and also through other long-standing research and teaching in Laos. The Lao project leader was one of the two PhD students from the VALTIP1 project and several Australian team members had been running field schools on forestry for several years prior to the project commencing. The genesis of the project was through this course, and the connections it had made with the private sector.

> *"This situation represented a good opportunity to capture evidence that of the different types of approaches and compare the different models and provide advice to government on alternative models in there, or alternative policy arrangements that would work better to facilitate investment in plantations that would make their national goals."*

Case Studies

> *"We were having those conversations each year with the, with people from senior policy people from within the government agencies, and also with people like saying, at the university and other others from the NGO community, World Bank and international agencies. So I guess I, the ideas were kind of emerging out of those sets of discussions."*

Specific training in policy and policy research, and 'Policy Forums; bringing together stakeholders from different sectors and from the two countries involved were a design feature of ADP/2014/047. Forums were designed to enable stakeholders to co-resolve specific challenges identified during the research activities and policy briefs (refer Appendix 1, 9.2 Section) were produced and circulated.

The Final Report for the LVPPP project claimed that:

> "**The project has demonstrated policy relevance and impac**t on new laws and policies. Relationships with policy makers and industry were developed through annual plantation policy forums and regular meetings in each country. Good design, strong engagement and collaboration between researchers and government, industries, NGOs and practitioners across the three countries has led to new relationships and new thinking about plantation challenges contributed to the success of the project. The project team has built capacity through training workshops in policy and economic analysis, and collaborative research, data collection, and publication and post-graduate training in Lao and Australian universities. Results have been presented at international conferences and related initiatives."

The EoPR for LVPPP noted:

> "The project has been very timely, particularly in Laos, and **is demonstrably influencing the Forestry Law currently being drafted and other regulatory decisions**. The project has been very favourably recognised by other actors in the sector, including the World Bank, IFC and private companies. The project team has been able to play a constructive role in bringing different actors together, particularly international actors operating collaboratively. In some ways, this project has provided a focal point to draw in knowledge from other projects, both ACIAR and other funding sources. In interviews with stakeholders, the lines between this project and other ACIAR funded projects were sometime blurred, which demonstrates the successful seamless interaction across projects from the perspectives of stakeholders or other actors."

There are certainly signs that project researchers – both Lao and Australian – have been able to take research results into policy making processes which has influenced the making of new policies related to plantations in Laos. By way of example: in 2018 two team members co-coordinated, with another donor organisation GiZ, a national technical workshop on tree plantations in Lao PDR following which the Department of Forestry requested that those two partners (the ACIAR project and GiZ) coordinate 'planation related' submission on the review of the Forestry Law.

Taking policymakers to research and grounding recommendations in reality was also important. One researcher from NAFRI gave an example of a vice minister attending a meeting in Luang Prabang where he heard the results of a project on plantation tax and plantation decisions.

> *"There was a project to cast light on the processes, duplicate collections, various policies and regulations were conflicting. And he (the Vice Minister) saw this and understood the problem deeply. So, this had impact, right? After that, he directed that there be a meeting to update referring to a "review" Decree 96 regarding "fees plantation promotion" you know?"*

Certainly, having sustained presence and being able to participate in events and meetings when they arise, which is not always predictable of can be planned is important. To factors are important having a proactive and well-recognised in-country leader and researchers who are able to engage in processes.

> *"If I was asked for advice, how to be successful with an ACIAR project in particular country, I would say, it is very important to have good country coordinator. And in our case, [she] is very well recognized, highly respected by government and, and obviously, relationship is very important. (BO)*

> *"main part of our strategy was to have someone sit in his office, as many, you know, for as many days and many times as possible."*

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But it also needs to be recognised, that researchers or team leaders, who may be excellent scientists may not be the right people to participate in 'policy processes'. Good teams, and partnerships can help address this.

While ACIAR forestry project team members continued to coordinate comments on the Forestry Law, coalitions of stakeholders were forming around a key issue of finding ways to enable access to land for corporate investment in plantations. The research from LVPPP (e.g. Smith et al. 2016), and the information and discussion held at policy forums (e.g. Keenan et al 2017) had both garnered support for the idea of opening access to degraded areas within production forests for plantations and identified and proposed solutions to some challenges (e.g. Van der Meer Simo et al. 2017). Project activities, such as field trips, and the informal interactions around them enabled policy makers to engage directly with researchers:

> *"Yes....So we, we have regular meetings and conferences and excursion at for example, a one meeting in Danang the acting's DG of DOF asked me that, "so, we want to open the national production forests , So how can we do that? And so, how can we be sure that the benefits sharing scheme are how can we guarantees the impacts our local communities?" And he keeps asking any key learnings from this process on release? And, and advice?"*

The private sector 'ran with the ball' and advocated for the concept directly with the government, particularly MAF.

> *"...partnerships with the private sector were a strong component of the project design. And there were lots of occasions, different types of occasion, whether it's a formal meeting or a casual conversation where there were, you know, the sharing of information between the project team and the private sector that lent weight to the strength of the information that was provided to policymakers, it wasn't just here's some research results, it was a combination of here's some recent research results, and here's what the private sector thinks of those. So I think that was certainly influential. It's like, it's not really written in a report, and you don't necessarily see it in, you know, a piece of law, but I certainly think those collaborations were important in that process."*

> *"...they (companies) were much better equipped to have a conversation about the right sort of policy arrangements with the industry than they had been previously."*

In mid-2018 the government lifted a ban on plantation-concessions that had been in place since 2012 and which LVPPP had identified as a specific barrier. The ACIAR projects were not alone in addressing this issue; others, such as CDE who were undertaking, with MONRE and MPI, an inventory and review on the quality of land concession investments and GiZ, who had been providing sustained support for regulation reform under the Pro-FLEGT program, were influential. Other factors converged that meant the ACIAR projects' results and people were in the right place at the right time; amongst these were the need to progress a response to a logging ban and log export ban that had been introduced in 2016 (PMO15) and that was affecting wood supply to industry, and the impending 2020 Forest Cover target that was looking unlikely to be met.

The EoPR for LVPPP also noted:

> "While many of the project team's members have a previous association with both Laos and to a lesser degree Vietnam, the activities in the project over the last three years has provided an opportunity for project staff (both international and local) to build a high level of respect for the ACIAR funded program. This has been achieved through strong consistent engagement with stakeholders (through the project meetings, forums, and dialogues) and the knowledge and evidence collected in the project. **Importantly, this has led to influence to current issues in both countries. The policy gaps are still current, and if possible with the ACIAR budget, it would be a missed opportunity to stop all investment at this point in time.** A comparatively modest amount of continued funding will leverage greatly off the original project investment. This would support the Lao Government in particular, and also the Vietnamese partners and Government in managing changes in laws and regulations over the next 12-24 months which have the potential to significantly improve the impact of the sector for smallholders, provincial or regionally based companies and the state in both Laos and Vietnam."

When asked about his expectations of the ways LVPPP project research evidence might impact policy, the ex-RPM commented:

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> *"There was no point doing it if you just wrote reports or journal articles, and nobody took any notice of it. So my expectation was that .. in the design of the projects and the variety of mechanisms that were being used, some of which was direct policy interactions, and some of which was, you know, the kind of learning by doing approach, taking policymakers to Vietnam, to see how they were doing things holding, you know, joint meetings, in alternating in countries, so that people understood each other's context and learnt from each other, and building this kind of collaborative approach between the Australian researchers and in country partner researchers."*

In response to the reviewer's comments LVPPP was extended until December 2020 through an SRA "Policy analysis for forest plantations in Lao PDR and Vietnam (FST/2019/121, "LVPPP+"). The intent of LVPPP+ was to sustain the momentum of LVPPP at a time when Laos and Vietnam were both making significant regulatory and policy reforms, with a focus on adoption facilitated through regular meetings with senior policy makers and by producing project outputs in a form that is suitable for incorporation in policy documents and decisions. Its objectives were:

1. I**nform development of new laws, decrees and regulations** for forest plantations in Lao PDR and Vietnam based on the outputs from Project ADP/2014/047.
2. Engage policy makers and stakeholders in dialogue on **new policy options** for forest plantations.
3. **Better inform policy makers** of the regional and national economic impacts of forest plantations.

Many of the in-country activities planned for LVPPP+ were unable to take place due to COVID19, however, several activities did enable ongoing transfer of project findings into processes and that were then continued by others. As an example, team members from both VALTIP3 (see below) and LVPPP, were asked to make presentations at a meeting of the Interlaken Group in late 2019 which brought together donor, private sector and government stakeholders, around the issue of plantations in production forest areas (Trip notes Smith 2019).

> *"But I think most was most of it was built around a sort of most of what mattered was built around the sort of relationship of trust increasing trust between key stakeholders and the project team. Know, facilitated by or broadened by the sort of public activities."*

Building personal trust and professional trust in the research, with many sectors is important.

ACIAR sustained its investment in the Lao wood processing sector through a third phase of VALTIP through the project "Advancing enhanced wood manufacturing industries in Laos and Australia" (FST/2016/151, "VALTIP3"), which commenced in April 2017 and is ongoing and extended until March 2022 due to COVID19. Drawing on the findings of VALTIP2 and LVPPP and LVPPP+, VALTIP3 included an explicit policy-oriented objective to: "**Identify the key elements of the policy, governance and administrative environment** that constrain the development of plantation forests and value chains in Lao PDR, and other constraints to improving plantation value chains, and develop strategies for engaging with this environment and improving plantation value chains."

While this objective seems to duplicate aspects of its precedents, the cross-over between the timing of the end of FST/2019/121 and the start of FST/2016/151, plus the inclusion of team members who had been involved in both, meant that the earlier momentum could again be sustained. In particular, for the stakeholders who were increasingly using the research results (e.g. World Bank ASA, LLL development, GIZ VPA), there was some continuity. In 2019, after providing an update to the Department of Forestry, for example, the Director General requested a written briefing, based on value chain assessments undertaken by VALTIP3, on the impact of PMO15 on the teak sector (Smith 2019), for him to take to an internal government meeting. Also, around this time, the VALTIP3 team were working with GiZ and MOIC on new regulations for the wood processing sector. This new relationship with MOIC had come about through the earlier collaboration on the legal framework for the plantation sector and a change in personnel at MOIC - with a new DDG (a graduate of the ANU Crawford School) and new directors involved.

> *"….as you become familiar with how connections between research and policy making or policymakers work or connections with the industry, then I think, you know, those more formal, that that particular format that ACIAR requires probably became less important, and other ways of connecting to stakeholders, including industry ….built up a virtuous cycle of positive interactions with the industry stakeholders that fed back into their connections with government…… connections to other policy actors, to the other*

development agencies, and so forth … all of those things became sort of more of a virtuous circle in a sort of network way, I think, that helped get the message of what the project was finding and thinking out" (PK)

"...by the end of a four year project.... you really tend to find one or two people that you can easily and freely share information with and have much more open discussions about "we've got these results, what do you think is the best way to bring them into … the Department of Forestry" And so from a project point of view, we often end up with a, for example, someone in the planning and international cooperation section of a ministry or a department as a liaison person. So they become quite important in establishing a personal relationship. They're not really the policy target, but they might end up being like the policy conduit to the policy maker in the end, to give you that unfettered advice on the best pathway for you to take to have your evidence heard."

"....getting both evidence for the forestry side of policymaking, as well as not so much the specifics of technologies, but processing standards in general, that was certainly better heard, because other projects took on board our research evidence, and they also took it to their conversations with policymakers."

The profile of, and demand for, Lao project team members to participate in 'policy processes' had also increased. Several researchers at NUoL and NAFRI were being promoted and asked to contribute to the development of strategies such as revisions to the Forestry Strategy 2020.

"And we have seen a lot of positive improvements in a policy document of the government after the projects. So in my opinion, the policies has been quite significantly impact from these projects. And for example, like VV, and I have been nominated to be the committee on forestry strategies. So, we have a consultation workshop many times in 2019–2020. So, at that time, we were able to, to feel our research findings into the into the policy process. And for example, if we read the national green growth strategies, or the World Bank study, we will see some of our reference from the projects in a document, I think I think they see the impact that the project has made."

Lao team members were asked whether before the project, did MAF contact or interact with them around policy making?

"So in the past no, because research based policy development in the past is very, is very poorly applied. …. the policy is influence is specified by the data collection …. on the priorities, policy advice from the leaders, second things is maybe influenced by donors or private sectors influence".

The Project leader of VALTIP2 commented that building capacity is important and policy is not always necessary:

"I think it has been implemented by University National University of Laos, because this researchers and students are very highly trained and now say they are providing training to industry, there is very close interaction between industry researchers who can go to their companies and advise them what should be improved... I think, we don't need policy here because capacity building and training provided by industry by researchers and industry and also research they can do by themselves."

The long-term nature for the VALTIP investment and the targeted policy-oriented activities of LVPPP had converged at a time of particular policy need in Laos, and the built-capacity of Lao team members and the presence of Australian team members had enabled penetration of the on-going processes.

"a lot of a lot of our ability to penetrate some policy space has been good fortune and timing as much as anything and more recent changes in people." (HS)

But as the project leader for LVPPP notes, it is difficult to align research and policy needs:

"The materials needed to come at the right time and be in the right form, and relevant to the decisions that were under question. We didn't really nail that with this project..... we were forming up our policy originally made recommendations at the same time as we're doing kind of research in the field. So it was often not as well informed by the research outputs as this we would like.... it's better to get something in early even though it's not fully evidence based"

However, for some policy makers, having complete research may be less important that having at least some timely information. At one LVPPP steering committee meeting a committee member commented.

> *"It is better to have some information even if its not complete than to wait until the project is finished."*

An officer from the Department of Policy and Legal Affairs in MAF, while being interviewed in association with Rice projects noted:

> *"In the past my team …. are looking for this kind of information and one ACIAR project that we can see clearly is forestry law that's come from. And I don't remember a certain title or name, but it's about plantations… And at that time, the government and the ministry working on revising forestry law, and they come up with a series of good information on policy brief. And we're analyzing this, the MAF team, including me we use that kind of information, from project"*

As the VALTIP series of project commenced, a project undertaking an "Exploration of teak agroforestry systems in Luang Prabang, Lao PDR" (FST/2004/057) was also initiated. It ran from 2008 to 2012 and focussed on investigating improvements in the silivicultural management of Teak woodlots. That project was granted a one-year extension from 2012-2013 under a SRA to support the development of a new project "Teak-based agroforestry systems to enhance and diversify smallholder livelihoods in Luang Prabang province of Lao PDR" (FST/2012/041, "LATARP") which ran from 2013 to 2019. In 2019 a third investment in this series of projects commenced called "Supporting agroforestry through tree improvement and gene conservation in Lao PDR" (FST/2020/119). That project aims to expand resources for the production of improved teak seed, and to set up trials to demonstrate the potential benefits from use of tissue culture to multiply elite genetic material. **Linked to the Lao PDR government's policy targets for the restoration of forest cover** in Laos, with the objective of achieving 70% forest cover in 2020, impacts of the project impacts are expected through encouraging and supporting individuals, communities and corporations to plant trees and to assist in the protection and rehabilitation of degraded forest areas through resources to enable and support the implementation of agroforestry and tree planting by smallholders in northern Laos.

The LATARP project had less of a policy focus that either the VALTIP of LVPPP series, yet they provided important information to support policy recommendations to the Government, In 2016 researchers form the three projects came together to produce a Policy Brief on "Smallholder Teak Woodlots and Agroforestry Systems in Lao PDR: Enhancing the efficiency and sustainability of the planted forest industries in Lao PDR in the series "Research Findings with policy implications", which was influential in reforms in the sector that manifest in regulatory changes made in 2017 and again in 2020, with the making of new, more detailed instructions on plantation registration, particularly in relation to initial stocking densities of trees[10]. While it took some time for the research results and the recommendations to be made, they did eventually result in change.

> *"So, you know, with the work that was done on teak initially, until there was some substantive science based work done, I don't I think you could have actually have had much to say, from a policy perspective. And the environmental services was probably a bit different. There was a concept that was, you know, which is largely a policy concept, which was known and understood, and needed to be figured out how you would adapt that in the Lao context. So we came at it from different ends of the spectrum, really, in those two examples…"*

That project demonstrated the value of having field sites - something to look at – not only for policy makers but for the people who are the targets for new technology or of policy interventions, which may not be easy for very policy oriented projects like LVPPP.

> *"we also want to influence farmers, not just policymakers, because you can have all the great right science in the world but then if no one will do it because they have a belief that trees should be planted at 2000 stems per acre rather than 1000 or 800, you know, you haven't won the battle….. So you can have a policy that says, you have to plant this many*

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[10] This refers to a recommendation to lower the initial stocking rates mandated in Directive No. 1849/MAF 1999 on Plantation Registration, which the government did in a new Instruction No. 2492/MAF on Plantation Registration, in 2020.

> *to get.... government support, and that might be wrong. So you've got to influence policymakers, but you've also got to influence farmers minds."*

These comments are referring to the LATARP project that used a Nelder wheel to demonstrate the effects of different stocking and spacing on tree growth (Pachas et al 2021)

3.4.2.1   Findings from Forestry Case Studies

- Scoping studies, SRAs or other types of investigation are useful in the design of full projects to ground the project ideas in a diverse set of perspectives other than a purely having technical focus.
- Research projects targeting policy should be designed with policy makers and include early policy maker engagement.
- Project reference groups can be useful in sustaining connections and communication between policy makers and researchers. This requires working out who has a role and what role that is in policy. This is not just about being told who policy partners should be; projects identify people they think they should be talking to, but these might not be the right people to result in up-take and impact. Reference groups need to be budgeted for.
- Personalities and personal values matter. Researchers or team leaders, who may be excellent scientists may not be the right people to participate in policy processes.
- Proactive and well-recognised in-country leaders and researchers are needed and who are able and willing to engage in processes.
- Proactive, intentional and resourced capacity building in policy research and practice may need to be designed into projects.
- Project and people continuity is important (between investments). Sustained presence of researchers retains personal connections and momentum.
- Involving other countries to show where and how recommendations can work is useful but care need to taken about which countries these are, including considerations of current and historical geopolitical relations.
- Private sector participation can be mutually beneficial and aligns with ACIAR's goals to build capacity in policy. Partnerships can produce positive and durable outcomes that can be transferred into other ACIAR projects. However, relationships are not without challenges – for example the private sector not liking some of the 'critical' academic outputs. This highlights the need to establish the boundaries and nature of the partnership in advance.
- Policy impact can if often serendipitous. Researchers need to be aware of, be present in, and have evidence for issues as they arise.
- The value of research for policy is not always immediately apparent to the research team.
- Building policy recommendations about facts might not be enough. The value of having field sites - something to look at – is useful to ground recommendations and evidence in reality - seeing is understanding.
- How facts are presented is important - not just as apparently 'clear evidence' by the style and language and length of reports and the stories.

3.4.3   Livestock

ACIAR's research and development investments in livestock and animal health in Laos have been extensive and long-standing. They are summarised here across the following primary themes: cattle and buffalo, pigs and poultry, with projects focussed on cross cutting themes such as extension and biosecurity also included where relevant. Interviews were undertaken with project team members from cattle projects on 9th August 2021 and an interview was undertaken with the Animal Health RPM on 28th September 2021.

3.4.3.1   Cattle and buffalo

In 2006 a Scoping study for research opportunities supporting cattle and buffalo health and husbandry systems for Cambodia and Laos was undertaken (AH/2006/077). That SRA was intended to inform the development of a full project proposal by confirming the key concepts and research issues, including economic drivers for enhancing large ruminant productivity are captured in the proposal, defining the role for ACIAR within the suite of current projects occurring in each country and identifying the key partners, personnel, preferred locations and budgeting details required to progress the proposal.

The final report to the SRA noted that:

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> "The **impact of this SRA on policy** was the confirmation through the meetings, field visits and workshops, that the key concepts and research for enhancing large ruminant productivity were captured in the subsequent project proposals".

Subsequent to that SRA, a Full Project Proposal (AH/2006/159) "Best practice health and husbandry of cattle and buffalo in Lao PDR" was approved, commencing in 2006 and running until 2012. Its primary aim was to improve smallholder **knowledge** of large ruminant disease control and husbandry, with objectives:

1. To confirm current knowledge of disease limitations to large ruminant production.
2. To implement, test and demonstrate the value of interventions preventing key diseases, preventing introduction of diseases and managing reproduction.
3. To assess attitudes of farmers in targeted communities to health, husbandry and market issues.
4. To improve knowledge of the cattle supply chain and key drivers for change in the targeted communities.

There was an **expectation that outputs from the project would be applicable to, and used by, policy** makers, and some limited processes were included to facilitate results dissemination to these stakeholders. However later publications (e.g. Young et al., 2014) indicated these remained unresolved.

> "Public policy including supportive legal and policy frameworks, improved infrastructure, and collaboration with the private sector are generally needed to foster smallholder market integration. Policy interventions need to be prioritised and sequenced according to evidence-based diagnosis of the constraints faced by different categories of smallholders, particularly as evidence-based policy-making minimizes the risks of policy failure."

Members of the project teams indicated that in designing these early investments the idea was that the approach should be production-oriented.

In 2007, while AH/2006/159 was ongoing, a study on "Cattle and buffalo in Cambodia and Laos: The economic and policy environment for smallholders" (PLIA/2006/012 – Part 2), was also undertaken under ACIAR's then Policy Linkages and Impact Assessment Program (PLIAP). That study was "concerned with the economic, policy and institutional environment that shapes decision making by households raising cattle and buffalo in Cambodia and the Lao People's Democratic Republic". It explored various barriers to the development of cattle markets, including institutional and governance-capacity barriers, those related to market access, and extension, amongst others. Excessive and complex regulation and provincial autonomy and their impacts on livestock marketing were identified as reducing incentives for producers to participate in the market.

The report emphasised as an imperative the need for ACIAR's projects to collaborate "with agencies that are helping to address the policy, institutional and infrastructural constraints that create these disincentives". The agencies referred to were better-funded other development partners such as the World Bank or ADB.

The Final Report for the project stated that there had been close collaboration with an ADB project "The Northern Region Sustainable Livelihood through Livestock Development Project" which started in 2007. We reviewed the documents from that ADB project (ADB 2007, ADB 2007, ADB 2015) and found no direct mention of collaboration with the ACIAR project. While this does not mean there was not any collaboration is does mean that it is difficult to trace potential impact via this pathway and the validity of the statement in the PLIAP that this type of collaboration is an imperative for take-up of ACIAR research.

The Final Report for AH/2006/159 noted:

> "The project confirmed that several best practice interventions are required to increase productivity and profitability of smallholder cattle production. **The systems approach used to addressing the multiple health and productivity constraints proved very successful** in engaging farmer cooperation and is recommended for extension workers, **researchers and policy makers** aiming to facilitate smallholder cattle production in the Greater Mekong Subregion (GMS) as a means of addressing both regional food security and rural poverty."

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Although mentioning the potential utility of research methods and results for informing policy, no specific policy impacts were reported. The EOPR noted **that results were communicated to policy makers but there was no reporting of the level of take-up.**

Two further cattle/buffalo animal health projects followed soon after the completion of AH/2006/159, based on recommendations from AH/2006/159:

- AH/2012/067, Enhancing transboundary livestock disease risk management in Lao PDR, which ran from 2015 until 2019 and aimed to address the constant threat of transboundary animal diseases including foot-and-mouth disease (FMD), a major constraint of transboundary animal disease risk to the sustainable expansion of livestock trading in Laos and beyond.
- AH/2012/068, Development of a biosecure market-driven beef production system in Lao PDR running 2015 to 2020 which had as its objectives (i) understanding and strengthening the beef value chain; (ii) developing a market-orientated biosecure and improved productivity approach and framework; and (ii) improving reproduction and breeding management of large ruminants to achieve a more sustainable beef supply in Laos.

Operating largely in tandem these two projects both **expected some policy impacts**:

- AH/2012/067:
  - Greater awareness of disease impacts to guide both individual and national (policy level) decision-making …"outputs will likely provide important **independent information** for national and regional **policy-makers**"
  - Project information dissemination will be aimed at the broader livestock stakeholder community, including smallholder farmers, VVWs, government veterinarians, extension workers, aid and research agencies, **as well as policy makers**.
- AH/2012/068:
  - Identification of strategies that best address the key constraints to large ruminant reproduction and breeding management, leading to development of sustainable interventions and **improved policy support for increasing national beef production** in Laos
  - The proposed risk analyses will enable stakeholders from farmer to **policy-maker** to better understand and apply sensible biosecurity measures throughout the market chain.
  - "….**expected economic impacts include**… **policy developments** that facilitate improved transboundary animal trade practices and lead to national economic impacts that we intend to calculate during the project".

The involvement in the project of students from undergraduate through to post-graduate levels and subsequently employment in relevant organisations was flagged during the interviews as significant, as was contribution of the project team to reviews of curriculum at NUoL including upskilling and capacity building of people in science and relation to policy. But there was acknowledgement that

> *"the policy impacts have been less coordinated, but have still occurred, but more piecemeal, rather than consolidated"*

The team reflected that having some flexibility and being able to opportunistically address issues as they arose or were identified by stakeholders was important; this was something the ACIAR project design allowed them to do. These stakeholders and their issues were identified through village meetings, and these also helped determine the planned project interventions. Overtime "*it's developing brains trust group*". There was an emphasis on that group and the project interacting with relevant provincial people.

When asked in interviews whether policy had been the initial idea of the projects, team members stated that project AH/2012/067 was directly related to policy and was intended to be a trial project and would lead into subsequent projects.

> *"In fact, **the whole project thesis** right back in 2005, to 2008, when it started really comes to it **is policy driven**. It's about the policy, how do you make disease control sustainable, and essentially the only way to do it is to get farmers to understand they have to vaccinate. And to do that you have to increase the value of the animals so that they then understand, they have to actually invest some money in and understand how disease works, and invest some money in disease prevention, through improved productivity, and ultimately, even underneath all that is animal welfare. So there's no way we can introduce a policy on animal welfare. But we can introduce it step by step, after we improve the productivity*

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> *animals, improve the disease prevention, and hopefully get farmers to learn to pay for it, because there's just no international donor who will, who will throw the money at it for long enough with such porous borders."*

When asked about policy pull for the research the response was that

> *"OIE and SEACFMD has driven all the countries to participate in a collaborative approach to try and improve their animal health. So there's that external policy from OIE. And in fact OIE also drove the education policy. That's a policy of improving the veterinary services in each country. That led to our role in the National University of Lao and why I took a role with ADB to improve the curriculum ...."*

> *"I was there because of the International imperatives, the policy of trying to control Foot and Mouth Disease in the region".... And to do that we work at the smallholder farmer level, which is to get them to understand that improving the value of their animals, it also means that they now the improved value of the animals, and they need to protect that through disease control and vaccination and deworming. And those in those are things that have been have become embedded as, as policy now."*

> *"... not a formal policy, but there'd be recommendations that come out of the project that would then be implemented at the farm level, to achieve those improvements."*

The Final Report for AH/2012/067 (publication date unknown) noted:

> "As this study is one of the first FMD risk factors in Laos, it is likely to have an impact in directing biosecurity extension activities and transboundary animal disease control policy in the Mekong sub-region."

It was also reported that:

> "The project team has very close links with the World Organisation for Animal Health (OIE) and the SEACFMD program and are routinely invited to regional meetings/activities to present research findings on FMD from project activities, plus address OIE meetings of member countries on biosecurity initiates and FMD control. The team has published several research activities investigating the biological and financial impacts of FMD, along with an FMD outbreak risk factor survey."

> "The project has had a major influence at the regional international level, with OIE regularly promoting the benefits of the FMD research conducted in Laos on policy development, particularly with strategic vaccination and biosecurity strategies, more effective surveillance programs, and the role of goats in developing approaches to evidence-based zonal freedom."

No specific policy document or events were cited in the report, however we searched the OIE website and found reference to ACIAR's project in, for example, and OIE - PVS Evaluation Report of the Veterinary Services pf the Lao People's Democratic Republic (OIC 2011) and in a roadmap to prevent, control and eradicate foot and mouth disease (by 2020) in South-East Asia and China (OIE 2020) (the drafting and production of which was funded by the Australian Government through Australian Agency for International Development (AusAID).

A recommendation from the research was that

> "Ongoing agricultural extension work is important to ensure that key messages and skills implemented during the project are able to continue to build capacity for livestock development. **Transparency and cohesiveness between extension providers** (public, private, non-government organisations and donor bodies) **needs to be ensured so that research for development findings can be regularly integrated into programs and policy.** This includes a focus on social science and anthropological findings as it is important to understand the **social structure and needs of the community that the policy change** is being applied to."

Project AH/2012/068 found that:

> "This research is very likely to be useful to the GoL for **strategic planning and formulation of policy** for agricultural development through livestock. The key areas identified will enable focused resource allocation, ensuring that the livestock sector can continue to sustainably grow and contribute to food security and alleviation of rural poverty in Laos."

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It was reported that at the inception meeting:

"Research activities and planning strategies were discussed in detail, so that all data collected was of value to the project and end-users, the smallholder farmers, extension workers, **policy makers** and other stakeholders".

"A longitudinal survey was conducted to determine baseline production parameters and identify strategies for improvement, **plus provide policy recommendations** to improve smallholder large ruminant health and production."

"The **research activities conducted** in this project produced scientific impacts of importance to Laos and beyond that are very likely to continue to progress. In particular, improved understanding of marketing and biosecurity challenges for regional trading for cattle and buffalo, the baseline reproductive performance and diseases information, new strategies for improved nutrition and parasite control, plus a range of health, production and meat processing constraints, **enable policy developments by the GoL and livestock industry stakeholders** that focus allocation of resources for capacity-building more efficiently and will very likely produce socioeconomic impacts at levels from households to the national economy."

"This project has been very successful, both at the smallholder farmer level, and in **provision of policy advice to the GoL.**"

"Transparency and cohesiveness between extension providers (public, private, non-government organisations and donor bodies) needs to occur so that **research for development findings can be regularly integrated into programs and policy**. This includes a focus on social science and anthropological findings as it is important to understand the social structure and needs of the community that the **policy change is being applied to**".

The EoPRs for these two projects were not available for review.

While these two projects were ongoing the government of Laos was working to develop cattle development policy and NAFRI was tasked to undertake an assessment of cattle trade development in Lao PDR and the potential impacts of trade liberalization under the AFTA on cattle trade (Phounsy et al 2016). Livestock was also one of the issues raised by MAF in consultation with ACIAR in 2016, at which a policy brief was requested. While both AH/2012/067 and AH/2012/068 had NAFRI as a research partner there is no explicit reference to the ACIAR research in the NAFRI report, although some of the content and recommendations appear outwardly similar to a draft Beef and Biosecurity for Laos that was never finalised. An Australian team member commented:

"That's a brilliant example of, of policy and action at an international level. That was, has been documented…And that particular paper, we wrote about that has got a series of policy recommendations in the discussion of that. And those recommendations were also put into a policy document then shared with the DLF. And I did send it to the embassy in Laos. But the feedback was …. that they didn't understand it."

Another researcher explained:

"Yeah, that extends also, to how the projects were set up, because we had so such a good working relationship with DLF from the first project. So they were our preferred partner for the follow on projects. But we had to incorporate another organization. So NAFRI is written into the second project. And that wasn't based on necessarily the skill set that they're going to contribute to the project. It was based on directives from ACIAR to us to include them."

It was further explained that there is an "invisible hand" on how people are appointed:

"…our partnership with the Department of Livestock and Fisheries is a key component there. Having the Director General or Deputy Director General, as our in–country lead, you got a direct line with government and his, you know, higher level people that he has to report to."

"…then you know, internal politics. So because they weren't the lead, then engaging them to fulfill their obligations, was near impossible."

NAFRI was not included in the interviews for this set of projects.

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In an exploration of documents around the project it was difficult to find explicit relationships between research results and policy. But when asked whether there were examples from the research where the results were used by policy makers the team explained:

> *"I mentioned the issue of levels, you know, as it goes from the international level, such as the contribution of Laos to the SEACFMD program and a lot of the information we gained allows us shared with them says that, for example, our UAE recognized Laos as one of the leaders of, you know, apply applied research information on Foot Mouth Disease in the region, from everything from disease surveillance through to, you know, vaccination policies and things like that"*

The examples given by the project team of policy impact are mainly specific interventions (such as molasses blocks).

However, DLF explains:

> *"In the Livestock Department we are currently making a policy, a policy called "Export of Animals to China Policy". It will be* **stipulated in the policy** *that before you raise animals you must have strong biosecurity measures, right? And have a surveillance network, right? And have systems for disease control. The lessons from this project (ie the ACIAR project) were if you vaccinate to control foot–and–mouth disease as we did in our "demonstration" in our project, you can control foot and mouth disease."*

> *"They did not call it a policy. They call it a strategy. Our language says strategy for (the English) "policy". Not 'nanyubay; notice? It is strategy. A government strategy for raising livestock for trade"*

The Mekong Livestock Research[11] Website is a source of information on project activities and research since 2005. It contains numerous resources, publications and other outputs and makes specific reference to policy influence or the relationship between research and policy, for example:

From 2018

> "Members of the MLR team presented socioeconomic aspects of our work at several important conferences this year (2018), including the ISSEAH (International Society for the Social Sciences & Economics of Animal Health) Conference in Montpellier in France in May, & ISVEE15 (15th International Symposium of Veterinary Epidemiology & Economics) in Chiang Mai in Thailand in November….. In Montpellier we demonstrated that despite incomplete disease diagnostic information, socioeconomic studies could provide valuable information on the financial impact of disease & the benefit to costs of control programs to inform policy. ….We were pleased that our Lao PDR in-country leader Dr Syseng Khounsy was able to attend both of the above conferences as there was a focus at both on using research to inform policy"

From 2020

> "Enhancing livestock farming in developing countries is widely recognised as an important pathway in the amelioration of rural poverty. However, livestock diseases threaten the lives and livelihoods of the often marginalised people in rural communities that depend on their animals as 'cash banks', for manure as fertiliser and for food and often transport. Importantly, animal diseases pose significant risks to both farmers land the global human population, particularly when animal pathogens cross species barriers into humans; the most common source of new human epidemics. **To control animal diseases, policy makers often focus on achieving behavioural change by individual farmers, mostly by promoting knowledge-based interventions that encourage adoption of vaccination, biosecurity and parasite control. Sadly, often these programs simply fail.**"

3.4.3.2 Pigs

We did not interview researchers involved "pig" projects, but project documents were reviewed because there was cross-referencing to these in the other animal health project documentation; ACIAR project document templates specifically look for inter-project relationships.

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[11] https://mekonglivestock.wordpress.com/

Case Studies

Early ACIAR investments in projects to understand the diagnostic and epidemiological issues of classical swine fever (CSF) and foot and mouth diseases (FMD) in Lao PDR included project AS1/1994/038 which focussed on building the capacity of the Lao Department of Livestock and Fisheries (DLF) to carry out routine diagnosis and surveillance. The project was concluded in June 2003 after more than 6 years.

Project AH/2003/001 "Management of classical swine fever and foot-and-mouth disease at the village level in Lao PDR" followed, concentrating R&D on disease management at the village level. From January 2006 to August 2010 the 'Forage legumes for supplementing village pigs in Lao PDR' project (LPS/2004/046) investigated the use of forage legumes as a protein supplement to traditional pig diets. None of these early projects had any focus on policy impact but they did provide context to subsequent investments.

Project AH/2006/161 'Management of pig associated zoonosis in the Lao PDR', which ran from 2006 to 2010 included activities that were intended for policy influence or impact. One objective included "Social and economic impact assessment shared with stakeholders **which may be used to help formulate policy**" which an expectation that "WHO[12] will be able to **use the outcomes of this research to shape policy and development strategies** in collaboration with the Ministry of Health."

The Final Report, stated that

> "The **results of the JEV survey work in humans and pigs were used** by the WHO in deliberations to shape JEV [Japanese Encephalitis Virus] **vaccination policy in conjunction** with the MoH in Dec 2010."

The EoPR for this project was not available for review.

Two subsequent integrated projects: AH/2009/001 'Increased productivity and reduced risk in pig production and market chains. Component 1: animal and human health', and AH/2010/019 'Increased productivity and reduced risk in pig production and market chains. Component 2: animal production', ran from Sept 2010 to Aug 2014 with joint objectives to:

- Establish comprehensive baseline information on representative smallholder pig production-marketing chains in selected provinces.
- Improve pig productivity by increasing output per sow, piglet survival and growth performance through improved feeding and animal health interventions, together with managed environmental impacts and marketing strategies.
- Develop better strategies to manage the risk to farmers and traders in the marketing chain from diseases in pigs, especially classical swine fever.
- Develop and test strategies to better define and manage the risk from zoonotic disease at critical control points in the selected production-marketing systems.
- Link with other research and development projects by facilitating a multi-stakeholder alliance to scale out research results on pig production, pig health and associated human health risks.

AH/2009/001 aimed to enhance the capabilities of Lao PDR laboratories in the National Animal Centre within DLF and in the National Public Health Laboratory within MoH for the diagnosis of pig and zoonotic diseases and provide district **and provincial extension officers with a range of policy recommendations and intervention strategies** to reduce the prevalence of zoonoses.

AH/2010/019 included one-to-one, focal group approaches, participatory engagement and development exercises, farmer/village exchange demonstration events, seminars, workshops, mentoring exercises, management of networks, conferences, technical meetings, possible post-graduate training for some Lao staff, and publications at village, **policy, and scientific levels.**

In their combined Final Report it was claimed that

> "The project had several successes, **expected to result in valuable long term policy impacts** in both Lao PDR and the broader region" through the use of innovative research methods. 'good timing' and 'collateral benefits' for project partners and collaborators.

With respect to scientific impacts "Now and in 5 years" the project reported:

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[12] The World Health Organisation

Case Studies

> "Determining the **evidence base** of diseases circulating in the project target areas, triangulated with information about the farmers' production and trade practices, is anticipated to support **future policy planning in terms of SPS Agreement and various trade-related activities associated with Lao PDR's accession to the WTO**, along with helping assess current and future demand and motivators for farmer-led biosecurity measures such as Classical Swine Fever vaccination to improve livelihood gains and consumer safety."

'Key Findings and Recommendations' were provided to policy makers at a final briefing.

3.4.3.3 Poultry

In 2018 ACIAR invested in an SRA LS/2018/216, 'Incentives for early declaration and effective prevention of avian influenza in the Mekong' which ran from Feb 2019 to June 2020 and which was specifically designed with **a focus on "policies that promote protection against Highly Pathogenic Avian Influenza** (HPAI) in Vietnam, Cambodia and Lao PDR and generate lessons for the wider Asian region. **Candidate policies include** those that: (1) promote investment in preventative measures against poultry disease and (2) promote timely notification of disease. We are also interested **in investigating the responsiveness of stakeholders to policy change**." The stated purpose of the proposed research was:

> "to develop a model that can link 1) opportunities for incentive management, 2) behaviours of poultry farmers and 3) outcomes for human health. This model will allow the measurement of different factors related to each of these components.

A further contribution will be the opportunity to introduce policy makers to approaches and methods that can assist them in aligning policy objectives with stakeholder interests and incentives."

Project objectives were to:

1. gain **a better understanding of the policy opportunities and challenges** for human and animal disease promotion and surveillance in Vietnam, Laos and Cambodia
2. **establish the extent of existing knowledge around policy development process**es, socioeconomic factors and regulatory capacity of poultry production in Vietnam, Laos and Cambodia.
3. host a stakeholder workshop to share results and experiences with decision makers and identify questions for future research.

Research methods included policy situational analysis, institution analysis and literature review.

Rather than aiming to have policy impact the SRA was initiated to support the development of a full project proposal. The FPR reported that project "explored the role of both animal and human health systems in responding to zoonotic disease outbreaks and focussed on two areas: policies that promote i) timely notification of diseases and ii) early investment in preventative measures. It aimed to understand **the socio-economic context in which the policies operate, the policies that are in place and the regulatory capacities in place to support their implementation, and how they are implemented in practice, with a focus on the level of interaction between the human and animal health systems, at both national and sub-national levels**."

The FPR provided useful information on the working of policy making process and implementation in the heath sector.

3.4.3.4 Summary of Findings & Observations from Livestock Projects

The document review and interviews for the livestock projects revealed the following key insights:

- SRAs are useful to confirm policy elements of projects.
- Projects are important for improving knowledge as well as undertaking research.
- Projects can be designed with some very strong assumptions about the need for evidence for policy making and be intended to have some use in policy, but may produce little evidence of this actually happening, not because it didn't happen, but because collection of the evidence did not occur. Similarly, while results may be reported as communicated to policy makers there was no monitoring or subsequent reporting of the level of take-up.
- The examples given of policy impact were mainly specific interventions. This highlights differences in perceptions of what policy can be; the examples are of measures or interventions rather than text in policy documents – i.e not formal policy but in-practice change at the farm level

Case Studies

- The need to collaborate broadly with external stakeholders was emphasised. Again, however, the project reported that there had been collaborations but there was little documented evidence of this. Rather than indicating a lack of collaboration, this potentially highlights the challenges with demonstrating this occurred and its effectiveness.
- The need to be allowed to address issues as they arose is important and it was recognised that ACIAR project design allows to happen. Having a 'brains trust' is important in making this work
- The research highlighted the value of a stepwise approach to influencing policy and the importance of consortiums and collaborations
- Livestock was identified as a 2016 policy issue by MAF to ACIAR, but a policy brief was not ultimately produced. There seemed to be difficulties distilling the key scientific research messages into a prescribed format, indicating the need for more flexible approaches and, perhaps, more support or capacity building in techniques for science to policy communication.

3.4.4 Rice & Related Projects

Rice research has been another long-standing focus of ACIAR's investment in Laos. Two interviews were conducted with project team members from the National University of Laos & CIAT on 11th August 2021, and the University of Queensland & MAF on 17th August 2021

Project CSI/1995/100 on 'Plant breeding strategies for rainfed lowland rice in northeast Thailand and Laos' ran from July 1996 until March 2000. It commenced following a review of previous ACIAR work on rainfed lowland rice in Thailand and Laos (Project 9045 `Plant improvement of rainfed lowland rice in drought prone areas of Thailand and Laos'[13]) which had focussed on understanding the pattern of drought occurrence and drought resistance. Project CSI/1995/100 was a technical project with no policy impact design elements or expected outcomes. The FPR made **cursory mention of aligning a research activity to "the Government's policy on expansion of irrigated rice areas**." The EoPR made no reference to policy or policy impact.

Project CIM/1999/048 'Increased productivity of rice-based cropping systems in Lao PDR, Cambodia and Australia' (2001-2005) was developed based on recommendations of the EoPR for CSI/1995/100. The main goal of CIM/1999/048 was to increase the productivity of rice-based cropping systems in Lao PDR, Cambodia and Australia and, and as with its predecessor, it was primarily focussed on scientific and technical activities associated with plant breeding. However, it also included an activity aimed at "agro-ecological characterization to provide basic climatic, water balance and soils information that can be used **for determination of directions for future crop research and policy making**", with NAFRI - the Lao project partner, and "**policy making organization in Lao PDR' expected to be the research to policy**" conduit.

Additionally, the research was more explicitly **linked to unspecified Government policies** to "increase the irrigated area greatly within a few years".

The Final Report stated that:

"**The agro-climatic maps are being used to develop new policies for land use in Laos**. For example the maps identify potential areas for rice and other crop diversification, low temperature affected areas and thus how to avoid risk of crop establishment in certain months and marginal areas based on length of growing period for rice cultivation. These maps are used not only for rice-based systems in many parts of Laos, but also for the planning of other crop programs"

and

"Based on the result of the project and its recommendations, the number of meteorological centers for climatic data collections in Laos has been expanded."

The policies and planning processes in which the maps were being used were unspecified at the time and the EoPR noted that:

"Agroecological characterization in Laos has produced a system for spatial evaluation of cropping potential **that should be useful to policy makers and planners** as well as guiding future research, following evaluation currently underway."

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[13] Document on this project were not available.

Case Studies

The agro-climatic maps were located on the website of the Department of Agriculture and Land Management (DALAM) in the Ministry of Agriculture and Forestry.

Project CSE/2006/041 'Increased productivity of rice-based cropping systems in Lao PDR' aimed "to improve the productivity and profitability of the dominant lowland rice-based system, and to pursue diversification in suitable locations by adding non-rice crops under irrigation in the dry season." In terms of **anticipated policy impact**, it expanded on the mapping component of CIM/1999/048 by including an activity to map the recommended domains for the new technologies **and provide policy makers with information for cropping diversification in the lowland rice-based production environments**. However, it also included further detail of the types of information and **dissemination approach with policy advocacy** explicit in the proposal:

> "The information will consist of crop maps delineating likely zones and economic and risk assessment about the crops. The information will be provided as a "brief" for use by NAFRI in **policy discussions**. Based on the findings the information will also be used for advocacy to change **policy at the local level** and for information for the 'private' sector interested in feed markets. The project will, from its beginning, invite the private sector to workshops in order to ensure a close working relationship particularly in defining markets and in seed supplies."

The research to policy processes was highly dependent on the capacity of NAFRI, which was again **viewed as the policy making organisation** (or conduit).

The Final Project report **does not comment on whether the policy-targeted activities were affective**. However, it does note a 'capacity impact' in that:

> "Mr Vongpaphane Manivong was awarded a John Allwright Fellowship based on his involvement in this project and commenced his PhD studies at the University of Queensland in July 2010. Mr Manivong has been promoted to head of the Economic Policy Section of the Policy Research Centre in NAFRI and is making a major contribution to policy research and project development."

> Mr Manivong subsequently gained his Ph.D and in 2019 became a member of the MAF Department of Policy and Legal Affairs (DOPLA). He was subsequently interviewed in his role as a researcher and policy maker for this project.

The EoPR for CSE/2006/041 was very **explicit in linking the research to Lao policies for food production** and also stopping slash and burn activities associated with the cultivation of upland rice. The review acknowledged that the project had achieved the planned output to produce maps and a GIS of agroecological zone but commented that "serious trainings on how to use these maps are needed. In fact agrometeorology is still unknown and unapplied in Laos. This project output is very important as it create opportunity to move forward." The gained capacity of Mr Vongpaphane Manivong and Dr Thavone Inthavong as ACIAR supported scholars and their subsequent promotions in **policy making institutions** and **anticipated future contribution in policy research** was also commented on. However, no explicit impact on policies were noted.

In 2019 ACIAR commissioned an independent impact assessment[14] of the above 3 projects. **The assessment did not identify any direct attributable policy impacts.**

In 2009 a SRA, ASEM/2009/039 'Agricultural policies affecting rice-based farming systems in Bangladesh, Cambodia, and Lao PDR', was commissioned as part of ACIAR's then new Food Security Research Program. **That program included a strategy to pursue policy research relevant to production and trade**. **Five broad areas of policy research** were identified: (a) agricultural industry and trade policy, (b) policies for land and water resource management, (c) policies for making agricultural extension systems more effective, (d) research into marketing approaches for products from rice-based farming systems, and (e) building capacity in policy research. The SRA aimed to:

1. **review key national government policies and programs** affecting the development of rice-based farming systems in Bangladesh, Cambodia and Laos;
2. review evidence of current and likely future impacts of these policies and programs;

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[14] ACIAR seeks to ensure that the outputs of the research it funds are adopted by farmers, policymakers, quarantine officers and other beneficiaries. In order to monitor the effects of its projects, ACIAR commissions independent assessments of selected projects. This series of publications reports the results of these independent studies.

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3. identify any implications for the delivery of other projects in the Food Security Research Program; and
4. develop a proposal for a more detailed comparative policy research project for the region.

Three key outputs were:

1. Recommendations for improved delivery of the five technical projects in the ACIAR Food Security Research Program, based on **a better understanding of the policy environment in which they will operate.**
2. An ACIAR Technical Report synthesising the findings of the project.
3. A full research proposal (ASEM/2009/023) in accordance with ACIAR guidelines for project development.

This new broader program came after ACIAR's increased policy focus, described above.

Project ASEM/2009/023 '**Developing agricultural policies** for rice-based farming systems in Lao PDR and Cambodia' was subsequently developed and ran from June 2011 to June 2016. The project **aimed to contribute to improved agricultural policies for rice-based farming systems** in Laos and Cambodia, taking account of trends in Thailand and Vietnam, in line with ACIAR's food security initiative for the Mekong region. The project objectives were:

1. to **analyse current agricultural strategies, policy processes, and policy settings** in Laos and Cambodia in the context of regional social, economic and environmental trends;
2. to **demonstrate the benefits of evidence-based policy development in Laos** and Cambodia through feedback from selected case studies aligned with other ACIAR food security projects;
3. to **examine agricultural policy trends in other countries in the region,** especially Thailand and Vietnam, and the implications of cross-border trade and investment for policies in Laos and Cambodia;
4. to collaborate with agricultural policy agencies in Laos and Cambodia to identify improved policy options and strengthen policy development processes.

During our interviews the project leader commented:

> *"it was intended to be a comparative but also somewhat integrated look at policies affecting smallholder rice based farming systems across the region",*

> *"was meant to … synthesize those more technical [past] projects and turn out ACIAR based policy recommendations or, or something along those lines"*

> *"the push came from ACIAR, but there was interest within Laos to look at policy processes, particularly at the farm level."*

The project anticipated both immediate and longer-term benefits associated with:

1) an improved understanding of policy processes,
2) an appreciation of the ways in which **policy implementation** is conditioned by circumstances at the local level, enhancing the ability to interpret and address policy constraints,
3) detailed evaluation of current **policy impacts** on rice-based farming systems, providing important **feedback to policy-makers** and
4) an examination of specific, **evidence-based policy options** that have the potential to increase the uptake of innovations arising from ACIAR and other projects.

However, in terms of the processes of producing specific policy outputs it was noted by a researcher:

> *"I think it fell with more within the sort of ACIAR model of technical research being translated into recommendations and policies through some sort of magical process. So not only would you squeeze your technologies out of individual projects, then you could somehow turn them into policy recommendations as well"*

And their own reluctance to do that type of work was commented on.

The expected longer-term benefits of the project were to **strengthen the capacity** of government policy agencies, universities, research institutes, non-government organisations, and technical researchers in the region **to apply evidence from field studies to policy development and evaluation.**

Case Studies

The project adopted an **agrarian systems** approach to understand and evaluate agricultural policies and their impacts on rice-based farming systems and it recognised a need, not only to review stated policies at the national level, but to **examine how these policies are interpreted and implemented at the local or operational level**.

> *"they, they were trying to look at how, how policy played out at the local level, rather than necessarily influencing the, you know, the creation of new policies, because there's all these policies that that, you know, aren't implemented, not based on reality."*

In project implementation researchers were to be directly connected to policy makers through the formation of a **project advisory group**. But this did not work as intended and was discontinued after 1 year.

> *"I think our attempt sort of project advisory committee as a means of communicating outputs was a bit naive….. So it became much more a question of personal connections and networks and interest on both sides"*

> *"But apart from that, I think needs to be less made less serendipitous, and a little bit more systematic by plugging into existing structures, existing networks."*

The **project utilised several case studies** to characterise rice production and explore constraints to expansion.

The Final Report for the project stated that it had achieved impacts in all of these areas, that:

> "These outcomes have had some impact on policy making, particularly in Laos, where project personnel have had repeated opportunities to brief senior levels of government on specific issues regarding rice policy. A move away from policy based on centrally-determined yield and production targets for rice towards more of a focus on rural poverty and alternative livelihood pathways has been apparent in Laos, and the project has contributed to this discussion."

The report also noted:

> "Future work could focus on continuing to build the capacity of the policy research institutes within government to systematically and routinely collect and analyse policy-relevant data so as to have evidence to call on at short notice to meet the demands of policy makers."

Against "Scientific impacts now and in 5 years" it was reported that

> "The project has **provided a framework and a set of tools for analysing agricultural policies from the perspective of the farm-household** (i.e., examining 'policy in practice'). By documenting and understanding how farm households are influenced by policy settings relative to other aspects of their environment, and how decisions are made at the farm-household level, **this approach contributes to a more realistic assessment of agricultural policies**."

Limited impacts in policy capacity were noted. The report stated:

> "A longer-term strategy would be to provide support by (a) regular training and interaction in policy research and analysis and (b) building the capacity of policy research institutes to routinely collect, analyse, and communicate policy-relevant data."

However, the project did claim policy impacts related to "Community Impacts", noting:

> "It is not possible to attribute specific community impacts, now or in five years, to the outputs of the project. Indeed, **that would be to contradict the framework** outlined in Fig. 1. However, **the project has produced a wealth of evidence** about how farmers are influenced by government policy and programs, and how their livelihood options could be improved by certain policy changes. Thus, **if the capacity for this kind of 'policy in practice' approach continues to be supported and enhanced, there is a strong probability that rural households will benefit**."

Similarly, direct "Social Impacts" were not attributed to the project.

> "The social impacts of these policy-induced changes largely relate to the changing nature of rural households – again, a process that has many more influences and outcomes than can be attributed to any policy, let along the policy research in this project."

The project team commented:

Case Studies

> *"And I think, with our ACIAR research, to the extent that we were involved, or thinking about policy, **we were thinking about what these measures might be through situation analysis, analysis of options**, and so on. So either these options that are already being implemented or that are being canvassed. So in our case, we were we were very much grounded in looking at farming systems and where they were heading, and then how particular policies might affect on the one hand farmers access to water for irrigation through infrastructure and pricing policies and so on."*

> *"I think the kind of research that our group's been doing over the years has been much more about trying to understand how Lao farmers see and make decisions and weigh things up. And then to try and quantify that where possible, and put that into terms that might be useful at a higher level, but also feed that back to farmers"*

The EoPR for this project was not available for review.

3.4.4.1   Summary of Findings & Observations from Rice Projects
The review and interviews of the rice projects revealed the following:

- Justifying project activities on the basis of connections to Lao policies (e.g rice targets) is a means for legitimizing the research in the eyes of policy makers and other organisations. This is useful and necessary, as without it, resources and people may not be allocated to work on projects. However, the relevance of these connections if often not tested during projects.
- While projects may be aligned with or justified on the basis of national policies, expectations that projects will influence or change these are unrealistic. This is part because those policies don't necessarily reflect what is happening on the ground - the local reality - and this is often where projects happen. Systems approaches are helpful in understanding this.
- There are sometimes largely un-substantiated claims of policy impact in project reports. Checking of whether and how effective policy-oriented activities were is important for both project teams and reviewers. Building the means to do this into project design and monitoring evaluation is necessary.
- If ACIAR expects projects to demonstrate this impact, then projects need to be given the tools and capacity to track it. ACIAR may have expectations about this that are not apparent to project teams, especially where policy is not such an explicit objective. If required ACIAR should be more explicit in project proposal and reporting templates, and M&E approaches.
- There seems to be an expectation that the ACIAR model of technical research can be translated into recommendations and policies through 'some sort of magical process'.
- There need for specific and targeted approaches to research dissemination for policy impact, including and particularly at the local level. To achieve this early identification and confirmation through consultation of the relevant of the 'policy making' organisation/s and implementers is important
- Building capacity of researchers through study and project participation - alumni, helps them build confidence to move in and into research and policy spheres, but specific policy-oriented capacity building is not often built into projects.
- Long term projects develop an appreciation of the ways in which policy implementation is conditioned by circumstances at the local level, enhancing the ability to interpret and address policy constraints. Longer term projects seem to appreciate the nuances of the policy settings and way of 'getting to them'
- Decision support tools can be useful conduits of research information into policy.
- Document review is common way to explore policy settings.
- Project advisory groups don't always work. Network and personal connections may be more important.
- Projects needs to have evidence on hand for when issues arise, but also need to recognise they have something important to contribute to policy processes.

3.4.5   Groundwater
An interview with one Lao Researcher was undertaken on 12th August 2021. Other team members were not available or were unwilling to participate.

The project LWR/2010/081 "Enhancing the resilience and productivity of rainfed dominated systems in Lao PDR through sustainable groundwater use" commenced in 2012 and was completed in 2016. Its overarching goal was to contribute to improvements in food and nutritional security and the livelihoods of rural communities of Lao PDR to be achieved through the creation of an enabling

environment for enhanced agricultural use of economically accessible groundwater in Lao PDR for dry season and supplementary wet season irrigation by smallholder farmers." The FPP highlighted that the project should be viewed as a long-awaited and critical first phase of a potentially long-term initiative.

Anticipated impacts, included *inter alia*, that

> "**Evidence** gained from this applied research, when translated into **rural development strategies,** will be of great interest to donors/investors seeking to improve food security, nutrition and livelihoods" (FPP p7)

One of the justifications to the project was that "several **water related laws** implemented by different agencies are often conflicting" (FPP p9) and it was noted that the project "research dovetails with the rural development component of the Australia Laos Development Cooperation Strategy 2009-2015, which focuses on reducing poverty in rural regions of Lao PDR through equitable and sustainable improvements of food security and livelihoods (AusAID, 2010). **The research also reflects the core economic and social development goals of the Government of Lao PDR**" (FPP p12)

Research and development priorities related to groundwater development and management, identified in a forum organized by IGES (one of the project partners) included "**Lack of policies and legislation for groundwater supply in more than just the general sense**" (FPP p 13)

The FPP describes linkages with other project.

An ADB administered Capacity Development Technical Assistance (CDTA) project supported by the Governments of Australia and Spain, entitled "National Integrated Water Resources Management Support (NIWRSP)" (Project Number: 43114) recently commenced in Lao PDR. One of the four packages focuses specifically on groundwater, whereby an international specialist will help the Water Resources and Environment Administration (WREA) to more systematically manage groundwater for sustainable use. Many of the activities, which are highly relevant to this proposed research, are stated as:

> (i)   assess key public and private stakeholders and their groundwater information needs and uses and **assess institutional, policy, and standards settings**"

That ADB administered project was considered to have a degree of complementarity to the proposed research, seeking, for example, to develop a **National Groundwater Action Plan for Lao PDR**. The ACIAR project proposed to develop a **Groundwater Irrigation Strategy** and noted that that strategy "would make a direct and significant contribution to the National Plan." (FPP p13).

The project included six objectives with sub activities. Objective 4 focussed on Groundwater governance, review of existing agricultural strategies within the broader context of water-land-energy nexus.

- Activity 4.1 Undertake comprehensive **reviews of existing groundwater institutions and policies** (within and outside the water sector) and their relevance to a scenario of enhanced groundwater use.
- Activity 4.2 Conduct cross-sectoral, multi-level **institutional analysis** to identify existing barriers, gaps, and potential for (future) groundwater application in agriculture within the context of the water-land-energy nexus.
- Activity 4.3 Perform multi-country **review of groundwater management policies and strategies** that identify strategies relevant to Lao PDR to avoid over-exploitation problems

Detail of Objective 4 is as follows:

Objective 4: **Groundwater governance**, including a review of existing agricultural strategies within the broader context of water-land-energy nexus

Technical and socio-economic analysis on groundwater potential for agricultural development in earlier objectives **has to be linked with a comprehensive review on existing groundwater-related institutions and policies**, and their relevance under a scenario of increased agricultural groundwater use. Reasons and factors that lead to the lack of uptake of groundwater irrigation are analysed in Obj. 3. It follows that Obj. 4 will focus on the role of policy problem framing (Apthorpe, 1986; Dye, 1984) and the existing **institutional set up** as regards the overall positioning of groundwater

irrigation both as a means to achieve **national development targets** and as alternative water use strategy at the farming household level.

A detailed policy review will be conducted within the interface of the land-water-energy nexus, looking more specifically at agricultural, water, energy and other related policies and strategies in each of the country studied (e.g. Lao PDR Rural Electrification Programme supported by the World Bank) mainly **through secondary data collection and policy review workshops**. Different typologies of land use and different rationale in land use planning as well as existing rules and regulations on water/energy use will be identified and analysed in close relation with context specific information from the study sites. Apart from the technical and non-technical aspects, this context specific information will be derived mainly from how farmers and the farming community perceive groundwater irrigation in relation to their farming practices and existing agricultural policies. Similarly, a **multi-level institutional analysis will be undertaken involving different government agencies and other key actors. Systematic data collection includes secondary data analysis for policy review, institutional mapping, semi-structured interviews, key informant analysis and farmers interviews (using participatory methods such as focus group discussions, PRA, etc.).**

A second major component of the work examines **international/regional policy discourse on groundwater at a global level**, and in Asia in particular, so as to connect the situation in Lao PDR with the broader debate on groundwater as well as conjunctive use. The work will draw and link to other IWMI and IGES work focusing on the overall mapping of **national and regional decision-making landscapes** (eg. Suhardiman et al. 2011), as well as water-energy studies in South Asia (Mukherji, 2007). **Together with the policy review, this multi-level institutional analysis will provide sufficient foundation to improve the groundwater governance in the region, particularly in relation to agricultural groundwater use.**

Recognizing that small-scale groundwater irrigation is driven as much by private / non-government sectors as by governments and donors, the role of all stakeholder groups will be assessed, including individual and collective farmers groups, NGOs and other private sector groups will be assessed, and efforts made to engage with relevant sectors over the course of the project. The working group will include IGES, IWMI and DWR, and be led by IGES (Dr Yatsuka Kataoka).

There was one specific anticipated **policy-oriented impact** from the research:

> "Scientific impact: Science-based strategy for shallow groundwater use in Lao PDR that addresses policy, investment and management options"

With results disseminated "through published material such as peer reviewed journal articles, research reports and policy papers for decision makers within and beyond the various levels of government" and "The Regional Groundwater Knowledge Hub for the Asia-Pacific (http://www.iges.or.jp/en/news/topic/knowledgehub_gw.html) being coordinated by IGES will provide an important conduit for communicating project findings and **awareness raising and in influencing decision makers and the policy arena**."

Four research questions addressed policy tenets:

- What have been the barriers to development in Lao PDR and the key drivers for groundwater adoption in other regions that have intensified groundwater use? (objectives 3, 4)
- How can **policies outside the groundwater sector** (eg. energy and food policies) affect sustainable groundwater development? (objective 4)
- What are the key lessons for Lao PDR from related experiences in neighbouring countries? (objectives 3, 4, 6)
- How can the technical capacities, institutional arrangements and policies be improved to encourage sustainable groundwater use? (objectives 4, 6)

The capacity to undertake policy-oriented research and translate research to policy was largely situated within: The Institute for Global Environmental Strategies (IGES), a Japan based policy research institute, and to a lesser extent, the International Water Management Institute IMWI, based in Sri Lanka.

The Mid Term Review, undertaken in 2014, reported a **significant delay in activities related to policy and governance analysis**, particularly with respect to 4.1 "Undertake comprehensive reviews of existing groundwater institutions and policies (within and outside the water sector) and their

relevance to a scenario of enhanced groundwater use. But it did note that there had been "influence towards policy makers (input to laws and policies) and approaches by government departments."

The Final Report for the project noted that

"Groundwater development and usage in Lao PDR has been unregulated and the **weak institutions** in place have been unable to implement effective management. Experience in groundwater-based irrigation is almost non-existent in the country. Recent policy initiatives by the Government have bolstered water resources management planning, including consideration of opportunities for groundwater irrigation as an important area for development. With groundwater governance in its early stages, there is a need to build capacity to assess and manage groundwater resources effectively and advance the use of groundwater for agriculture without compromising the users of the groundwater or the resource." (p 6)

And

"**The project worked from the national scale down to the household scale**. At the national level, the potential for groundwater development was mapped, **policy analysis was conducted** and **capacity** enhanced through formal training courses and studies linked to the research activities (p6)

Contributing to the formulation of new national policies, including **the National Groundwater Action Plan**, was reported as a significant achievement of the project which was linked to the (then) new (8th) National Socio-Economic Development Plan for 2016-2020 and **related high level policies** (GoL, 2015). Contextually, and as part of the justification/framing for the project it was stated that:

"To date there has been no serious consideration of the role and potential for groundwater in the development of an irrigation development strategy most appropriate for smallholder farmers in the country, although **this has been discussed in public policy formulation for many years**." (p 10).

The Lao researcher we interviewed noted:

"I have some colleagues who work in the groundwater management divisions, and the water resource department, they tile the seek research evidence or figure or graph or statistic from the ACIAR project from this project as well. They need to they want to collect, and they would like to formulate a groundwater management policy."

"I am a technical person, I don't have much idea about policy making its the top, most of the policy making process that I involved just within the project level or community level that's involved with that. But for the year that the high level, National level, have never been involved with that."

In the final report integration was emphasised as a methodological approach "a means of value-adding and better serves the interests of informing policy makers" (p 13)

"Integration has been our goal wherever possible, and thus a feature of the majority of the project activities. The framework also indicates the thematic or disciplinary areas to which each activity contributes: namely (i) resource assessments & modelling; (ii) socio-economic and institutional; (iii) capacity building & training; (iv) communications (i.e. a derivation of the project objectives). **Integration provides a means of value-adding and better serves the interests of informing policy makers and other users of the knowledge and tools provided**." (p 13)

A multi-scale approach was also used.

As per the Project Document, summarised above, Objective 4 focussed on 'Groundwater governance, review of existing agricultural policy and strategies within the broader context of water-energy nexus, and various outputs were reported:

- 4.1 Synthesis report on the different rationales to either position groundwater as part of the country's national strategies in agricultural development or to merely focus on its role as farmers' additional means to get access to water.
- 4.2 **Documentation of key actors and institutions** in current and future groundwater development and proposed instruments and approaches for effective groundwater management.

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- 4.3 Assessment of the success or otherwise of alternative models of groundwater governance to feed into the Groundwater Irrigation Strategy.

The comments provided on these are relevant:

- 4.1 "A policy brief is being prepared synthesizing the findings. After knowing that groundwater was inadequately addressed in the existing policy documents, the scope of this work was scaled down and more **focus was given on identifying the policy entry points and on other activities** (4.2. and 4.3). MONRE, MEM and MAF were identified as **key ministries** to engage in the development and management of groundwater irrigation in future. A journal paper is being prepared by compiling inputs from 4.1, 4.2 and 4.3.
- 4.2 A **horizontal and vertical mapping of key institutions and actors** involved in water-land-energy was conducted. A two way information flow should be enhanced to strengthen the vertical linkage within a ministry. Similarly, across three sectors, an inclusive decision making needs to be promoted to maximise synergy and manage trade-off.
- **Policy brief** in 4.1 will incorporate lessons from international experiences that could be applied in the Lao context. Experiences from 4.1, 4.2 and 4.3 will complement preparation of the "Guideline for establishing community groundwater user group". A **country paper focussing on issues and ways forward for improving groundwater governance has been published.**

There was a significant volume of technical results presented in the Final Report, some of which pointed to policy implications, for example:

"the need to better recognise how farmers view groundwater in relation to their overall farming strategies, if groundwater resources are to be successfully used as a means to reduce poverty and offer tangible support to the Government's agricultural development strategies. Great details and insights on this case study can be found in Suhardiman et al., (2016; in prep)."

With 'spin off' findings that transcended the project objectives but were relevant to other **active 'hot' policy discourses/spaces/debates**, for example through a research activity exploring opportunities and constraints of agricultural groundwater use in two contrasting villages in the Vientiane Plain, it was observed that

"From a **policy perspective**, the hidden effects of land grabbing are critical to assessing the actual costs and benefits of land concessions, in Lao PDR (and elsewhere), especially in relation to current approaches to convert land into capital as a policy strategy to promote economic growth and reduce poverty. Great details on this case study can be found in Suhardiman et al., (2015)."

Identified as a relatively new issue, the project's work on governance focussed on three specific activities: i) review of institutions and policies; ii) understanding cross-sectoral linkages, and iii) drawing international lessons on groundwater governance. Exploring ways to create linkages where these did not exist explicitly for the purpose of groundwater governance was a focus, with options presented in a matrix for coordinating policy and actions relevant to groundwater at different levels of key ministries in Lao PDR (p 47).

However, it was reported during our interview that:

"I think there is a lack of interaction, a combination. conversation between researcher and policymaker, as well. Some policy maker in the high level, they don't know much, or they don't specialize. And really detail in the site in a technical too much."

The synthesis of the current state of groundwater management, undertaken for the first time in Laos, reportedly identified the range of problems faced as a means to promote more targeted efforts in this area. This was "**communicated to policy makers and this knowledge is being embedded in policies and plans such as the National Groundwater Action Plan and the Groundwater Management Plan for the upper Vientiane Plain.**" (p 60).

Learning from international experience was seen as important for the nascent Lao governance framework and system. It was noted that (p 49-51):

"Policy awareness and necessary legal and institutional development are essential, but even more important is to improve the capacity to act and implement policies and actions by existing ministries or their affiliate departments and agencies, in particular, GMD-DWR. In this project we

have identified the following modes of groundwater management, some of which should be avoided and others could be potentially adopted in parts or in whole (*inter alia*):

3) Legal and regulatory measures: In many countries, a set of groundwater laws and regulations are already present. Yet, they are among the hardest to implement and succeed due to multiple constraints such as lack of information about the hydrogeology, a large number of unregistered users, and poor capacity to monitor and take actions against non-compliances. There are a few successful cases of the effective implementation of groundwater laws and regulation. Thailand is one of such cases which has responded to worsening groundwater depletion and emergence of land subsidence by introducing laws and acts to regulate uncontrolled groundwater extraction in Bangkok. The role of the Department of Groundwater Resources has been instrumental in introducing and implementing these laws and acts successfully such as by introducing groundwater use fee equivalent to the tap water and re-locating industries outside of the Bangkok. Minqin County, Shiyang River Basin (SRB), China is another case of implementing regulatory measures. In 2007, the SRB Management Plan aimed to halve agricultural groundwater use by 2020. Among other, the plan introduced regulations (such as the closure of wells and a per capita water use restrictions) and WUAs were created to implement the regulation effectively. The main activities of the WUAs were to close wells based on common criteria such as existing well density, groundwater water quality, and salty areas, halting well usage through backfilling or by cutting the electricity connection to the well, and the use of smart cards to administer water permits.

The cases used in the projects provided useful insights such as in the case of Community groundwater management in Phousan village:

"It is then essential for policy-makers to bear in mind that both hydrogeologic and socio-economic conditions and context are highly important and location-specific. Therefore, top-down laws to enforce groundwater regulations or policies should recognise **the diversity of contexts.**"

Numerous capacity impacts were reported by the project. Of most relevance here are that:

"Team members from DWR and NRE have been invited to forums to speak on groundwater issues on behalf of the Government. This would have not been possible four years ago and is in large part attributed to this project" (p 63)

"Our findings from Phousan village show how farmers' groundwater use is partially driven by land tenure security. This has been presented during the Land Issues Working Group policy advocacy event in November 2015, and policy recommendation to revise the current article 17 on land privatization in the Constitution have been channelled by the British Embassy representative to National Assembly along the process of Constitution amendment. The Constitution amendment process is still pending."

The report lists many communications activities and the conclusions, with respect to groundwater policy (p 69):

"The socio-economic investigations at the two case study villages has revealed three major findings on how to promote agricultural groundwater use to improve farming households' livelihoods: (i) the promotion of agricultural groundwater use should be based on a firm understanding of how farmers perceive opportunities and constraints in relation with their farming systems and strategies: **(ii) positioning groundwater in national agricultural development policy should be with the primary aim to provide farmers with new sources of water to sustain livelihoods and increase households' income (through for instance crop diversification) rather than for increasing agricultural production alone; and (iii) any government policy promoting groundwater use should be formulated based on how farmers could use groundwater both for farming and domestic purposes on a sustainable basis**. This way, groundwater development can be designed and tailored matching resource availability and access with farmers' farming activities and strategies, without posing potential threats to existing water users.

Having carried out a **detailed review of institutions and policies** in consultation with relevant stakeholders, it is recommended that the Lao Government begins a process of engagement with the three key ministries (Natural Resources and Environment, Agriculture and Forestry, Energy and Mines) to coordinate the development of groundwater irrigation as a tool for addressing poverty reduction, food security, and climate change adaptation. Other sectors such as rural drinking water or industries dependent on groundwater should also be taken into consideration.

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The Ministry of Natural Resources and Environment is best positioned to act as a lead ministry to coordinate with all line ministries.

Ultimately, enhanced policy and institutional coordination should facilitate promotion of participatory groundwater irrigation on the ground. Potential facilitation may include: prioritised use of groundwater for boosting productivity and high value production, better marketing channels to maximise profit margin of the products produced using groundwater, groundwater to buffer risk against shortfall in rainfall and dry spells, secured supply of electricity for groundwater abstraction, and support on groundwater use and management techniques.

Recommendations included:

"**Groundwater institutions and policies are still in their infancy** in Lao PDR. Increasing interest on groundwater irrigation is an impetus for taking concrete actions in this regard. The establishment of the new Groundwater Management Division of the Department of Water Resources, and importance given to groundwater in recent legal and policy documents, are significant steps to systematise the task of groundwater management and ensure its sustainable utilisation.

"Finalising the Groundwater Management Plan (GWP) under development for the upper Vientiane Plain as one of the major tools to support planning and decision making in that area. This pilot GWP should serve as a basis for strengthening the institutional capacity to formulate and execute policies and laws. As active groundwater management is achieved in the pilot area, it could be scaled out to other areas where groundwater is also extensively relied upon (e.g. the lowlands of southern Laos).

The End of project Review for this project was not available.

Following the completion of LWR/2010/081, a small research activity "Exploring opportunities to expand groundwater use for livelihood enhancement and climate change adaptation in Laos" (WAC 2018 167) was commissioned in 2019. The proposal for the SRA noted that research under LWR/2010/081 found "substantial promise for groundwater development in Laos. However, the low baseline level understanding means further work is needed to better understand how groundwater irrigation can support agricultural development in drought-prone Southern Laos." (p5) The SRA aimed to examine the three most promising aquifer typologies in the lowlands of Southern Laos.

Justified on the basis of agricultural development strategies that recognize the lowlands of Southern Laos as a priority for expansion of livelihood enhancing actions, including diversified cropping, but perceptions of groundwater by government departments that are not always positive due to "**scarcity of data,** across the regions" resulting in "a poor understanding of the aquifer systems and the socioeconomic needs of local communities". The research therefore aimed to **develop a sound analysis of groundwater resource opportunities in irrigation to inform future irrigation and rural development policies** and programs and focus support in the agriculture and rural development sectors; contributing to the socioeconomic development of the lowlands of Laos. (p6). The SRA document makes some strong statement about policy:

"This research firmly recognizes and builds upon previous ACIAR research under LWR/2010/081 **where useful contributions to scientific knowledge, capacity and policy emerged.** Through close interaction with departments of the ministries of water and agriculture, **the project partners have demonstrated their commitment to the groundwater sector, and to taking up research findings to improve policies** and strategies. **A notable outcome of the previous research was the request to ACIAR, from the MAF Vice Minister, for preparation of a Policy Brief as an input towards the national irrigation strategy**. This SRA, being well-aligned with the development priorities of the Government, has a high likelihood of achieving positive impacts. A tangible indicator of a beneficial impact would include further recognition of the groundwater potential in Southern Laos by policy and decision makers.

Yet it also notes (p 7) that:

"Systematic progress in groundwater management has been lagging, particularly since the conclusion of ACIAR research. Research is much needed to stimulate and help inform groundwater management and to expand the knowledge and capacities of the agencies concerned."

Involvement of project partners with policy roles targets policy outcomes:

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> "DGM-DWR will help ensure the research is well-targeted and considered in formulation of new and/or updated groundwater policies. DGM-DWR are currently drafting national groundwater management regulations."

However, the objectives and research activities do not include specific policy-oriented research. Rather the approach utilises the collection of data and testing of technology undertaken together with partners to address perceptions about ground water.

3.4.5.1 Summary of Findings & Observations from Groundwater Projects
From the documents and interview associated with Groundwater projects we drew out the following key themes:

- Technical project people are not thought to be involved in policy making, which happens 'at the top'.
- Researchers have their own perceptions of what policy is, and their research is constrained by these.
- Policy analysis often reverts to formal documents- like laws. It is much easier to read and review these than try and explore and understand other forms of policy which may not be recognised as policy.
- Policy entry points can be found by aligning with 'hot topics' - e,g groundwater and food security are effective in penetrating policy spaces.
- Issues revealed by the research may be identified by others as policy-relevant and then taken up by them and used in other processes.
- There is a need for better emphasis on integration between project activities and produced information that better serves the interests of policy makers.
- Mutli-scale approaches are beneficial, including through horizontal and vertical mapping of key institutions and actors.
- Learning from international experience is helpful.
- Projects can elevate the profile of researchers who then gain opportunities (e.g. to speak in forums) they might not otherwise have had, to influence policy.

4   DISCUSSION

This section discusses insights gained through the case study research and interviews using the concepts and conceptual framework described in Smith et al (2022a) and summarised in Section 2 above.

4.1   What is Policy?

At the outset of this study, we intentionally did not hypothesise the nature of 'policy', with the intent of exploring this from the perspectives of case study documents, project team members and other stakeholders interviewed. In the project documents and outputs, we looked for definitions and discussion of 'policy' and in every interview we asked the question *what means 'policy' to you?*

Project documents, particularly project proposals, are often anchored to formal Government 'policy' documents and statements, such as Laos' National Social Economic Development Plans, Sectoral Strategies, Law and production targets, as the justification for the research, to demonstrate relevance or as the target of change, indicating a perceived policy issue. This is apparent even in the case of primarily technical projects, and it is not surprising given that ACIAR project templates seek alignment with partner country development issues and priorities, which are often articulated in and implemented through these 'policy' documents. For example, the EoPR for FST/2005/100 noted that@

> "the successes of the project arose because it was well aligned with the Lao Government's Industry Assessment Program (under the Ministry of Industry and Commerce) and that there was "a similar opportunity …. to align a new ACIAR project to another highly relevant Lao government policy, being the [then] newly released National Export Strategy for the period 2011 – 2015 (NES)" and also the Forestry Strategy 2020."

The importance of connecting projects to formal government policies was also explained by ACIAR and DFAT personnel we interviewed in terms of its centrality to the Australian Government's foreign policy objectives, including basing interventions on evidence (DFAT 2020a) and the role of 'soft power' and improving Australia's influence via the ability to influence the behaviour or thinking of others through the power of ideas. It was noted that:

> *"ACIAR in its field of sphere of influence, is in a pretty safe place in terms of trying to trying to improve policy"*

The legitimacy that 'policy anchors' give projects in the eyes of the Lao Government, and the subsequent authority this then gives researchers to participate in projects, was also evident. We were told that:

> *"In the Lao context, often you need the policy because that's how the bureaucracy and the party actually functions".*

This was reiterated to by Lao researchers for whom that connection to government policy was seen as an important enabler of their research and its results.

No project planning documents reviewed (such as FPPs), even those specifically aimed at policy research or policy impact, pre-emptively defined or discussed the concept of policy; and while research objectives may have aimed to explore, for example 'policy options' and 'policy barriers', project outputs revealed little in-depth consideration of the scope of what the term 'policy' could and does mean. This suggests pre-conceived but unarticulated ideas of what policy is, and perhaps an assumed common understanding within project teams and between teams and the RPM. There is consequently a risk of divergence in expectations in project design, implementation, evaluation and determining impact. We propose that as a concept, policy needs to be explored at the outset by project teams and with RPMs to avoid design flaws, disappointment and possible unintended consequences.

Indeed, the responses given to us in interviews revealed that the question *what means 'policy' to you?* is not easy to answer. We were told by Lao researchers:

> *"....so in Laos the policy is a principle you know, it's the rules or action as adopted by the institution, the Lao institution or organization"*

> *"Policy to me is something that gives you direction to what we would like to get for the country, would like to achieve in the future and also to support; when we talking about something changing it needs support"*

> *"....policies are what the government wants, what their goals are. And then at a second level,....the measures that are put in place to get there"*

> *"To me the policy is higher than the strategy? What we understand is the policy is something you want to address. But how do addresses it is the strategy"*

When answering the question, Lao team members often talked of physical documents like laws (*got may mee*) and legislation under laws, such as regulations (*nitikam*). As it was described to us, technical or specialist departments (*khom wisakaan*) take the Law issued by the government, and then they (*phan kanyay*) expand them into regulations (*nitikam*) under those Laws. For example, one Lao technical officer noted:

> *"But what we can do is take the Mother Law ('got may mee') and make regulations ('nitikam') under the law.... the departments that are most concerned, such as a technical department ('khom wisakarn'), these are the people responsible for explaining the specialist or technical aspects. And the policy-makers are the ones who release the policies." '*

There was also recognition that policies are not uniform, in that as governments change, policies change:

> *"Not every government has the same policy....And one thing is very good, with every new government we a have party direction, they call on the is 'marti khumsum', it is some sort of Decree, some sort of resolution. Because every sector needs to move forward to that direction"*

Australian team members also talked of policy as being about legislation and strategies but more often emphasised 'practice change' and the role of people as decision makers. We heard:

> *"But I think you know, often policy and law are difficult to separate for some people. So you know, that they see something that's the rules coming from the top."*

> *"Well, policy is a formal set of rules and strategy documents and the suite of different kinds of regulatory arrangements. ..... there's a formal kind of component to that. But there's also an informal component as to understanding some of the internal sort of political dimensions to this. What are the factors that are driving the government to implement these sorts of policy measures? What are ...some of their underlying objectives in trying to achieve some of these goals? So it's a bit about trying to be aware of what some of the things are going on behind the scenes, as well as what's in the documents that are in the public domain?"*

> *"Policy to me is kind of like the enabling environment, which is a mix of both kind of starting from a high level strategies been enabling legislation and other related in policy instruments. So it's not only legislation, but you know, right down to things like, you know, operational guidelines for how you do various things. And then, you know, the funding programs that go behind all that."*

One ACIAR RPM noted the importance of the "ideological framing of the policymaker" and that policy can sound like "*a simplistic and logical thing, but it's quite embedded in position and power and, ideology*". Another noted:

> *"for me policy, it's a series of actions that's framed and up-taken, by groups of people to achieve a desired effect....policy is as much about governance as it is about government".*

Questioning about notions of policy typically lead to consideration of the differentiation between high level, or as described to us 'big P', policies – which might be titled as policies (e.g. "The Land Policy") and goals or targets, and their interpretation into 'small p' policies, and what actually happens on the ground. One Australian researcher observed:

> *"At that national level, it's a very hard connection to make between national policies that are written in a book, and then how they're implemented or enforced or incentivize that at a local level, to actually results change and change in farmer practices. And....and often we stopped at the outcome level, that we've changed the policy. But how often does that policy then actually change the farmer practices or the way agribusiness organizes or encourages or get rid of constraints for investment? And that's the challenge because I don't think more policies is necessary or better policy in terms of writing is necessarily going to help alleviate, you know, the issues that we care about."*

Several Australian researchers emphasised the importance of their research influencing what happens locally, recognising local rules and practices as forms of policy, but also noting the need for upwards policy connections:

> *"So really, our kind of field–based research, you could say was a kind of situation analysis, looking at things from the farmers point of view, and analysis and synthesis to look at all different policy options"*

> *"So in current projects, we, we did a lot of consultation and meetings at the district level, and you make kind of progress there. But then if you don't have central level kind of endorsement and support, then you may make no progress. And then if you work at the central level, you might have no impact on what's happening at ground."*

Quite early in our interviews, it became apparent that use of the term 'policy' is itself problematic in the Lao context. In Lao, there are a number of words that could mean something similar to the English 'policy' but there is no exact match. Respondents explained that it can have different meanings and applications depending on the context. The Lao term *'nanyobay',* for example, is used for 'policy' and is often taken to be very high level, above those expressed by strategies, programs and projects. However, one Lao researcher explained that the term '*nanyobay'* can also mean:

> *"to have this term for 'policy' people will come asking for something, like can you support me in terms of to get more…. you know, like higher pension or the private sector they want to get reduced tax, so when, when we dealing with at the local level, it may be better to avoid the, the term policy nanyobai"*

'*Nanyobay*' thus has a second meaning: to help or support, especially in terms of an exemption or special treatment. In this sense, 'policy' is not the formal rules or goals, but the ways the rules are softened or adjusted to help someone in specific circumstances. *Nanyobay* can be both the high-level policy (e.g. the 70% forest cover target) and the incentives or measures introduced to make policy happen. In the case of plantations, for example, there are '*nanyobay'* (tax and fee exemptions) to encourage people to plant trees, and it might be these lower types of policies that projects might ultimately influence. Care should be taken in the actual word and meaning used when discussion policy, particularly at the local level.

4.2   What are policy processes?

Getting research into policy processes was a goal of several case study projects, both technical and policy oriented, and our review of reports and outputs indicates that longer-term investments involving continuation of projects and project team members are more likely to find ways into these processes. Generally, however, developing an understanding of those policy processes was not included as a defined project research activity. The exceptions were the more recent projects looking at policy in the Forestry and Fisheries program areas, and these investments were made on the back of many years of technical research in which efforts to understand and penetrate policy spaces and processes had been somewhat *ad hoc* with primarily unplanned success. These unplanned successes were one reason this SRA was developed.

Policy change and policy reform are both explicit and implied in project proposals, with activities described as being about identifying and finding options to address 'policy and regulatory constraints' or building capacity in policy actions. One project EoPR noted:

> *"Effective policy reform and resource knowledge would have the greatest long–term impact across all elements of the value chain and there is some momentum in this direction."*

However, the degree and nature of 'policy reform' or 'policy change' is rarely investigated and consideration of the nature of the policy problem as well as the processes through which change can and does occur, as well as how ACIAR projects and their people can and should participate is warranted, as part of project research activities. Taxonomies of policy change, such as that of Howlett and Chasore (2009) and the theories of Stachowaik (2013) and Cerna (2013) are useful in guiding this, but consideration of the contexts on which changes are made is necessary, particularly the 'normal' timeframes in which policy change occurs; expectations of affecting change within a 5-year planning cycle or mid-way through a 10 years strategy may be unrealistic compared with timing inputs to coincide with review phases. Based on our review of the case studies, we found the following examples illustrating models of policy change:

Table 2: Examples of 'policy' change to which ACIAR project contributed

Example	Mode of change	Speed of change	Policy content	Policy Focus	ACIAR project approaches	Enabling settings	Policy Theory/s
Promoting plantations in PFAs	Paradigmatic	Slow, then sudden	Change to high level abstraction - lifting of ban on plantation concessions	Change in norms - acceptance of plantations following review	Project workshops & presentations; reference committee, via private sector	Networks with a common message	"Policy Learning" "Coalition Theory"
Change to wood product export rules (PMO15)	Incremental	Fast	Specific on the ground measures: Change settings for exporting plantation wood	Mechanisms: Change in rules for plantation grown wood product export	Direct (face to face and written) briefing to Departmental staff in DoF and MOIC	Project length building personal relations	"Messaging and Frameworks" "Power Elites Theory":
Change to domestic wood transport rules	Incremental	Slow, then sudden	Specific on the ground measures: updated instructions to implementing (local-level) agencies	Calibrations: adjusting rules and instructing locals on correct enforcement	Repeated approaches -reports, policy briefs, presentations	Having information available at the right time	"Policy Windows"

One of the challenges for research projects is framing questions around a premise that a policy is not working, and that reform or a change is needed, with an assumption that the project's research could help propose interventions to address these issues. This could be construed as criticism both of formal government policy and agencies' capacity to implement it; such an analysis may not be welcome if it is not already self-acknowledged. However, it seems unlikely that there would be an appetite from within ACIAR or Lao partners to fund an investment into research to confirm a policy is working; although this could be quite valuable from the perspective of policy-research. Through connections established by team members of this SRA, and via relationships established by them with researchers and policy makers in Laos, we were able to gain approval to undertake an ethnography of the process of the development of the Forestry Strategy 2035 as a proxy policy, this is described in a separate report. That opportunity, together with case study and supplementary interviews with researchers involved in that processes, provided us with a rich information through which to explore policy processes under 'normal settings'.

Questioning about how policies are made and by whom (i.e. policy process) revealed a common perception that both formal and informal processes are at play.

A Lao researcher, describing the formulation of the new Lao Forestry Strategy, commented:

> *"So it's a formal process, it has to be discussed with different related organization, for example, the forest policy, not just only MAF involved, but also the Ministry of Commerce, Ministry of Planning and so many complex actor in the process"*

Another observed:

> *"… there are some very strict processes in order to make the policy document for example, First the Minister of MAF will nominate the committee member from different departments of the MAF and also there's stakeholder like from NUoL. So,in this group the be will be studied, will we have the meeting, regular meeting with this this member and then we try and define, find scientific research results on the report in order to draft the these policies and this decrease in order to endorse by that the minister. So after we draft this policy document and then be endorsed by the Minister. As I mentioned before, in the past, there are not not good connection between the operations of line administration, and our levels, and also the university. But recently they are good collaboration, as we can see from the MAF, from the MAF agreement, or from the policy projects, we get more involvement from the different parts of Laos in the policy process." (SP)*

From interview responses, project documents and other sources, we constructed the following short description of a formal policy process.

The Constitution defines the Lao political regime. The Party formulates and revises the major lines and policies on national development; the National Congress of the Lao People's Revolutionary Party is the party's highest decision-making body. The Central Party Committee, comprising 81 members and chaired by the General Secretary of the Party, meets 10 or 11 times per 5-year term and resolutions are released after each meeting. These resolutions (*mati kong phasum),* which might be called, using the language of one interviewee, 'big P policies', are formulated by people who could be considered 'political elite', 'opinion leaders' and 'policy-makers'. They are handed to Ministries, as 'policy implementers' or 'practitioners', to adopt and enhance (*pan kanyai*). Ministries are then responsible for writing vision documents, strategies, plans, laws and to use these to inform their departmental strategies (*nyutasart*), orders, plans, laws (*got mai*) and sub-laws, and measures (*mati–kharn*). All are formal 'policies' in a sense.

Ministerial policies are expected to conform (*sort khong*) with the Party direction (*naew thang nanyobay khong phak*). Usually, Ministerial polices (sub-policies, or 'small 'p' policies) only require the approval of the Prime Minister's Cabinet. Where they involve more than one ministry they will be mediated by the National Assembly; an example is the National Socio-economic Development Plan.

Informants commented on the policy role of the National Assembly as the highest legislative body (laws are passed here) and as a forum for representatives to question and review government policies, and as a place where popular concerns can be raised (such as through the NA hotline). The National Assembly members are closely related to their respective **Provincial Peoples' Assemblies** and **Provincial Governors**. They are expected to be conduits, delivering Provincial perspectives to the National forum and likewise informing Provincial leaders about the National context. Sectoral Departments, such as Forestry, Agriculture & Livestock or Fisheries, develop 'long term' strategies, often with consultation, and annual plans. The fact that policies are developed locally was highlighted as a possible focus for ACIAR research projects. For example, each province and district make a socio-economic development plan in a top-down-bottom up process that is described in procedural documents made by the Ministry of Planning and Investment.

Within Ministries and departments 'small p policies' are made through formalised processes; the making of a law will follow the precures set out in the Law on Making Legislation which describes, for example, the formation of a secretariat, drafting committees, provincial and technical consultation and public comment. Similarly, in the making sectoral strategies or reforming implementing regulations, plans will be made, which may, or may not be public, depending on their nature. Policies are handed down to local implementers and practitioners through instructions, these officers in provincial, district and village organisations interpret and apply policies in their local context - in effect the 'street level bureaucrats'.

ACIAR projects are often framed in the context of national sectoral plans because these are accessible, are often translated into English, and they link with 'big P policies' leading to high-level

support. Local plans, while less accessible, may actually be more relevant for aligning research activities to and achieving impact; locally, government officers 'make policy' when they apply the rules in their own situations.

ACIAR projects are likely to partner with research organisations which sit within Ministries and involve Ministry employees who maybe technical officers in sectoral agencies, or researchers. These people are often but not always members of the Party; some sit on party committees and are responsible for providing continuity between Party directions and Ministerial or departmental implementation. They can be important connectors and 'boundary riders' between research and policy makers, communicating technical information into policy processes and bringing policy priorities to researchers.

From the perspective of Australian researchers there are challenges with the formal processes, which can be viewed as opaque, hidden, secret and impenetrable; but participation is possible. As two Australian researchers commented to us:

> *"I think that there is a strong, big p policy…. orientation of the Lao government. And that's very opaque to me, as a non–legal person. And the machinations within the party and National Assembly, and all those sorts of things are certainly outside of my scope of understanding. But I think within the parameters, you know, set by that big p policy, set of processes, which are obviously fundamental, at the level of people with whom were interacting, that is the senior bureaucrats or advisors to senior ministers. I think Australian Researcher if they believe we have something to offer, they've been pretty receptive to hearing us." (Australian Researcher)*

> *"So it was hard to get government to engage in the steering committee…… it was hard to keep that going. And it wasn't always as useful as, for example, informal conversations with someone at the end of a project workshop."*

While there formal processes and places for 'making policy' decisions about policy change can happen anywhere, and the informal dimensions of policy making were consistently recognised as important for ACIAR projects. One researcher noted: "

> *"I think that sort of informal dimension is very important…..policy, it's a process as well as the product."*

These informal relations which develop over time within the project and between the projects and others, build trust, which is a key ingredient in for penetrating policy spaces. This was an observation of Australian and Lao researchers, and of policy makers. Even within this project team the building of the inter-personal relationships was important in establishing confidence about researching what can be viewed as a 'delicate' issue - that of making policy. One of our research team commented "*Het wiak karn mueang kon*" (do the work of politics first), emphasising the notion that in Laos it is important to build relationships first, then start the work. Whereas Australian researchers commented in Australia the assumption is often that the work will build the relationships, and while this does occur, setting to intentionally establish personal connections with policy makers, although not outwardly 'research' may be the best way to ultimately achieve some impact.

Within these policy processes, it is clear that different people play different roles, and taking time to understand these and the position of research and researchers in them is important. The role of people in policy and research is discussed further below.

4.3   What is research?

Our case study analysis did not reveal any conscious exploration of what 'research' is, embedded within the research projects we examined, and even within ACIAR's own corporate documents that guide programs and projects, there is no specific definition of research. The language used in ACIAR's corporate documents points primarily to funding/brokering/collaborating/partnering in 'science', but also to investing in and building technical capability and policy capacity. Documents are well populated with terminology common in the evidence-based-policy space such as 'data analysis', 'informing policy', 'generating knowledge', 'sharing lessons' and 'base our interventions on evidence', but in practice it is principally the projects that ACIAR funds that are expected to deliver on these goals.

We asked interviewees *how do you describe/think of 'research?* and through their responses we found that as with 'policy' the term 'research' or *'khuon kua vi chai'* in Lao, has several meanings. Examples elicited during interviews included:

A. Academic research, for example a university researcher joins an ACIAR project to conduct experiments into tree growth.

   "research is the process of asking a question and answering it"

B. Information gathering: A ministry officer is asked to collate information to inform a strategy. They will look for information from a range of sources, rather than do primary research. For example, recently more than 10 people from the **private sector** were appointed to become Prime Minister's assistants.

   "The appointments were made so that this group of people can provide constructive ideas to the Prime Minister and explain the technical principles for each area and issue. The Prime Minister assigns them topics to research on. After they research and present to the Prime Minister and Deputy Prime Ministers, then the government will develop a policy" (Prime Minister Phankham Viphavanh in a speech to the National Assembly in 2021)

C. Review: a senior policy maker asks his team to review work they have done and make it better (a soft order).

   "Inspection measures......make sure you look into this again" (hai khon kua bung). (Lao Policy maker in a speech to ministerial staff)

Understanding what is meant by research and who is responsible for doing it, in its various forms, can be confusing for Australian researchers and Lao team members, and like 'policy', the term should be understood in the context in which it is used. English versions of Departmental mandates, for example, often use the word 'research' when they mean 'information collation' or 'review'. Expectations about roles and capacity to undertake research should be discussed early in project design.

4.4   Where does research happen?

Other literature describes formal research and 'research for policy' structures (e.g Clarke et al 2015), and structures and functions are set out in Ministerial and departmental mandates, for example:

- The National Research Institute structure "*Sataban Khon Kua Haeng Xat*" was devised to provide necessary evidence and data for policy development.
- A National Science and Technology Committee was established in 2002 as a technical institution, belonging to the Prime Minister's Office. Its main mandate is to provide advice on social and natural research activities, and to consider and certify results of research carried out in the country.
- Every Ministry has a S**cience and Technology Committee** and line ministries host their own research institutes, such as the National Agricultural and Forestry Research Institute (NAFRI), the National Economic Research Institute (NERI) the National Institute of Public Health (NIOPH) or the Economic Research Institute for Trade (ERIT).
- Some research institutes also have specific "policy oriented" functions (another word) such as the NAFRI Policy Think Tank, and one officer told us:

   "the research work is still given to NAFRI.... but the "wiak phan khanay" (deriving policy from it) is done in the Department"

- The universities, sit alongside the Government institutes and fall under the Ministry of Education and Sports and the Ministry of Public Health. They are seen as institutions of higher education and provide for Lao-led research. Regional universities are emerging as increasingly important local research providers. In 2021 it was determined that the National University of Laos would be one of three organisations participating in a pilot program for self-financing.
- The Government of Lao also recently dissolved the Ministry of Science and Technology because, as it was explained to us by a Lao researcher:

"they didn't see the linkage between academic research and the national policy. Science management institutes need to come to the Ministry of Education. The government has allocated 1% of GDP for the research and the money will be allocated to the university to do the research, based on the government interest…., to feed the development of policy"

Research can be policy-oriented or purely academic. A senior NUoL academic observed:

"Research following policy directions set by the Party–State is one thing, and research outside that is the second. The research that is outside the plan set by the Party–State, we must do that separately, do it sincerely, and when it is finished, you the results can still be received in the policy–making. The research in the government plan is separate. Sometimes they use university researchers, sometimes they would use others to do it. This is important."

Research is funded by many donor organisations such as ACIAR, who may partner with universities, research institutes or with line ministries. Provincial and district offices may participate in research activities and provide a direct connection between research and policy in practice. For example: ACIAR project VALTIP3 partnered with the Luang Prabang Teak Project in the Provincial Office of Agriculture and Forestry to undertake research into plantation registration and teak value chains. PAFO officer undertook primary research and acted as a conduit to other provincial stakeholders. They provided a good 'reality check' for research in practice and local voice to policy recommendations.

The particular importance of the participation and role of the private sector in undertaking research and partnering in donor funded projects was identified as important in two ACIAR projects. It was observed that they can identify key issues and 'hot topics', provide field sites, perform trials and provide connections to line agencies and policy makers. One Australian researcher commented:

"The minister actually requested the meeting…. and I was wondering why, so the Company made a few inquiries, and they come back and said, it seems the Minister is just genuinely interested in the project and wants to know if fish are swimming up the fish ladders."

They also benefit from being involved in research projects including by increasing their knowledge-base and capacity to comment on policy from an informed position.

"…they (companies) were much better equipped to have a conversation about the right sort of policy arrangements with the industry than they had been previously."

4.5   How are research priorities determined?

As it was described to us, ACIAR and the Lao Government, principally through dialogue with MAF and MoES, discuss and agree on ACIAR's future investment priorities. However, issues can arise *ad hoc*, identified by project teams or Lao researchers, which can then become ACIAR projects.

An ACIAR RPM reflecting on formal processes noted that:

"ACIARs approach is that we're invited to do this research… the assumption is a theory of change … they [policy makers] want this information"

and also commented that this assumption might not be valid and that

"people might invite you to do this research for a whole lot of reasons other than they want a policy informed approach".

When talking more broadly about how research priorities emerge in Laos, our interviews garnered several perspectives.

Many Lao respondents focussed on the formal processes and structures and requests made for research on specific issues by policy-makers.

An officer from, within NAFRI, for example, noted that

"Mainly research is based on the funding agency objective or goal, rather than from the Government, but we also try to adapt the project goal or project objective or milestone to

> *fit to the Government policy and strategy. If we try to adjust, maybe not 100%, it can fit to the policy or with the strategy, but at least we have to fit into somehow."*

> *"…right now our concerns are mostly about hand–to–mouth (i.e. concerned with basic needs ('luang pak luang thong'). With regard to research work, they may not be receptive to it. Those (projects that) talk about extension, they are prioritised, above other lines (sen), of enquiry)."*

Several Lao interviewees talked of 'hot issues' and how these drive requests for research to be done. Hot topics "*paden hon*" are urgent issues that policy makers seek to address quickly and in the short term. They come to their attention through various processes and research may be requested to find solutions. It was noted that issues become 'hot topics' when the people use their voices, when they give feedback *'hang sieng pasasom'*. This is the direction of popular opinion. Listening to issues is 'how the party stays close to the people'. Some ways in which issues are raised include:

- National Assembly Hotline.
- National and Provincial Assembly members.
- Local officials trying to implement policy
- Villages (nai ban) can write a 'letter of proposal' (bai saner) or 'raise a concern' (bai kham hong) to a district official to raise a concern.
- On social media (e.g. FaceBook, videos) and other media.
- Via researchers or other intermediaries (on behalf of someone who has identified an issue but it is less confrontational for someone else to raise it)

Doing research on 'hot topics' can be challenging because policymakers want quick solutions. Researchers expressed caution about sharing early results. One Lao researcher explained:

> *"our research project is about three, four years, sometime five years. But the policy makers they cannot wait, the result, sometimes is too long. And then when we present the result, it's, it's already done, you know, with the policy."*

Hot topics can arise unexpectedly, and it is difficult to meet policy-makers' demands:

> *"...the government asking... it should be the national hot topic that you need to do research (on).....we have only six months to get the answer to feed into policy. Oh no we cannot do that"*

ACIAR projects are usually planned and implemented before 'hot topics' arise. It is difficult to align research with Hot topics from the start, but research results can inform hot topics and can be adjusted when they arise. As an example, in 2016 the Prime Minister announced a ban on the export of all unprocessed wood, including from plantations. After two years the GoL was considering whether to ease the restrictions but wanted to know what the impact had been on teak smallholders. Project researchers were able provide results in a briefing to the Director-General of Forestry, and the ban was eased. The research had not been aimed specifically at this policy but had produced evidence that was relevant.

Local authorities are important in keeping researchers informed about 'hot topics'.

> *"The idea of the project came from doing other work, the work team had the opportunity to go to the Pak Pung area, and we heard villagers talking about this. Those who go down to the village level, they can exchange back and forth ('long pheurn than', "down to the local level") and you understand the situation."*

Doing research in Laos require getting permission ("a red stamp") from local authorities. This is often seen as an administrative burden by researchers, but it can be an opportunity to inform them about the project and seek their advice on 'hot issues'.

It was also noted that people are more likely to receive funding for 'applied research' than 'pure research:

> *"… we are more interested in applied research, we are more likely to receive funding, if you can convince them that your research will be used for developing this and that, contribution to the government policy"*

4.6   Perceptions and use of data, information, knowledge and evidence

The 'Data-Information-Knowledge-Wisdom hierarchy' of Ackoff (1988) is useful for exploring ways in which data, information, knowledge and evidence are created, perceived and used in policy processes in Laos. Drawing on Ackoff's work, and that of others, the following continuum can be constructed:

Research produces **data** which through analysis becomes **information** that is transformed through social contextualisation and learning into **knowledge** that can be selected and used as **evidence** to support or refute a specific question or position.

Such a linear and unidirectional definition is of course overly simplistic; not all data is created through research; information can come from many sources; people learn and acquire knowledge in different ways; and not all data, information and knowledge become evidence. What 'evidence' is sought out and selected and ultimately used in policy making is very much framed within the perspective of the of individual and their socio-political setting. When asked about evidence and evidence-based policy, one Australia researcher told us:

> "….the idea of evidence–based policy is really coming more from a western science perspective, of objective truth, if you like, that there is there is a kind of right way of doing things that's informed by evidence. And there is some element of that in policymaking in Vietnam, as well with a Confucian sort of philosophy of public service and service to the society. But I think in Laos the way government works is different than that. It's much more relational. And the way society works generally is much more relational. And so the notion of sort of an objective truth that you're working towards is less, less important…"

An ACIAR RPM also commented:

> "in the years I've been in, in house reviews and looking at the project proposals, it's becoming much more overt in the proposals that we are going to influence policy and policy makers, our end users, and we're going to do research that's going to change their minds about how they should be making decisions."

Scientific facts and information, no matter how valid and reliable they are, are not likely to be politically utilised if the interests of powerful political actors, policy makers, run counter to them. There is no automatic mechanism that forces politicians to apply scientific expertise. One ACIAR RPM commented:

> "We need to pursue evidence–based policy, but I think we also have to understand what the current drivers are for and needs and pressures of, of policymakers and have a much more nuanced understanding of identifying opportunities to influence policy, other than evidence that's around, you know, power and economics."

Researchers we spoke to, described a disconnect between politicians, research and the data and information that is produced.

> "The politicians do not understand research, researchers do not understand politicians. So, the power is with the politicians. These politicians are important. They like to see the real situation and talk about the real situation, of this or that, but truly they don't understand research but those who do "research" well cannot be politicians. That is really important. It is impactful."

And the ways that evidence reaches policy making and attitude to research were also diverse:

> "in this project I think one key point is important is in order to change the mindset of the policymaker is not just that we produce the research papers, or some do some presentation to them, but we interact with them, for example, not we have the excursion, which is very important that we can understand the policymaker, what are thinking? We have a lot of informal party drinking, eating in house with them… this, this is the main factor that contributed to the success of the projects …"

> "I'm thinking about attitude of, you know, policymakers to research evidence. I think I've been, you know, it's generally pretty receptive to evidence that addresses a particular question…… I think those kind of national level goals are very important in framing how research is done, but also how to use and how it might be viewed as useful or not."

> *"I think the government has increasingly recognized the variance of research."*

> *'Reality checking' at the local level was seen as important for contextualising research, creating information and to provide room for learning. Both Lao and Australian emphasised the value of taking policy makers into the field to see research activities and to talk to local people, as targets for research interventions.*

Talking to local people about policy also were viewed as more difficult spaces to penetrate, particularly for foreign researchers:

> *"In doing research, you know, we, we went and had conversations and interviews down to the district level, you know, …. But I never really felt like we were getting a really grounded response in those interviews…. to really understand the nuances of policy at the local level, I think needs a depth of research that, you know, we weren't able to do in our, in our project, just by the, you know, limitations of time and budget.."*

What people say and do is important, but so are facts and numbers. The type of evidence that is generally considered critical for policy development and practice is credible, scientific evidence, generated through research. However, evidence can take a variety of forms, such as experiences, history, attitudes, analogies, insight and judgments, and 'research' is only one way of revealing evidence about a problem. Scholarly research is not the only – or perhaps even the primary – source of evidence available to policy-makers. 'Evidence-based' policy, or even 'evidence-aware' policy, will draw on broader sources.

> *"For example….many people are worried that food is not safe. It has residual chemicals or whatnot. But it's only a claim, there is no evidence or no one researching on it. If there is research that detected a certain percentage of formalin found in shrimp imported from so and so, which are found to be over the safety level by how much, for instance. This will be strong evidence to support a claim."*

The effectiveness of 'evidence' for policy change was also thought to be inhibited by the strength of institutions to translate and embrace it for 'the common good'.

Policy facts, and political facts are not the same thing. The connection between the work of academics and the work of policymakers in Laos is seen as problematic, as if they are members of different communities who speak different languages. In providing research-produced knowledge and evidence to policy making processes researchers may strive to remain a-political rather than aspire to penetrate the spaces in which policy making occurs. This affects knowledge creation, transfer and availability. While researchers want to be certain their findings are proven scientifically, policymakers look for anything that seems reasonable, and is available when they are looking for it. However, research merely presents alternative courses of action, but does not necessarily tell policy makers what to do. They still have to make a decision. This can be frustrating for researchers when that decision runs counter to the facts presented.

Who presents the evidence matters. It is not always clear whose knowledge is valued, and whose evidence counts. There is a difference between locally generated evidence – research done in the local context in Laos, by Lao and foreign researchers and locally generated knowledge – understanding by Lao policy makers of the evidence through transfer by researchers. In some cases, evidence presented by Lao researcher to Lao policy is more likely to be trusted. However, we also heard the opposite - that when presented by foreign researchers, evidence has more credibility.

There is certainly a perceived divide between research and policy in Laos that resonates with the 'two communities' hypothesis (c.f. Caplan in Edwards 2004). However, while there maybe two communities, as Boswell and Smith (2016) and others describe, there are several modes of interaction between research and policy and possible 'problems' associated with them. We present some examples of these problems as stated to us in interviews in Table 3, and explore other examples and modes of interaction below.

Resonating with the 'autonomous spheres; mode of interaction, one Lao research commented:

> *"The point is that the linkage between the research and policy is not that close. At the national level, they have their research institutes. So that means that they will have their*

> *own funding, and they have the topics, and they do research and they get the research results to develop a policy, which is not really connected with the academic research…".*

But Australian researchers saw things differently:

> *"I'm not sure there were uniform views on either side. But certainly that that technical views and articulating did align pretty much with the senior Lao scientists, who are right there in the policy as policy influences, if not policymakers. It was a question of how you could overcome technical obstacles to achieve predetermined goals. And that's where I think scientists felt they may have something to contribute"*

Australian researcher experiences about interacting with 'policy makers (e.g. a Minister), highlighted the challenges of being asked to transcend their own perceived boundaries of research to policy-making.

> *"So I'm just going to turn up as a scientist and present my objective, non–opinionated…so here's where we're at. And here's what the data is telling us, and see where we go from there. But DFAT are really interested in it, because they, they obviously want to influence the Ministry of Energy and mines and the minister so. So it's actually been quite stressful getting ready for their meeting, just because everyone's cracking the whip at me. So I don't I don't know where it'll go. But definitely having the scientific evidence that shows that the solution worked is probably of interest to most, but it's very much of interest to XPCL. Because that gives them currency to develop their next project, which is Luang Prabang, which they've got".*

But it was also observed that people do transcend both communities. Lao researchers may be members of the Party and this connects them with policy-makers or to party policy more strongly than might be the case for others. While this can be beneficial for ensuring research projects are aware of policy contexts, it can also create challenges for projects.

> *"it struck me as an outsider, like, you're very much like a parallel system, including parallel systems of research or policy advice. But of course, affecting the same people who have who have two hats, you know, there might be a senior researcher, but also in a party member. And I can think of instances where the senior researcher might be, like, too busy to attend our project meeting because they had to quickly prepare a document for a group organized within the party, perhaps drawing on similar data or similar issues. And so there is this kind of dual system, dual track system, and I'm not sure how it works out in practice. But it is something that is perhaps unique to countries like, like Lao. And it's kind of invisible to project. I see eye to eye projects."*

Some Australian researchers indicated uncertainty about whether it is appropriate to discuss Party policy or Party membership with project team members. When asked about this, however, Lao colleagues expressed little concern.

The institutional relationships for research and policy making were described to us by one Lao researcher. He identified the National University, the Ministry of Science and Technology, Ministry of Education and NAFRI within MAF as key, noting in particular that MAF depends mainly on NAFRI for research to inform their policies and strategies, but that academics from NUoL may be invited to participate, and that there are agreements about that relationship and formal approval processes that need to occur before research is accepted.

> *"For our research and study, before you release the results in their final form ('hup patham naam patham'), you check ('pharn') the results, you introduce them first to your own department, then you send to the higher level. But, in the NUoL, we need to have cooperation. We have MOUs with various relevant ministries and various technical specialisations under them".*

> *"After we have various results ('phon ngarn laak laay') from our work, we offer these to them, and the work you have done leads them to trust you, then they will disseminate your work in the Ministry. If it has merit ('khwam di kham sorp'), it will be raised in the meetings of each department. That way your research (dissemination) can include ('pakorb') policy makers."*

Australian researchers reflected that there might be more than one way to achieve the same thing (providing research to policy) and that the university and ministry partners might do this differently: a ministry employee may be able to provide information to directly influence a policy or policy-makers, whereas at NUoL this could be by training and educating the next generation of decision makers.

An RPM noted that setting up a communication structure, embedding staff within the relevant government agency or creating a project governance committee could be a way to regularly take projects learnings to policymakers in a way that suits their needs. She noted:

> *"Results are often not presented or time packaged, targeted to the policymakers needs. .... to better understand where the opportunities are... what the policy landscape is, what pressures government people are under to deliver".*

We also heard that you need to have the right project design and people on the project team to be able to this:

> *"project design, about integrating the right people together, and that speaks to the sort of person that we need, as project leaders. I'd really like a course ...where we develop a cohort of project leaders that have that ability to work interdisciplinary, but also across the social, political, landscape"*

One RPM commented that a decision on what evidence is needed for policy is very much framed within the perspective of the of the policymaker, or the researcher that's producing that evidence and this needs to be taken into account, but about which it can be hard to develop an understanding.

The issue of trust and confidence of policy makers in research and researchers was raised by NUoL researchers, when responding to a question about the *attitude do policy makers have about using research evidence.* People and sources other than research are important for policy makers and the example of a new committee set up by the Prime Minister was given:

> *"The leadership group still don't have enough confidence in ground level researchers, so, the Prime Minister has gathered many scientists to be his advisors ('thi beuksaa'). Business... various things.... later will be scientists, and other disciplines ... as advisors. This is a clear (indication) that our researchers will continue to advance, and the trust will continue to grow in the future."*

When asked about ways to build that confidence of leaders in research results a NUoL researcher commented that

> *"Validation (of research results) is not a one–off event. When you finish your research, you don't just put it in the library, or your PhD thesis, you must release it for the community ('sum son') to see ('pacaktaa') particularly these days, outstanding research is applied research, not specific research. Research for science '(witinyasart') does not yield anything (? 'phon kamlay'). When the results finally come, you have spent a lot of time and money, the government does not really like this. What they like is, these days, after research, you have your results, and you show them around: it can be appreciated by people, appreciated by the level above, appreciated by government officers or researchers in relevant research areas, then you will get good results. Take for example, this is a simple example, past research in our university, those projects that are known to have generated results, it is because they are well–placed (u bon thii): they cooperated with Ministries or other parties, to generate results that can be applied. They went to see the real situation ('hen tua cing') to get true results. And they asked the people, and they recognized it was really good. That is really important. To do this only once, and then go around saying that you have done this and that so how good are you? But then you do not do it again. You absolutely can't do that. That is like, superficial."*

Table 3: Research-Policy Problems

Policy Problem	Example
"clock": a tension between long-term academic research and the short-term needs of policymakers	*"...the government asking... it should be the national hot topic that you need to do*

	research (on).....we have only six months to get the answer to feed into policy. Oh no we cannot do that
"priority shift" researchers sometimes address problems of yesterday, which is especially a problem when governments change;	*"our research project is about three, four years, sometime five years. But the policy makers they cannot wait, the result, sometimes is too long. And then when we present the result, it's, it's already done, you know, with the policy."*
"cultural differences" policymakers are mainly interested in action and researchers tend to be more reflective"	*"...right now our concerns are mostly about hand–to–mouth (i.e. concerned with basic needs ('luang pak luang thong'). With regard to research work, they may not be receptive to it"*
"co-option" researchers may feel the pressure to show that a policy works rather than expose problems with it	*"And the question that was always put to us ....So don't tell us why there are constraints, including economic constraints, tell us how to achieve these targets? Because that's what the policy is."*
"collusion" trying to find out 'what works' could lead researchers to worry about their role in 'naming and shaming of places and people', or a desire for being independent of policy making;	*"So I'm just going to turn up as a scientist and present my objective, non–opinionated...so here's where we're at. And here's what the data is telling us, and see where we go from there"*
"communication" do academics get the right evidence in the right way to the right people at the right time in the right places	*"We do research and we get results, and these are sent up to the level above, and it will be included in building policies ('nanubay') and building procedures ('lak karn), regulations ('nitikam') and building procedures and building laws."*
"Trust" researchers need to have credibility and merit and research needs to be validated	*"Regarding our research, sometimes the results are not clear. Perhaps we have not taken enough time with it, the results are not yet validated, so they don't trust it. They won't accept it."* *"We have to take the results and ('saneer') suggest it according to the steps for their consideration.*
"Procedures" there are set procedures that need to be followed if research information is to get to policy makers	*"..presently our duty is to do research and analysis and if we have any information we would like them [policy makers] to use in improving various strategies, regulations and laws then we can write it up formally and send it to them.... Then, after that, it is taken into ... to pass by ... the steps that are taken... to find the Minister or others, to make the suggestion."*
"Transfer"	*"the large government consider of the you know, the listen to the foreign researchers, ...they would like to hear from other countries researchers, to say, trust (them) more than Lao researchers"*

This resonates with the need to find ways to transform results and data into information and knowledge.

Responding to 'hot topics' can be difficult for researchers:

> *"So what I said before kind of feeding in ingredients, ideas or analyses that would inform policymaking particularly with regard to, what are in conventional old school policy analysis, we distinguish between like policy goals or targets, and policy instruments. The policy options that we're looking at are more likely to be things that might work to achieve an agreed policy target. So there was no question that improving smallholder livelihoods was a policy target. And no one was looking to question that. But the research was in the form of situation analysis, and identifying and assessing policy options, as well as achieve larger policy goals. And we weren't there putting it all together in terms of like a policy document or strategy. We're feeding that in through personal connections, through policy briefs, through workshops, and so on, and hope for the best if you like"*

As often long-term research projects it can be challenging to satisfy all participants and stakeholders with their time frames. Researchers may want to complete experiments and publish papers before providing it to policy makers, which wan take a long time. They can be nervous about making recommendations without all the data and analysis. This can require persistence and trial and error. We heard similar stories from different project teams.

Australian researchers told us:

> "The materials needed to come at the right time and be in the right form, and relevant to the decisions that were under question. We didn't really nail that with this project; it's better to get something in early even though it's not fully evidence based"

> "I think there was material floating around if you like, ingredients that could be incorporated in revised policy.... it still depends critically on the attitude of the minister of the time."

> "I used to be asked to produce evidence to support the policy, rather than to produce evidence to develop the policy. And I think that's, that's very common in, in Laos, and Vietnam."

From Lao researchers we heard:

> "Timing is very important for the policy makers".

> "our result cannot be influence 100% of the policy, maybe only some of them will be considered in the policy changing, I think that we should not expect, you know, that much that the result of our research will be fully taking taken by the government or the policymakers."

> "...we have to go and see the right person, the right group of people to ask them that, what really they want, or, you know, they want to know, as information from the research, it will help maybe in influencing the policy."

The style and mode of presentation of research to policy makers was raised as an issue. It was proposed that Australian's (foreigners) often get straight to the point whereas Lao may spend a lot of time talking about broad issues such as the history or definitions of a concept, which can take a long time and seem of little direct relevance (to foreigners). One project team commented on the frustration that they felt in project meetings where issues were talked around, and discussion was seemingly of little relevance to the question at hand.

> [evidence can be used] in "disruptive or policy opportunity, that you could take advantage of a time and a place and in a political environment, that that's ripe for change".

> "We have to have some sort of surveillance of when the opportunity is and be ready to engage"

It was observed by interviewees that the Forestry project VALTIP2 started making written recommendations to change plantation regulations in 2014, and ACIAR produced a policy brief in 2016, but it took until 2017 for a change to actually happen. That VALTIP2 research had influenced this policy change might not have been known if ACIAR had not continued to invest in the sector in Laos, and so maintained the researchers' connections with the policy process. A Lao researcher commented:

> "The Vice Minister went to a meeting in Luang Prabang and he saw this and understood the problem deeply. So, this had impact, right? After that, he directed that there be a meeting to "review" Decree 96" ...they obtained many insights from the results of ..the studies of the project, right? They took it to introduce and explain it to the various Forestry Department team members, so they really understood it."

Often what is more important is how things are done, not what is written down. Sometimes impacting policy at a high level doesn't change how things are done; more impact is achieved at a local level.

> "..you can influence policy but have no impact...they were trying to look at how, how policy played out at the local level, rather than necessarily influencing the creation of new policies, because there's all these policies that that aren't implemented, not based on reality.....It's a very hard connection to make between national policies that are written in a book, and then how they're implemented or enforced or incentivize that at a local level, to actually results change and change farmer practices."

Impact looks different to everyone. Below are some examples as expressed to us during interviews:

- by a Policy maker:

"the former vice minister said, you know, it's so difficult to change policies, it will take years and years. But what we can actually do is make sure that this research impacts on the way we do things...he did not say, don't do it, don't aim for the policy, but he was just saying, you know, aim to make the necessary changes in the way people work and the way people do their job"

- by an Australian Diplomat:

"the holy grail of development as we all know it is that kind of then scaling up of that and driving systematic change and, and getting partner governments or industry or communities to actually pick up that research and run with it"

- by ACIAR staff:

"We hear from, from government partners, of the impact of your work in the way they're discussing and the way they're doing things"

"there is now a generation of... previous researchers who've gone up to policy decision positions"

"While we're just talking about policy, it's not the end in itself....with the Lao context, often you need the policy because that's how, how the bureaucracy and the party actually functions"

- by project leaders

""We want practice change. ...And that might be through legislation that might be through capacity building, that might be through good governance structures that might be through collaboration that might be through proof of concept, there might be through all of that a combination of all of that."

With different understanding and perception of what impact is, comes challenges with designing projects to achieve it, and evaluating when it does (or does not) occur and why. Achieving impact on policy and practice requires careful project planning, budget, timing and some luck. Policy research and policy communication require specialist skills that need to be factored in to project design and budget. The approaches may be subject specific, but thinking about the policy tools needed in advance could help projects take advantage of opportunities when they arise. Resources need to be allocated to allow for project leaders and others to spend time in the places where policy is formulated. Reflecting on project design an ACIAR RPM commented:

".....it can be difficult for the right people, the team leader and some others to spend enough time to engage with people they need to engage with in the capital"

Partners were considered particularly important in taking research to policy. ACIAR projects often focus on research institutions as partners, but others such as technical ministries and the private sector maybe strategically better to help establish and build policy momentum even if they do directly participate in the research. One project team noted:

"It took 7 years to realise the most important policy stakeholders were not involved in the project"

It is important to set priorities jointly with policy making institutions. When priorities are set together, research is more relevant and is more likely to be used.

"Before you think about research, you have to think about "what are the targets of our government of our Ministry" to make them answer the question ('torp coot' i.e. on topic) or answer to the policy ('torp nanubay') and then you have to find the important issues."

"I want to suggest that before the university decides on research topics, the researchers like us should read up on the directions of the government to learn about the issues that the government want to address, then make them research topics"

Doing research takes time, getting policy impact takes longer and aligning these to optimise impact can be challenging. Impact might not happen straight away, and often not within the project timeframe, and this in turn makes attribution difficult. Project planning may not coincide with policy cycles or implementation, but opportunities may arise to feed into these processes. Long-life projects are more able to establish relationships and trust, not only with policy makers but with other organisation that might look for research results to support their programs which influence policy, practice and scaling out results. An Australian researcher reflected:

> "And there's, there's certain periods where you have, you have the potential to influence policy and outside those windows, you can bang your head at the wall with the greatest evidence in the world, and then make a little progress. So it's understanding that that process is, is important. And, and I think, you know, I've been advocating for a long time about the importance of people staying for long term in the country and working with, with people here, rather than people flying in for a week"

> "it's not entirely impossible that you can't influence a particular piece of policy work. If you have just a policy focus project that happens to be able and occurs at the right time, where a country is, you know, got a process for changing a significant bit of its policy. So, you know, I don't think there is a one size fits all. But, you know, given the style of work that ACIAR does, I see that a lot of the work it does, should influence policy over time. And when you get the policy settings, roughly right, they're right at a point in time, but as things develop, that need can change."

Even if the timing is right, to get policy impact, someone may need to be where policy is made. An RPM noted:

> "In any project where you want to try to influence policy outcomes in that broad sense …, you do you need to ensure that the team has the ability/incentive, whatever the right word is, to spend enough time generally in the capital to engage with those people…..The team leader and some others to, you know, spend enough time to engage with people they need to engage with in the capital…. and that some of that comes down to individuals. And not enough time is built into the project design to make sure that was effective."

An inference here is that policy making happens "in the capital", but this is an inference challenged by some researchers and by some notions of what policy is. This is discussed further below.

Who the right person is for taking research to policy makers or engaging with these policy people was questioned. Some proposed that this should be the project leader as the most senior person in the project structure, but others observed they might not necessarily be the right person in terms of the skill set or personality needed to communicate or interact with policy makers. We were told:

> "not all at our project leaders make good people to influence policy…..there's some very good researchers, some of whom make enormous contributions, but not all of them will be good at influencing policy sides"

> "he was trying to argue with these people at a level where the conversations were just like passing ships. ….and the whole thing got derailed….he was trying to actually help people understand …. but he really didn't have the conceptual skills, at least in the Lao context, to engage the policymakers at that point in time."

> "at the end of the day, you can't turn every researcher into an effective policy influencer"

> "I think if you haven't, you haven't got allow a person to understand the process and the power dynamics, and what's really happening below the surface, then you might have a nice document, but no impact. And I think, again, that's something that I think if you if you're just flying in and out, or if you're just a very technical person, and you don't understand the political economy of Laos and how things happen, then then it's really difficult to make change, you have these great results, but what do you do with it?"

4.7   People in Policy

As we set out in our conceptual framework, we have placed people at centre of policy, not just in terms policy making and doing research. Below are some the other people that were revealed as important in this process by projects, project team members and others.

4.7.1   Leaders and Project coordinators

ACIAR project leaders are typically from Australian universities or research organisations and specialists in a relevant field. This does not necessarily make them the right or the best person to establish relations with or interact in policy-oriented processes. As described above, excellent scientists can be terrible at translating research data and information, into evidence for policy making, and at communicating with policy makers. A number of characteristics and issues were flagged, some of which resonate with the 'relations' we describe above:

- Researchers often have a desire to remain independent of 'politics', which can be equated with policy making
- Lack of confidence in interacting with policy makers or skills in policy communication
- Lack of familiarity with, or fear of, policy processes, which are often seen as hidden or difficult to penetrate
- Lack of relations with policy people, which as we have observed above, take time to build and effort to sustain
- Discomfort with the often more formal and sometime 'performative' nature of policy and political events and meetings, and the different language used.
- Personal preference
- Unwillingness to spend dedicated time in the places where policy making happens, or is perceived to happen such as in the city, preferring to allocate limited project time to working in the field or laboratory

The role of the in-country project leader or coordinator was noted as important for connecting research projects to policy makers. An Australian project leader noted:

> *"If I was asked for advice, how to be successful with an ACIAR project in a particular country, I would say, it is very important to have good country coordinator. And in our case, [she] is very well recognized, highly respected by government and, and obviously, relationship is very important.*

4.7.2   Alumni

The role of 'the alumni' was noted by several projects and interviewees from ACIAR. This group primarily includes Lao ACIAR project team members who, through various means, have gained an opportunity to study in Australia via their connection to a project. One ACIAR staff member told us:

> *"The Alumni are very important in navigating policy processes. They have this body of knowledge and experiences that they would like to utilize and one of the needs that was identified is for ACIAR to support them in understanding policy, the policy space, and what kind of capacities they need to develop so that they can make that bridge between the research and translate it to policies and decisions."*

Several people we interviewed were alumnus and, while some had remained in academia others had moved into positions in technical ministries, some in senior and policy-oriented positions. These people commented on the value of their studies but also the challenges of moving from research to policy and needing specific policy-oriented skills.

Australian researchers noted the value of providing opportunities for team members to study abroad with this resulting in stronger personal connections, a better and shared understanding of cultural differences between countries particularly, but not only, related to doing research, and the building of capacity generally.

Challenges were observed associated with expectations that Lao researchers, whether alumnus or not, would be able and willing to play a bridging role between projects and policy making (where such a goal was desired), with both Lao and Australian interviewees commenting that it is not reasonable to inherently expect this. Not all Lao researchers have the desire, capacity, confidence or relations to do this work and if it is part of a project's goal to influence policy then something specific

needs to be built in to achieve that. However, it was also noted that connections between Lao alumnus are important in creating these relations as they move between positions and organisations and these can be useful 'hooks' into policy spaces for projects.

4.7.3   Reference or advisory committees

Several project we reviewed had set up a committee structure as a mechanism to engage and connect with policy makers, with varying degrees of effectiveness. Those that worked were established early in the project, where very strategic in selecting members, found innovative ways to establish relations and keep members engaged, met regularly, provided a space for 'frank and honest' discussion, and were responsive to members' comments and requests for information.

An RPM noted that setting up a communication structure, embedding staff within the relevant government agency or creating a project governance committee could be a way to regularly take projects learnings to policymakers in a way that suits their needs. She noted:

> *"Results are often not presented or time packaged, targeted to the policymakers needs. …. to better understand where the opportunities are… what the policy landscape is, what pressures government people are under to deliver".*

The less successful committees experienced issues with retaining members with junior staff often sent as proxies, suffered from personality issues and were not adequately resourced.

One project leader observed:

> *"So it was hard to get government to engage in the steering committee…… it was hard to keep that going. And it wasn't always as useful as, for example, informal conversations with someone at the end of a project workshop."*

Another commented:

> *"I think our sort of project advisory committee as a means of communicating outputs was a bit naive….. so it became much more a question of personal connections and networks and interest on both sides"*

4.7.4   Informal networks

As one of our team members observed, in Laos "*Het wiak karn mueang kon*" (do the work of politics first), emphasising the notion that in Laos it is important to build relationships first, then start the work. The importance of making personal connections, establishing relationships and creating and working through informal networks was a common comment made to us during interviews. For example, one Australian researcher commented:

> *"….by the end of a four year project…. you really tend to find one or two people that you can easily and freely share information with and have much more open discussions about "we've got these results, what do you think is the best way to bring them into … the Department"*

However, it was also acknowledged that relations take time, effort and resources, and for time and resource constrained project this can be difficult. Australian researchers acknowledged that because they often fly into Laos for short periods and have pre-determined goals for what will be achieved, the more 'social elements' are of lower priority. The importance to Lao team members of 'getting out into the field', spending time in less formal settings, having a beer or singing some karaoke with colleagues or local people after work, as well as importance of financial per diems associated with field work is often under-recognised or -prioritised.

A Lao researcher observed:

> *"I think one key point is important is in order to change the mindset of the policymaker is not just we produce the research papers, or do some presentation to them, but we but interact with them, for example, we have the excursion, which is very important that we can understand the policymaker, what are [they?] thinking? We have a lot of informal party drinking after or eating in house with them. This is the main factor that contributed to the success of the projects"*

The same researcher commented that it was on field trips that bureaucrats and senior policy makers felt that they could have more open conversations about issues and explore ideas and options with policy makers in ways that they might be able to in more formal project meetings and settings.

4.7.5   Local people

All project teams emphasised the importance of local people as subjects and targets of research but also as participants, partners, informants and implementers. An example of this is:

> *"we also want to influence farmers, not just policymakers, because you can have all the great right science in the world but then if no one will do it because they have a belief that trees should be planted at 2000 stems per acre rather than 1000 or 800, you know, you haven't won the battle…"*

Stakeholder mapping and policy and social network analysis techniques are widely used in social sciences to understand the people and agencies involved in policy processes and the relationships between them. However, they are not common research methods employed in more technically-oriented projects. This can result in lags between finding good technical solutions to problems and getting them to the right policy makers in the right timeframe in a way that they can understand and use. Even if the science is presented well there is also no guarantee it will be used. Ne researcher observed:

> *"So it's about policy, it's about legislation. It's about capacity building. It's about empowering champions. It's about community involvement. It's about having a solution that's scientifically defensible. But it's all about people at the end of the day, is that people are the decision makers, and sometimes people will sidestep good science for a political outcome"*

This resonates well with the policy problems of whether academics get the right evidence in the right way to the right people at the right time in the right places and that policy actors are not perfectly rational and they tend to privilege what they believe rather than accept information that might challenge those beliefs, particularly if this is politically unpalatable. Herein the role of the 'narrative' and 'storytelling' become important; not just as used by the project but term of how it moves between different people. As Davidson (2017) points out, ideally, scientists would present the "facts" or "evidence" to policymakers, who would then make rational choices. Having to tailor persuasive efforts towards the reality of emotional and moral decision-making can be seen somehow as a corrupting factor, forcing scientists to reluctantly tailor, often by simplification, their messaging in order to have influence over policy. However, our case studies suggest that there are pathways through which research information can penetrate policy making, including through 'showing' and 'hearing form locals'; and the people best place to 'show and tell' may be Lao people (such as farmers, fishers and forester) see those best place 'see and listen' are often local government technical officers or local politicians.

> *"Reality checking' at the local level was seen as important for contextualising research, creating information and to provide room for learning"*

As Huntington (2021, 9) points out, there has been a significant gap in discussions about it actually mean for practitioners to work in an evidence-based way; and that when advocates and agencies talk about the use of evidence, they neglect to consider the point that what they are discussing is a mode of practice – a way that we want policy workers to approach their jobs. To appreciate what evidence-based policy involves, we must therefore explore the experiences and perspectives of those concerned, and this means doing research about policy making both in defined policy places and elsewhere, and recognising the various interpretations of what policy actually is.

5   CONCLUSIONS

The focus of this study is on understanding the relationship between research and policy in practice, in the Lao context. This paper explores ACIAR and its partner country policy settings, and the experiences of ACIAR projects and their research teams in undertaking research, navigating policy processes, and project impacts. We consider research project design and the context in which this occurs, project implementation and examples and claims of policy impact as well as personal perceptions about notions of policy, research and evidence, and the ways that research generated data and information is used in policy in Laos. A mixed, qualitative methods approach is used in our analysis. From this we draw the following conclusions.

Both the Government of Laos and ACIAR have stated expectations that 'evidence' is used, or should be used, in policy making. ACIAR expects its research investments to both generate robust scientific data and find ways to transform this into information that is taken up in policy or in policy processes. However, this expectation is relatively recent, and projects have not historically been designed to do this. ACIAR's research orientation has historically been tailored towards resolving technical or practical issues that are inhibiting development. While project hypotheses and goals are often anchored to, and justified on. the basis of 'Big P' Lao policies, expectations of changing these have been realistically low. However, there have been successes, by chance or design, in influencing 'small p' policies and practice. From the Lao perspective, the discourse of evidence-based-policy is also relatively new and growing; while there are explicitly-stated expectations that policy will be based on evidence, information is sought from a range of sources. ACIAR projects are just one such source.

ACIAR has realised, based on the recent achievements of some projects, that in order to increase the transfer of research to policy development and practice, there is a need to better understand the nature and interface of research and policy, and design projects accordingly. This project is one of the investments being made to help do this, but there are other elements to ACIAR's program structure and project design that are intended to aid this goal – having a cross cutting policy-oriented program theme is one, and building policy goals into theories of change is another. However, there are elements of project design that could increase effectiveness of policy impact, although not all projects will or should have this as an explicit goal.

On this latter point, two of the project themes we studied have, by design, built on long term technical investments to focus current project iterations, at least in part, on policy-oriented research. The solid technical groundings of these projects, which has taken years and facilitated the establishment of strong inter-personal relations grounded in trust and familiarity, have enabled a transition from 'data' to 'information' and 'knowledge'. In the case of Forestry projects, which integrated a 'policy focus' into project design earliest, the take-up in policy and opportunity to engage in policy processes is most apparent. In the case of Fisheries, this is happening now. In other program areas, the policy drive has been less explicit, and this transition has not yet occurred, although there are claims of policy 'impact'; the emphasis has remained more on local practice rather than bigger policy goals.

This more localised emphasis of research is understandable; ACIAR's projects are commonly designed around at least some research undertaken in the field and with communities to identify and resolve problems, consistent with ACIAR's systems and farmer-focussed approach. Indeed, these project's objectives and impacts exemplified the different perspectives of researchers with whom we spoke about what policy is, and what ACIAR expects in terms of policy impact. However, these researcher perspectives did not necessarily align with those of the program managers we spoke to, which presents a conundrum for policy design, implementation and evaluation of impact. It may the case that both parties are saying or writing the words they think the other wants to hears or read, with some assumed common understanding that is not made explicit.

On the question of 'what is policy?', it is clear that views are diverse but there are some commonalities, including, perhaps most importantly, that policy is not easy to define. Our interviews revealed that even the terms used for 'policy' in Lao and English can have very precise and different meanings, and various applications depending on the context in which they are used. However, the term 'policy' is used, at least in the most recent of the projects we reviewed, as framing and justification for research, and in some cases the as a target of that research. Getting the terms and language right within teams, when participating in policy process or talking to local people, is

important. As a concept, policy needs to be explored at the outset by project teams and with RPMs to avoid design flaws, disappointment, and possible unintended consequences.

Framing research in the context of 'big P' policies was seen as important because it is expected in ACIAR project documents, and it builds credibility with government partners; as projects work to address issues identified by the government, this helps establish legitimacy of the project, and for the researchers involved and of their results. Participating in ACIAR projects can build researchers' profiles and enhance perceptions of merit; by enhancing their reputation they may be more likely to be asked to participate in processes where research and evidence are needed for policy making. However, it should not be assumed that all project team members are able or willing to do this.

National, public policies are viewed as the domain and responsibility of the Lao Party; they are "policy makers" who set the agenda and goals for the nation to work towards. Focussing research toward reforming or changing these 'big P' policies seems unrealistic in terms of penetrating the spaces in which those policies are made and providing the evidence needed to influence them. For Lao and foreign researchers alike, these 'high-up' processes are perceived as obscure and impenetrable. The political structures are not typically seen as spaces occupied by researchers. The understanding that, within the authoritarian state apparatus, the presentation of evidence needs to be tailored to the political setting and ideological framing, was noted by both Lao and Australian researchers alike. This doesn't mean, however, that project researchers are powerless in taking their results into these places; party membership, ministerial party committees and formal policy process allow for this, and this is an avenue project teams should explore for having policy impact. Project structures, such as advisory and reference committees, can be effective vehicles with well-chosen representation and pro-active management. Providing Australia's diplomats in Laos, who may interact with more senior lo officials, with information that is relevant to known policy problems is also another pathway.

That policy is more than high level government statements was also a common perspective for Lao and Australian project team members. 'Localised' interventions, articulated as 'policy measures', were observed to be a practical and realistic target for ACIAR project research to influence While examples given where more technically oriented and focussed on changing farmer behaviour, for example, respondents certainly viewed this as having 'policy impact'. What was less well described were the means by which these interventions effectively trickled back up into some more formal policy document. These 'small p' policy local impacts still need to be some connected to higher-up government policies – Lao researchers do not want to (be seen to) go against the Party or the policies; conformance to the high-level policy goals is important.

Our review of ACIAR projects in Laos revealed that that they generate large amounts of locally generated data that is transformed into information through various means – project reports, summary documents, presentations, academic papers, and increasingly via social media. Projects require communications strategies to be built into their design. However, tracking whether and how this information becomes knowledge and is utilised as evidence in policy-making is difficult. Some projects claimed policy 'impact' or 'influence' but clear links are difficult to prove, especially because most projects do not explicitly include 'policy monitoring' in their activities, or in ACIAR project documents. The spaces in which impacts are reported are agnostic on policy.

Examples were given of research-to-policy transfer, with 'policy' used different ways. We heard, for example, about Lao researchers participating in policy-development processes, as in the case of Forestry Strategy; of technical information about fish passageways being taken up in Regional Guidance; of veterinary research changing local practice; and of decision support tools influencing rice production. However, in looking through all of the many information sources about these outcomes, direct connections remain obscure.

What did become apparent were some of the most effective means by which policy-makers learnt about research findings, and this was though seeing and hearing. Where take-up was most evident it appeared to be because projects had taken time to identify policy-makers or policy influencers, and either involved them directly in the research, had taken them to see the research in action, or found other ways to bring them together with researchers, practitioners and the subjects (human or otherwise) of the research. The types of activities included: demonstration sites (e.g. plantation Nelder wheels; prototype fish passageways), in-country study tours to hear from local farmers, or international trips to observe practices in neighbouring countries, and problem solving and participatory workshops and masterclasses. The activities and events not only resulted in knowledge

co-production, and better understanding by policy makers of the data produced and solutions proposed, but enhanced the relations between people who often operate in different spaces by bringing them together on common ground. While formal, and even performative, processes are important, the opportunities presented by less informal circumstances and settings allow researchers to better understand policy-makers' (and influencers') values and priorities, and help policy-makers better comprehend the constraints on doing research. This is particularly an issue given the different timeframes in which these groups operate.

'Hot topics' were identified as important by researchers and policy makers, but also seen as challenging aspects of doing research for policy, linked to perceptions that topics come and go quickly, that research takes much longer than the timeframe in which issues need to be addressed, and because the data and information are not on readily at hand when asked for, resulting in policy-maker disappointment. This problem is not unique to the research-policy nexus in Laos. In exploring this issue, answers to the question of 'what is research?' revealed that, as with 'policy', 'research' is understood differently depending on the context. Those most often engaged in ACIAR research projects are specialist scientists within research institutions. Lao policy practitioners, those supporting the development of a policy or response to a hot topic, are also researchers of a sort; they may seek out data and information generated by ACIAR research projects and transform this into evidence but are less frequently embedded within project teams. As less 'conventional' scientists or researchers, their value is less well recognised, and their participation in projects infrequently explicitly resourced. Indeed, it is only relatively recently that ACIAR project teams and project designs have explicitly accommodated the social and political sciences.

Regardless of whether ACIAR projects are contextualised by, and aimed at, 'big P' policies, or more focussed on 'small p' interventions, there are group of often overlooked, or under-recognised, actors who can play a key role in transforming research into policy-evidence. These are the local politicians (such as Provincial Assembly members) and bureaucrats who interact daily with the people at whom ACIAR research is most frequently targeted – farmers, fisheries, foresters and others. It is these people that whose job it is to take, interpret and implement 'big P' policy and who have to adapt it to their local settings; they see and hear problems as they arise (sometimes creating them) and develop 'small p' interventions in an effort to find solutions. By identifying, getting to know and centring these people in research, ACIAR projects may find pathways for the transformation of data and information into evidence that has some influence on policy, and the connections made may help projects become nimbler in responding to policy issued as they arise.

The research that ACIAR commissions, the data and information derived, and the knowledge and evidence these may generate, cannot however guarantee policy impact. Even if policy process are known, access is given, and good connections and trust are established, there will always be alternative courses of action that policy makers can take. They have to chart a course of action determined by a broader suite of factors that sit outside the realistic scope of projects and project teams. Policy choices may be obscured by 'hidden agendas', or simply by the complex realities in which policy makers operate, and to which ACIAR research outputs are just one input.

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7 APPENDIX 1: INTERVIEW GUIDING QUESTIONS

General Information

A. Name of the Respondents:	
B. Consent information:	
a. Oral or Written?	
b. Confidential?	
c. Interview recorded?	
C. Date of interview:	
D. Place of interview:	
E. Interviewers:	
F. Position of the respondent:	
G. Institution:	

Part 1

Can you each tell us a bit about yourself?

Your background, your organisation, the role of your organisation, your role in the organisation.

We are particularly interested in the following ACIAR project/s:

List relevant projects

1. Please give a brief description of the background to the ACIAR project/s
   a. When and where did the idea for the project came from?
   b. Who was involved in developing the project?
2. Can you each describe <u>your role</u> in the ACIAR projects? How did you come to be involved in the projects?
3. Was the project designed specifically to inform policy or policy making processes?
   a. How do you describe/think of 'policy'?
   b. Did the project have a particular long-term policy-related goal?
   c. What were the basic assumptions/pathways in the project for achieving this goal?
      i. What were the project's policy process design-features, interventions etc?
   d. What types of research did project undertake?
      i. How do you describe/think of ''research?
      ii. How do you describe/think of 'evidence'?
4. Were there specific policy targets for your research - individuals or organisations?
5. How was your research communicated to these people or organisations? (forms, media, methods, frequency etc)
6. Have you seen evidence that your ACIAR research project/s results were actually used by policymakers or other people or projects in a way that influenced policy making or policy in practice?
   a. If Yes, can you provide specific examples (can be media, reports, meetings, policies, practices (changes in behaviour)?
   b. If No, why do you think it was not used?
7. Do you think that your projects achieved their objectives with respect to research to policy impacts or practice?

Part 2

We are interested in how you interact with/participate in policy processes generally? How do you view the policy making processes in Laos?

8. From your own experience can you describe policy making process in Laos – e.g. roles, processes, participants? Have you participated in any policy-making processes?
   a. Do you have any hunches, observations, likely scenarios about how policy making actually occurs? What institutions are involved?
9. Generally, what do you think is the attitude of policy makers in Laos towards research evidence?

      a.   Is policy influenced by research or is research determined by policy?

10. What are the core elements determining the translation from research to policy generally in Laos?
11. Why do you think policy makers do/do not use evidence from research?
12. Are there core factors influencing the Lao policy contexts we definitely ought to know about? Or that make the Lao case unique?
13. Thinking back on your ACIAR projects again now, is there anything you would change with respect to research to policy impact?
14. Do you have any suggestions on how policy process and research can better come together?
15. Do you have questions for us about this ACIAR project?

Thankyou

9 APPENDIX 2

9.1 Fisheries projects

The list of projects and project document reviewed are in Table 4 and the list of project outputs, external documents and other sources of information are in Table 5. Figure 2 summarises the timeline of Fish passageway projects in Laos and

Case Studies

Figure 3, which is taken from FIS/2018/153 FPP, shows the alignment of that project with the ACIAR scale-out model; with reference to progress made through previous funded-activities. Figure 4 shows the Fisheries program Area Theory of change and where policy fits into this.

Table 4: List of fisheries case study documents reviewed

Project Number	Project Title
FIS/2006/183	Development of fish passage criteria for floodplain species of central Laos
FIS/2007/076	Thai Department of Fisheries assistance with Lao Fish Passage Development Program
FIS/2009/041	Development of fish passage technology to increase fisheries production on floodplains in the lower Mekong and Murray-Darling River basins
FIS/2011/072	Pilot study for development of fish friendly irrigation and mini hydro design criteria for application in the Mekong and Murray-Darling Basins
FIS/2012/100	Improving the design of irrigation infrastructure to increase fisheries production in floodplain wetlands of the Lower Mekong and Murray-Darling Basins
FIS/2014/041	Quantifying biophysical and community impacts of improved fish passage in Lao PDR and Myanmar
FIS/2017/016	Xayaburi SRA
FIS/2017/017	Assessing upstream fish migration measures at Xayaburi Dam
FIS/2018/153	Translating fish passage research outcomes into policy and legislation across South East Asia

Table 5: List of fisheries project outputs, external documents and other sources of information

Document/source

Lynch A.J. et al (2019) Speaking the same language: can the sustainable development goals translate the needs of inland fisheries into irrigation decisions? Marine and Freshwater Research https://doi.org/10.1071/MF19176

Thorncraft G., Baumgartner, L., and T. Marsden 2005 Fish passage and fishways in the Mekong Basin: getting past the barriers. Proceedings of 7th Technical Symposium on Mekong Fisheries Ubon Ratchathani, Thailand, 15th - 17the November 2005

Baumgartner, L. J., Barlow, C., Mallen-Cooper, M., Boys, C., Marsden, T., Thorncraft, G., Phonekhampheng, O., Singhanouvong, D., Rice, W., Roy, M., Crase, L., Cooper, B., (2021) Achieving fish passage outcomes at irrigation infrastructure; a case study from the Lower Mekong Basin, Aquaculture and Fisheries, 6,2, p 113-124.

Lee J. Baumgartner, Craig A. Boys, Chris Barlow, and Mike Roy (2017) Workshop Report: Lower Mekong Fish Passage Conference: Applying innovation to secure fisheries productivity. Ecological Management and Restoration, 18:3 pages E9-E12.

And see https://fishbio.com/field-notes/mekong-basin/innovative-solutions-fish-passage-mekong-basin

https://laos.embassy.gov.au/vtan/Lower-Mekong-Fish-Passage-Conference.html

ACIAR Sustainable Fisheries and Irrigation Expansion in Lao PDR: Incorporating fish passage into sustainable development practices and policy in Lao PDR, 8p.

ADB (2020) Diversion Weirs and Fish Passages for Small-Scale Irrigation. Lao People's Democratic Republic, 46p.

FAO. (2013). Report of the FAO/SEAFDEC Workshop on Principles of Improved Fish Passage at Cross-river Obstacles, with Relevance to Southeast Asia. Khon Kaen, Thailand, 17–20 March 2013. FAO Fisheries and Aquaculture Report No. 1054. Rome. 90 pp.

The MRC (2015) Review of Existing Research on Fish Passage through Large Dams and its Applicability to Mekong Mainstream Dams MRC Technical Paper No. 48 June 2015,

Chris Sneddon 2007 Fisheries science and the politics of knowledge production in the Mekong region. Paper presented at "Critical Transitions in the Mekong Region," Conference sponsored by the Regional Center for Social Science and Sustainable Development (RCSD), Chiang Mai, Thailand, 29-31 January 2007 (note in 2007 from work very much in progress – please do not cite without permission).

Mekong River Commission (2015) Review of Existing Research on Fish Passage through Large Dams and its Applicability to Mekong Mainstream Dams MRC Technical Paper No. 48 June 2015

Mekong River Commission (2014) Guideline to Prioritising Fish Passage Barriers and Creating Fish Friendly Irrigation Structures Lower Mekong Basin, 96p

Baumgartner LJ, Roy M and Techasarin K. (2019). Lower Mekong Fish Passage Initiative. Masterclass in Fish Passage Engineering, Design, Construction, Ecology and Monitoring. 18 pp.

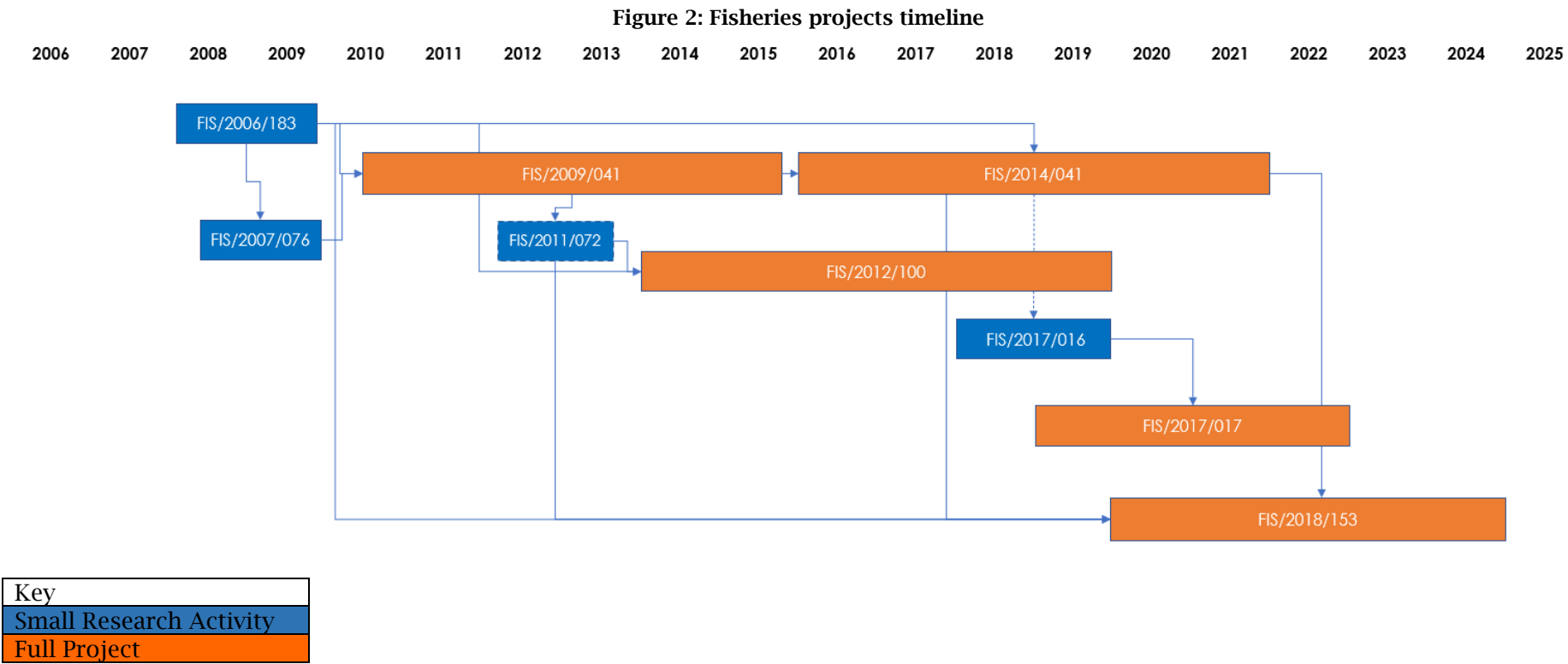conference a 'move into policy' was flagged.

See https://www.aciar.gov.au/media-search/blogs/ladders-success

Figure 2: Fisheries projects timeline

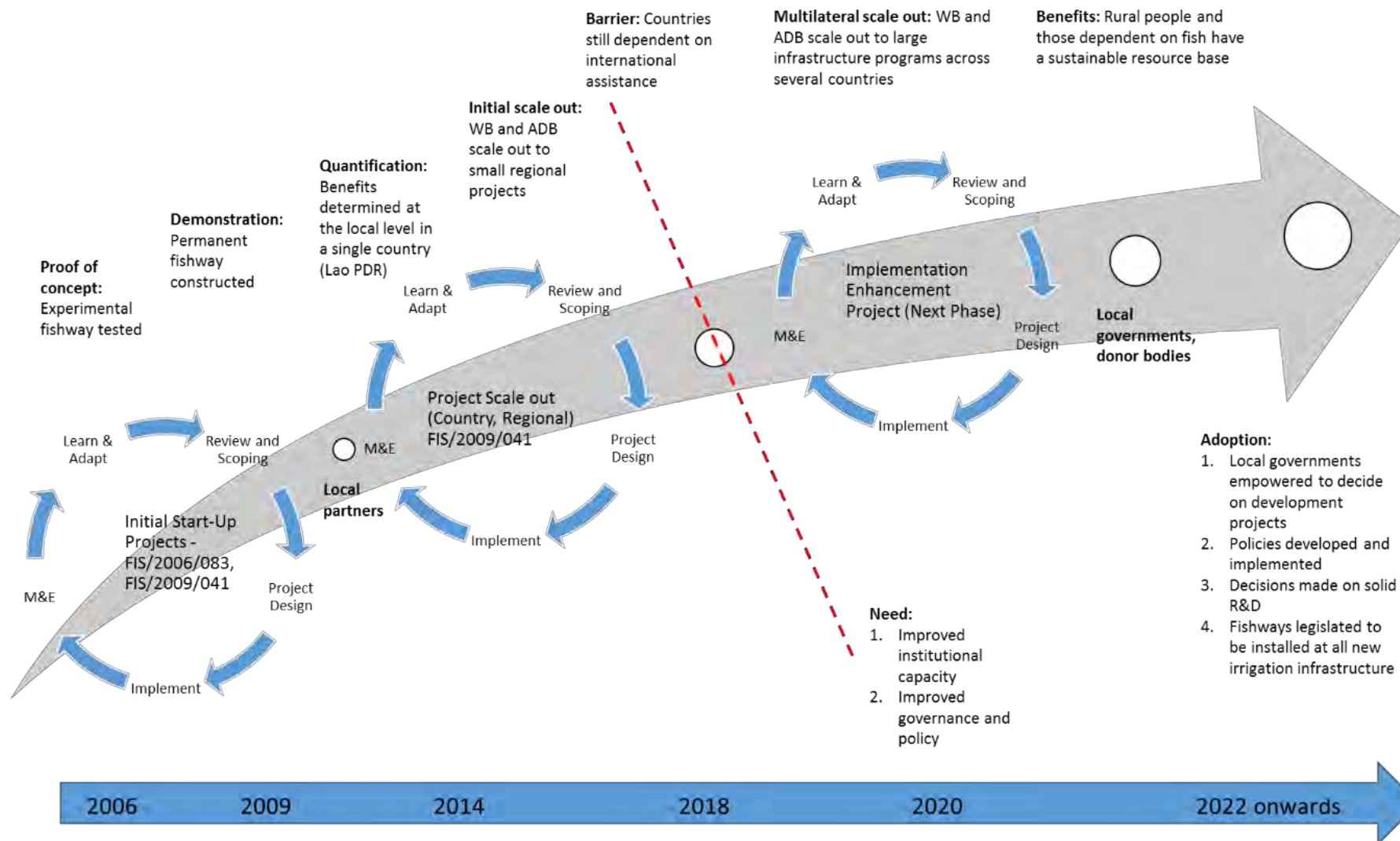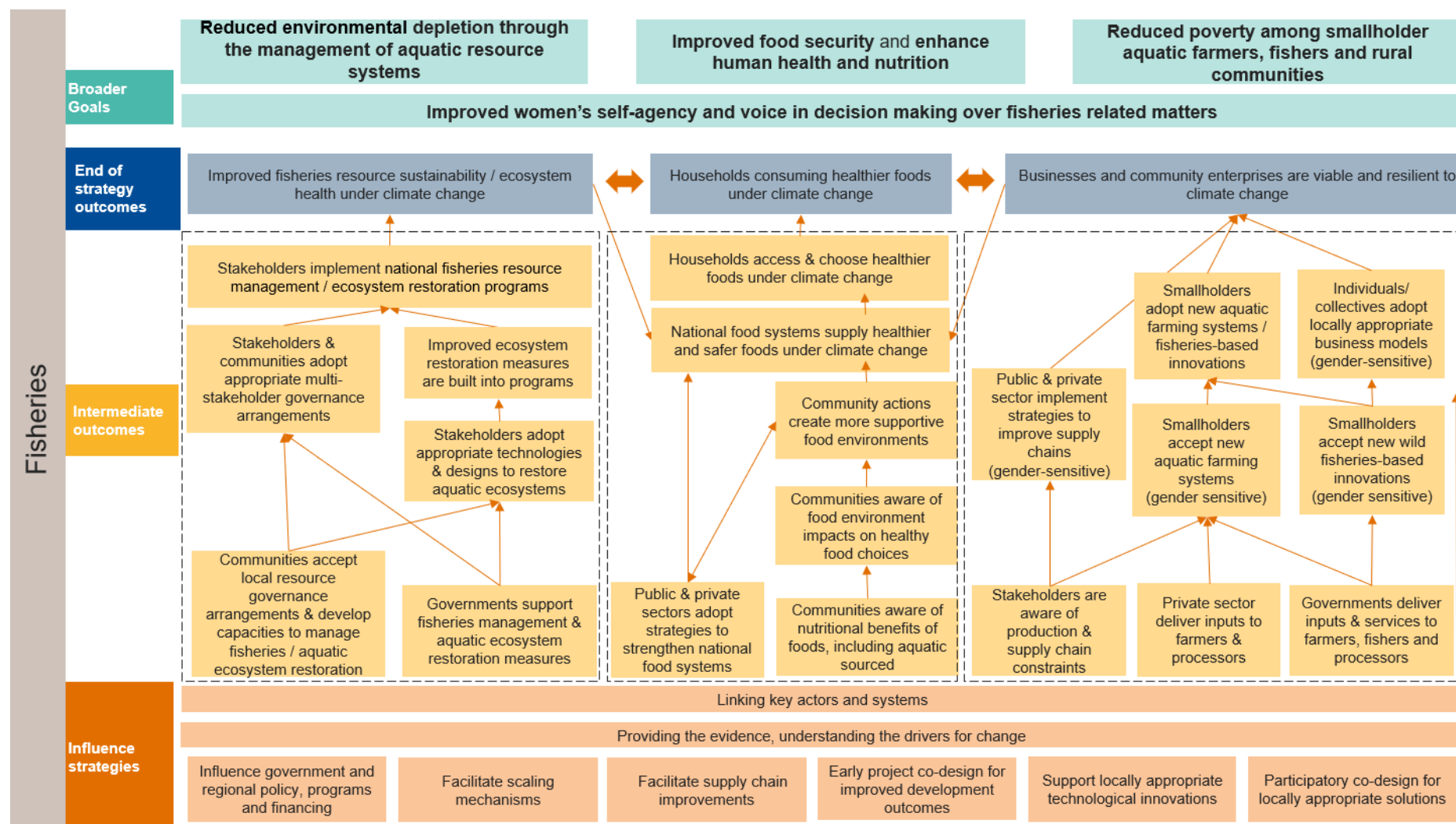**Figure 3: Diagram from FIS/2018/153 FPP**

Figure 4: Fisheries Program Area Theory of Change

9.2 Forestry projects

The list of projects and project document reviewed are in Table 6 and the list of project outputs, external documents and other sources of information are in Table 7. Figure 5 shows the timeline of Forestry projects and Figure 6 the Forestry Program Theory of Change.

Table 6: List of Forestry Case Study Projects and Documents Reviewed

Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
Scoping Study	Towards improving profitability of teak in integrated smallholder farming systems in northern Laos			✓		
FST/2005/100	Value adding to Lao PDR plantation timber products	✓		✓	✓	
FST/2004/057	Exploration of teak agroforestry systems in Luang Prabang, Lao PDR			✓		
FST/2010/012	Planted wood - Laos	✓	✓	✓	✓	
FST/2012/041	Teak-based agroforestry systems to enhance and diversify smallholder livelihoods in Luang Prabang province of Lao PDR					Fact Sheet
FST/2014/047	Improving policies for forest plantations to balance smallholder, industry and environmental needs in Lao PDR and Vietnam	✓	✓	✓	✓	
FST/2016/151	Advancing enhanced wood manufacturing industries in Laos and Australia	✓	✓	NA	NA	
FST/2019/121	Policy analysis forest plantations Lao PDR Vietnam	✓	NA	✓		

Table 7: List of Forestry project outputs, external documents and other sources of information

Project	Document reference
VALTIP2	Smith, H. F. (2016) Making smallholder owned plantation wood legal: Alternatives to plantation registration, VALTIP2
VALTIP2	Smith, H.F (2016) Activity 1.2a Smallholder Plantation Legality, VALTIP2 final presentation
VALTIP2	Said, A. (2016) Transaction Costs Associated with Growing and Selling Smallholder Plantation Grown Wood in Lao PDR – Incidence and Mitigations. Final Report VALTIP2
VALTIP2	Smith , H. F. (2016) Demonstrating Legal source of origin for plantation grown wood: an alternative to plantation registration. Policy Brief: for "Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR" (Project FST/2012/012, VALTIP2).
VALTIP2	Smith, H. F, (2014) Smallholder Plantation Legality in Lao PDR: A study to assess the legal barriers to smallholder plantations and the associated timber value chain. Completed as a component of the Australian Centre for International Agricultural Research (ACIAR) funded Project FST/2010/012 Enhancing Key Elements of the Value Chains for Plantation Grown Wood in Lao PDR, 136 pp.
VALTIP2	Smith, H. F., Ling, S and Boer, K. (2016) Teak plantation smallholders in Lao PDR: What influences compliance with plantation regulations? (Smith, Ling and Boer 2016 – submitted to Australian Forestry /under review)

VALTIP2	Smith, H.F., Boupha, L., Boer, K.B., Midgley, S., Ling, S., Laity, R., Flanagan, A., Said, A. and P. Kanowski (2016) Policy Changes are needed to unlock the potential of the smallholder plantation resource in Lao PDR. Policy Brief: for "Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR" (Project FST/2012/012, VALTIP2)
VALTIP2	Smith, H. F. and Phensopha, K. (2014) Policy brief on legal barriers and legality issues for smallholder plantation owners and their wood. Policy Brief: for "Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR" (Project FST/2012/012, VALTIP2)
VALTIP3	Briefing note to DG of Forestry on the impact of PMO15 on smallholders
VALTIP3	
VALTIP3	VALTIP3 project https://laoplantation.org/valtip3/about-us/project-background/
VALTIP3	VALTIP3 Facebook page https://www.facebook.com/laoplantation,
LVPPP	Report: Tree Plantations in Lao PDR: Policy Framework and Review, 2017
LVPPP	Report: Tree Plantations in Lao PDR: Environmental management and protection measures, 2017
LVPPP	Policy Brief: Initial Lao PDR Plantation Policy Assessment No. 1: The role of plantations to increase forest cover, foster sustainable forest management and economic development in Lao PDR, 2017
LVPPP	Policy Brief: Initial Lao PDR Forest Plantation Policy Assessment No. 2 Industrial Tree Plantations: Examining Their Effects and Contribution to Livelihoods, 2017
LVPPP	Policy Brief: Initial Lao PDR Forest Plantation Policy Assessment No 3. Regional and national economic benefits of different plantation development approaches, 2017
LVPPP	Policy Brief: Initial Lao PDR Plantation Policy Assessment No 4. Environmental impacts and benefits of different plantation development approaches, 2017
LVPPP	Policy Brief: Regulation for investment in tree plantations in Lao PDR, 2018
LVPPP	Policy Brief: Improving environmental outcomes from forest plantations in Lao PDR and Viet Nam: regulations and forest certification, 2018
LVPPP	Policy Brief: Social Outcomes from Tree Plantations Development in Lao PDR: Evidence from 6 Villages, 2018
LVPPP	Policy Brief: Smarter regulation of plantation wood value chains in Lao PDR, 2018
LVPPP	Policy Brief: Land Tenure, Zoning, and Compensation in Tree Plantations Development in Lao PDR, 2018
LVPPP	Policy Brief: Carbon rights and trading in Australia: lessons for Lao PDR and Viet Nam, 2018
LVPPP	First Plantations Policy Forum Report, 22 March 2016, Vientiane, Lao PDR
LVPPP	Second Plantations Policy Forum Report,21-22 March 2017, Vientiane, Lao PDR
LVPPP	Third Plantations Policy Forum Report (including economic training) 20-22 June 2019, Vientiane, Lao PDR
LVPPP	Steering Committee Report, 17-18 January 2017, Hue, Viet Nam
LVPPP	Project Steering Committee Report, 5-6 Dec 2017, Luang Prabang, Lao PDR
LVPPP	Project Steering Committee Report, 6-7 Dec 2018, Da Nang, Viet Nam

Figure 5: Forestry projects Timeline

Wood processing and forestry

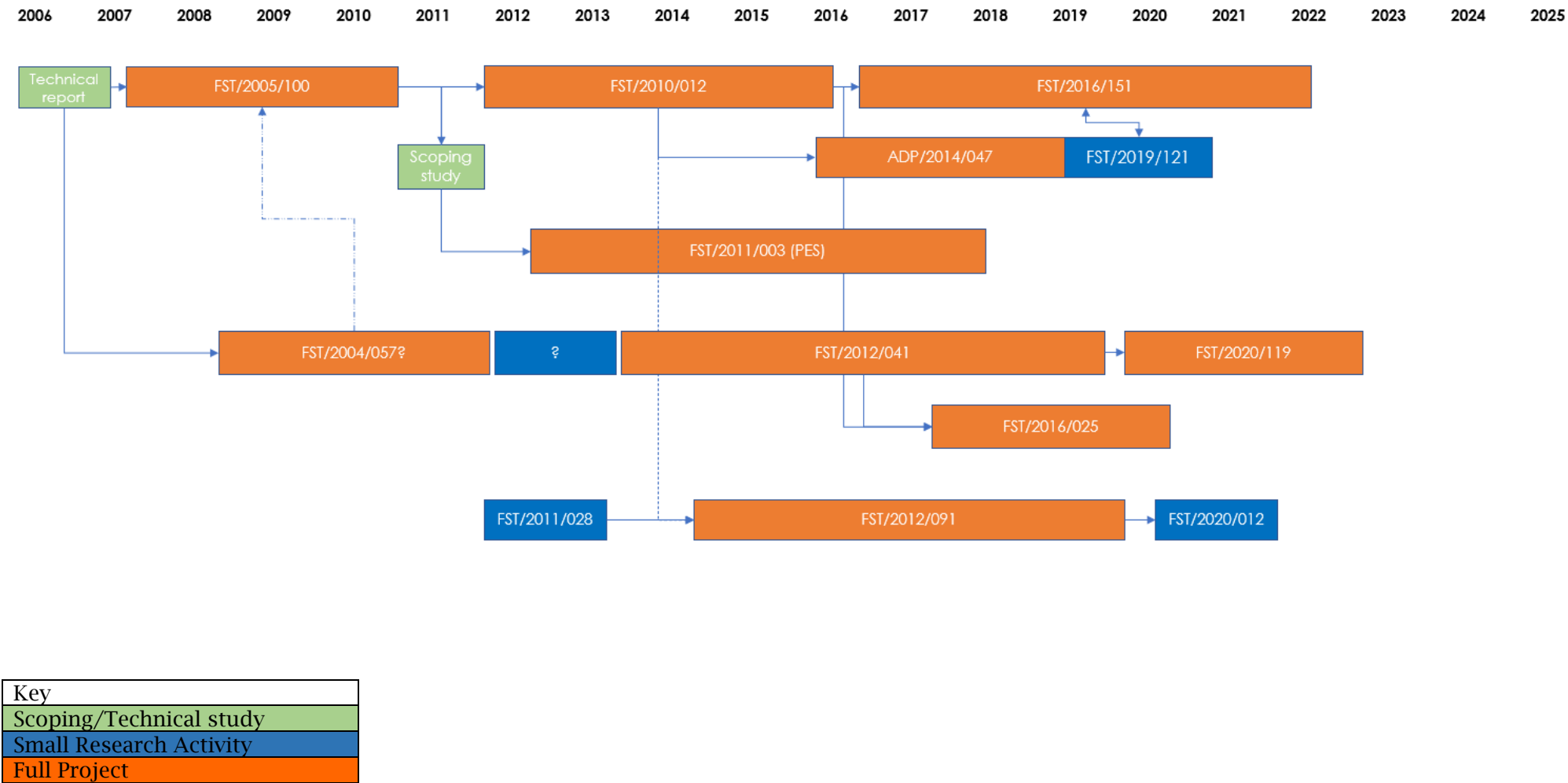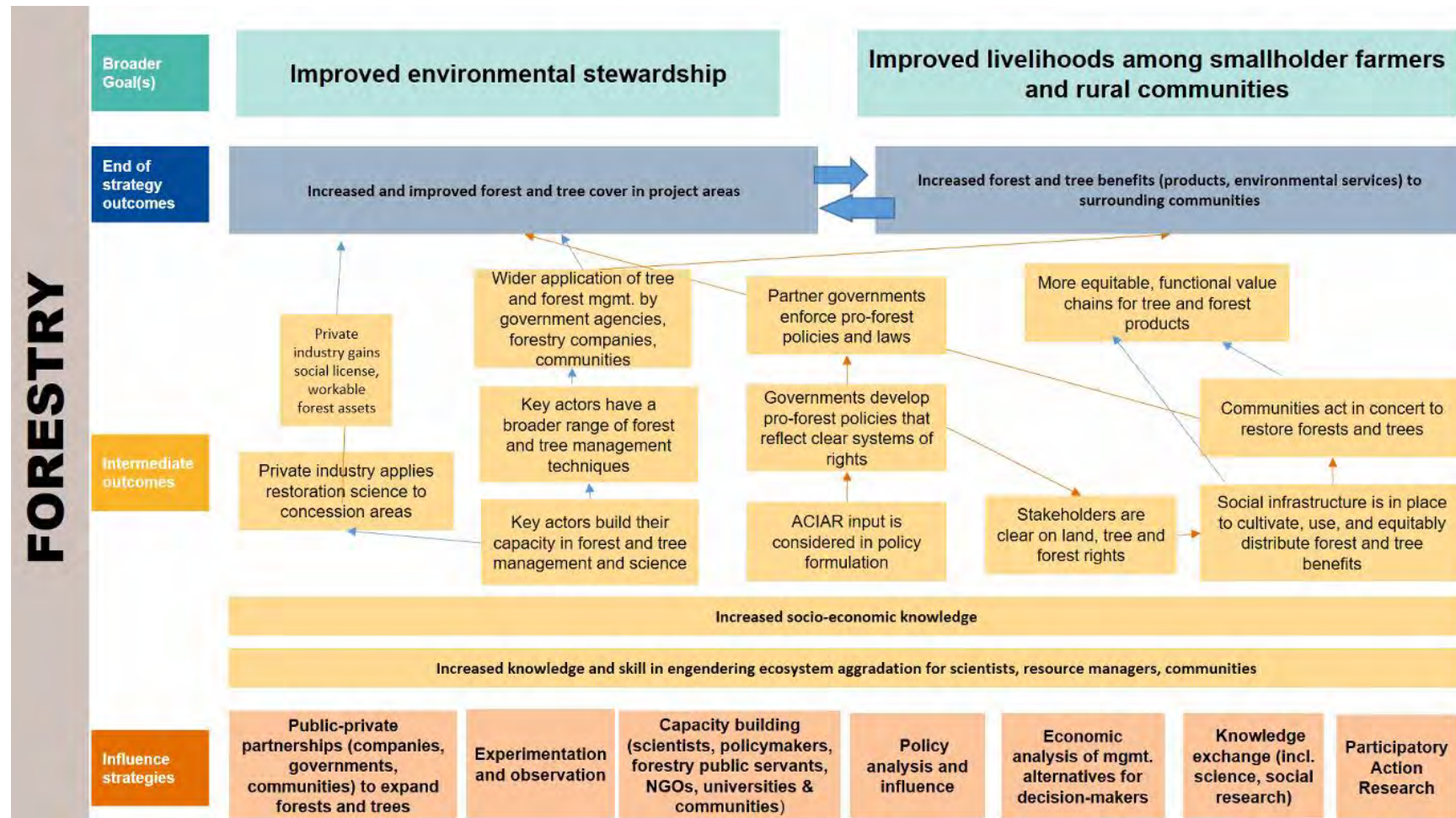| Key	
Scoping/Technical study	
Small Research Activity	
Full Project	

Figure 6: Forestry program Theory of Change

9.3 Livestock Projects

The list of projects and project document reviewed are in Table 8, Table 9 and Table 10, and the list of project outputs, external documents and other sources of information reviewed are in **Error! Reference source not found.** Figure 7 shows the timeline of livestock projects reviewed.

Table 8: List of Cattle and Buffalo Case Study Projects and Document Reviewed

Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
AH/2006/077	Identifying research priorities for the development for the beef industry in Cambodia and Lao PDR with special reference to animal health interventions	✓		✓		
AH/2006/159	Best practice health and husbandry of cattle and buffalo in Lao PDR	✓		✓	✓	
AH/2012/067	Enhancing transboundary livestock disease risk management in Lao PDR			✓		
AH/2012/068	Development of a biosecure market-driven beef production system in Lao PDR	✓		✓		

Table 9: List of Pig Case Study Projects and Document Reviewed

| Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
LPS/2004/046	Forage legumes for supplementing village pigs in Lao PDR			✓		
AH/2006/161	Management of pig associated zoonosis in the Lao PDR'	✓		✓		
AH/2009/001	Increased productivity and reduced risk in pig production and market chains. Component 1: animal and human health	✓		✓		
AH/2010/019	Increased productivity and reduced risk in pig production and market chains. Component 2: animal production'	✓				

Table 10: List of Chicken Case Study Projects and Document Reviewed

Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
LS/2018/216	Incentives for early declaration and effective prevention of avian influenza in the Mekong'	✓		✓		

Table 11: List of Livestock project outputs, external documents and other sources of information

Project	Document/Source
	SEACFMD Roadmap 2016 A strategic framework to control, prevent and eradicate foot and mouth disease in South-East Asia and China 2016-2020
	Policy on Beef and Biosecurity for Laos draft in 2017
	https://www.adb.org/sites/default/files/project-documents/53240/53240-003-ipsa-en.pdf
	https://mekonglivestock.wordpress.com/
	https://thebpp.com.au/blog/a-positive-impact-from-partnership-a-new-foot-and-mouth-disease-treatment-in-laos/
	https://www.animalhealth.works/post/2019/07/08/risk-based-fmd-strategies-for-myanmar-and-lao-pdr
	https://www.crawfordfund.org/news/news-capacity-building-for-biosecurity-in-lao-pdr-january-2017/

Figure 7: Livestock projects Timeline
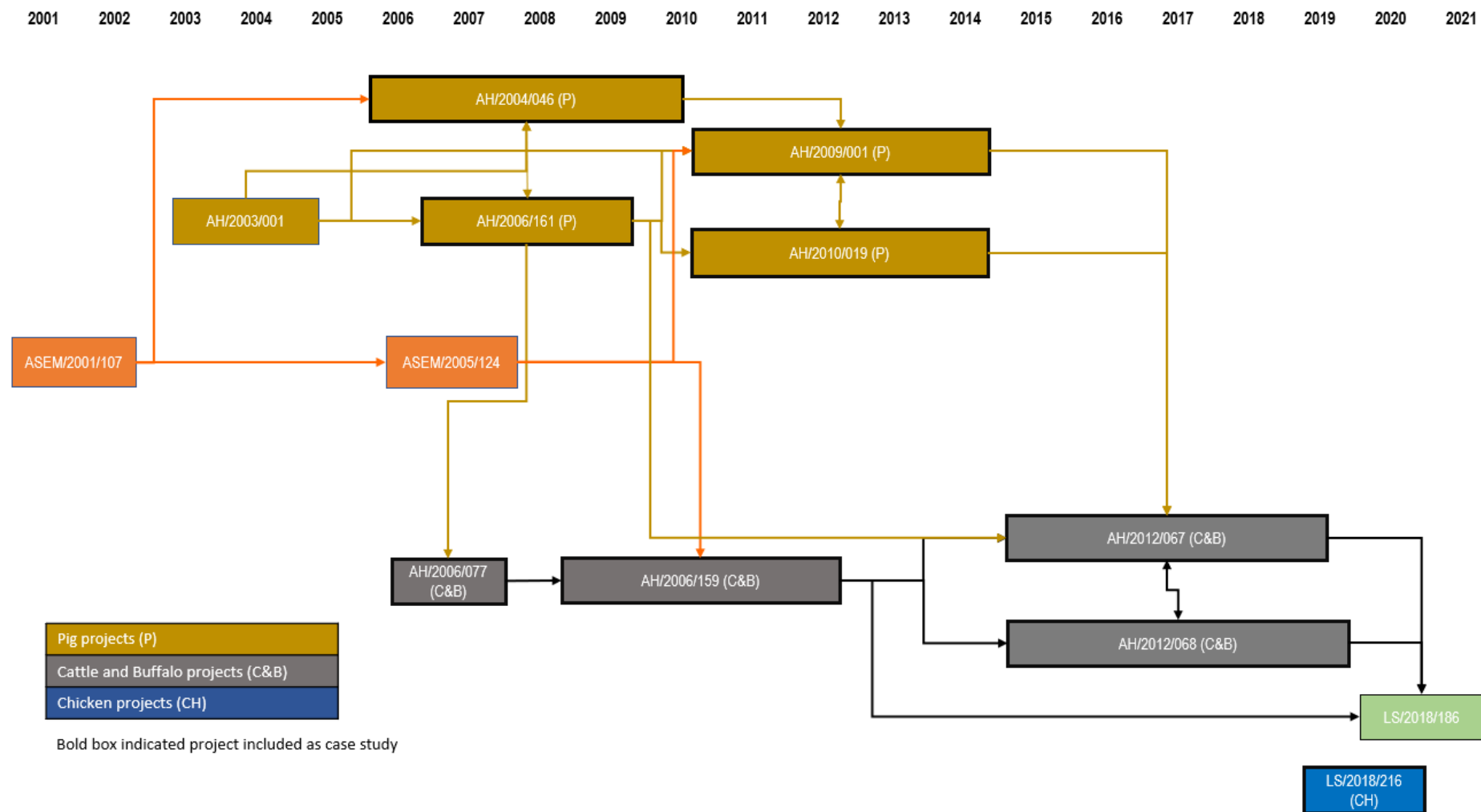
9.4   Rice and related projects

The list of projects and project document reviewed are in Table 6 and the list of project outputs, external documents and other sources of information are in Table 13. Figure 8 shows the timeline of rice related projects.

Table 12: List of Rice and Related Case Study Projects and Document Reviewed

Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
CSI/1995/100	Plant breeding strategies for rainfed lowland rice in northeast Thailand and Laos	✓		✓	✓	
CIM/1999/048	Increased productivity of rice-based cropping systems in Lao PDR, Cambodia and Australia	✓		✓	✓	Project extension document
CSE/2006/041	Increased productivity of rice-based cropping systems in Lao PDR	✓		✓	✓	
ASEM/2009/039	Agricultural policies affecting rice-based farming systems in Bangladesh, Cambodia, and Lao PDR	✓		✓		
ASEM/2009/023	Developing agricultural policies for rice-based farming systems in Lao PDR and Cambodia	✓		✓		

Table 13: List of Rice project outputs, external documents and other sources of information

Project	Document/Source
FIS/2009/041	Cramb, R. (ed) (2020) White Gold: The Commercialisation of Rice Farming in the Lower Mekong Basin. https://doi.org/10.1007/978-981-15-0998-8
FIS/2014/041	Mullen J.D., Malcolm B. and Farquharson R.J., 2019. Impact assessment of ACIAR-supported research in lowland rice systems in Lao PDR. ACIAR Impact Assessment Series Report No. 97. ACIAR: Canberra. 60 pp.
FIS/2017/016	Robins L. (ed.) 2014. A policy dialogue on rice futures: rice-based farming systems research in the Mekong region. Proceedings of a dialogue held in Phnom Penh, Cambodia, 7–9 May 2014. ACIAR Proceedings No. 142. Australian Centre for International Agricultural Research: Canberra. 158 pp.
FIS/2017/017	ttps://www.aciar.gov.au/publication/technical-publications/developing-improved-farming-and-marketing-systems-rainfed-regions-southern-lao-pdr
FIS/2018/153	https://www.tandfonline.com/doi/full/10.1080/09614524.2018.1504890?scroll=top&needAccess=true

Figure 8: Timeline of Rice Projects
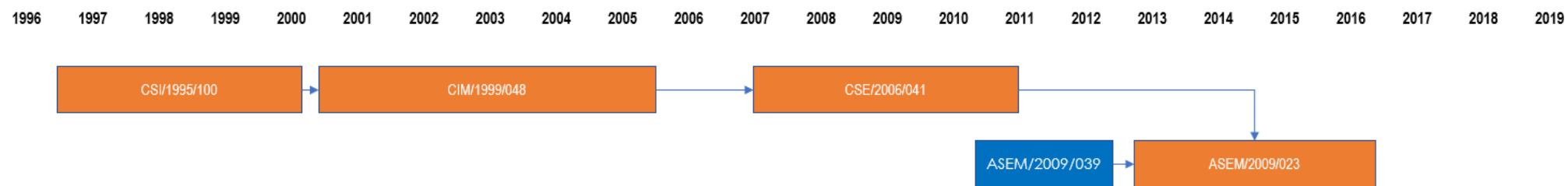
9.5   Groundwater

The list of projects and project documents reviewed are in Table 14 and the list of project outputs, external documents and other sources of information are in Table 15.

Table 14: List of Groundwater Case Study Projects and Document Reviewed

Number	Project Title	Documents reviewed				
		PP	MTR	FR	EoPR	Others
LWR/2010/081	Enhancing the resilience and productivity of rainfed dominated systems in Lao PDR through sustainable groundwater use	✓	✓	✓		
WAC/2018/167	Exploring opportunities to expand groundwater use for livelihood enhancement and climate change adaptation in Laos	✓				

Table 15: List of Groundwater project outputs, documents and other sources of information

Document title
https://waterpartnership.org.au/project/australia-mekong-water-facility/
https://waterpartnership.org.au/improving-management-of-groundwater-resources-in-laos-and-the-sekong-basin/
https://www.mekongeye.com/2020/02/06/developing-groundwater-from-scratch-lessons-from-laos/
Suhardiman, D. Giordano, M., Keovilignavonga, O. and Sotoukee, T. (2015) Revealing the hidden effects of land grabbing through better understanding of farmers' strategies in dealing with land loss. Land Use Policy 49:195–202. http://www.sciencedirect.com/science/article/pii/S0264837715002495
General Assembly of Lao PDR Water Partnership https://www.gwp.org/en/GWP-South-East-Asia/WE-ACT/keep-updated/News-and-Activities/2019/general-assembly-of-lao-pdr-water-partnership/
Suhardiman, D., Giordano, M., Bouapao, L. and Keovilignavong, O. (2016) Farmers' strategies as building block for rethinking sustainable intensification. Agriculture and Human Values 1-12. http://link.springer.com/article/10.1007%2Fs10460-015-9638-3
http://www.riversweb.org/monreCBP/index.php/en/228-posters/131-poster-6 https://gripp.iwmi.org/2020/02/10/new-report-highlights-the-potential-for-sustainable-groundwater-development-and-governance-in-laos/ https://www.mekongeye.com/2020/02/06/developing-groundwater-from-scratch-lessons-from-laos/ https://www.youtube.com/watch?v=e6KuGBin0aY
https://www.youtube.com/watch?v=CGslmANO_i0 https://arionlegal.la/law-on-water-and-water-resources/ Jun 26, 2017 on the drafting on the Water and Water Resources Law
Raj Shivakoti et al. International experience in groundwater governance and its lesson to slowing evolving groundwater irrigation practice in Lao PDR (in preparation for peer-reviewed journal).