The Indonesia-Australia Forest Carbon Partnership: A Murder Mystery

Robin Davies

Abstract

Circumstances were propitious for the establishment of the Indonesia-Australia Forest Carbon Partnership (IAFCP) in 2008, and remained favourable for a considerable period thereafter. IAFCP enjoyed a five-year time window in which it could have achieved some instructive outcomes, even if its formal targets were unrealistic. IAFCP would certainly have fallen victim to domestic politics in Australia had it been flourishing in late 2013; in fact, though, it struggled to make headway from the outset, was effectively liquidated in early 2013, and quietly petered out in mid-2014. It achieved some creditable outcomes, some of which might prove durable, but delivered rather little for an expenditure of A$65 million. This represents a sizeable opportunity missed, owing mainly to the hollowing-out of IAFCP's centrepiece, a large-scale REDD+ demonstration activity in the peatlands of Central Kalimantan—the Kalimantan Forests and Climate Partnership (KFCP).

This paper describes the truncated life of IAFCP in its political context and interrogates a number of possible reasons for its demise. It concludes the main culprit was neither political change nor mismanagement, but rather the failure of the project developer, the Australian government, to engage single-mindedly with the central thesis of REDD+: that the provision of proportional financial incentives to relevant actors can achieve sustained, cost-effective reductions in land-based carbon emissions, thus creating the conditions for public and private investment in the production of internationally tradeable REDD+ credits. Under a more effective KFCP, performance-based payments for measures to protect and rehabilitate peatlands, tied to rough, proxy indicators for emission reduction, would have been provided as early as possible to both communities and sub-national government agencies. 'Livelihoods' assistance would have been squarely situated as an investment in emission reduction, or else as a performance dividend, rather than as a complementary, confidence-building benefit stream. Scientific work on biomass estimation and emission modelling in the KFCP project zone would have been conducted under the aegis of, and would have been more central to, IAFCP's program of support for Indonesia's national carbon accounting system. Moreover, this work would have proceeded in parallel with performance-based financing for practical measures.

Unless it is established that financial incentives can actually operate effectively to counter the main drivers of deforestation in specific landscapes, at a plausibly estimated and affordable cost, it is unlikely that prospective public or private REDD+ investors will place funds at risk, no matter how well-developed are national systems for channelling finance or measuring emission reductions.

Center for Global Development
2055 L Street
Fifth Floor
Washington DC 20036
202-416-4000
www.cgdev.org

CGD Climate and Forest Paper Series #21

CGD is grateful for contributions from the Norwegian Agency for Development Cooperation in support of this work.
Robin Davies. 2015. "The Indonesia-Australia Forest Carbon Partnership: A Murder Mystery." CGD Policy Paper 60. Washington DC: Center for Global Development. http://www.cgdev.org/publication/indonesia-australia-forest-carbon-partnership-murder-mystery

Center for Global Development
Independent research and practical ideas for global prosperity

CGD Policy Paper 060
April 2015

Contents

Foreword

This paper is one of more than 20 analyses being produced under CGD's Initiative on Tropical Forests for Climate and Development. The purpose of the Initiative is to help mobilize substantial additional finance from high-income countries to conserve tropical forests as a means of reducing carbon emissions, and thus slowing climate change.

The analyses will feed into a book entitled *Why Forests? Why Now? The Science, Economics, and Politics of Tropical Forests and Climate Change*. Co-authored by senior fellow Frances Seymour and research fellow Jonah Busch, the book will show that tropical forests are essential for both climate stability and sustainable development, that now is the time for action on tropical forests, and that payment-for-performance finance for reducing emissions from deforestation and forest degradation (REDD+) represents a course of action with great potential for success.

Commissioned background papers also support the activities of a working group convened by CGD and co-chaired by Nancy Birdsall and Pedro Pablo Kuczynski to identify practical ways to accelerate performance-based finance for tropical forests in the lead up to UNFCCC COP21 in Paris in 2015.

This working paper, "The Indonesia – Australia Forest Carbon Partnership: A Murder Mystery", by Robin Davies of the Australian National University, was undertaken as one of several case studies to illuminate the politics in rich countries surrounding the provision of results-based finance to developing countries to reduce deforestation. The paper is intended to provide an analysis of how various interests and constituencies -- and in particular, experience with a flagship initiative in Indonesia -- have shaped Australian financial commitments to REDD+.

Frances Seymour
Senior Fellow
Center for Global Development

Jonah Busch
Research Fellow
Center for Global Development

Author Biographical Note

Robin Davies is the Associate Director of the Development Policy Centre, Crawford School of Public Policy, The Australian National University, and an Honorary Professorial Fellow of the University. He joined the Development Policy Centre in January 2012, after a twenty-year career with the Australian Agency for International Development. Robin headed Australia's development assistance operations in Indonesia from 2003 to 2006. He subsequently led the development and early implementation of Australia's global and regional climate change financing initiatives, including the Indonesia-Australia Forest Carbon Partnership. In this capacity, he participated in scoping and consultative missions to Central Kalimantan, and visited the Kalimantan Forests and Climate Partnership project zone, in 2007 and 2008. He represented Australia in the process leading to the establishment of the multilateral Climate Investment Funds, and co-chaired the Forest Investment Program sub-committee in its formative stages. He also served as a member of the Participants Committee of the Forest Carbon Partnership Facility, to which Australia was the first donor. Robin is based in Geneva, Switzerland, where he holds, concurrently with his role at the Development Policy Centre, a research Fellowship at the Graduate Institute of International and Development Studies. He is a member of the Centre for Global Development's Working Group on Performance-Based Payments to Reduce Tropical Deforestation.

Photo: Ministry of Forestry, Indonesia

List of acronyms

ACIAR	Australian Centre for International Agricultural Research
AP6	Asia-Pacific Partnership on Clean Development and Climate
APEC	Asia-Pacific Economic Cooperation
AusAID	Australian Agency for International Development
BAPPENAS	National Development Planning Agency (Indonesia)
BIG	Geospatial Information Agency (Indonesia)
BOS	Borneo Orangutan Survival Foundation
CIFOR	Centre for International Forestry Research
CKPP	Central Kalimantan Peatlands Project (Netherlands)
CO_2	Carbon dioxide
COP	Conference of the Parties (to the UNFCCC)
CPRS	Carbon Pollution Reduction Scheme (Australia)
EMRP	Ex-Mega Rice Project (Central Kalimantan, Indonesia)
FORDA	Forestry Research and Development Agency, Ministry of Forestry, Indonesia
FRIS	Forest Resource Information System (Indonesia)
FullCAM	Full Carbon Accounting Model (Australia)
G20	Group of Twenty
GHG	Greenhouse gas
GIFC	Global Initiative on Forests and Climate (Australia)
GIS	Geographic Information System
IAFCP	Indonesia-Australia Forest Carbon Partnership
IFCA	Indonesia Forest Carbon Alliance
IFCI	International Forest Carbon Initiative (Australia)
INCAS	Indonesian National Carbon Accounting System
IPCC	Inter-governmental Panel on Climate Change
KFCP	Kalimantan Forests and Climate Partnership
KPH	Forest Management Unit (Indonesia)
LAPAN	National Institute of Aeronautics and Space (Indonesia)
LiDAR	Light Detection and Ranging
LOGICA	Local Governance Innovations for Communities in Aceh (Australia)
MODIS	Moderate-resolution Imaging Spectroradiometer
MRV	Measurement, reporting and verification
NASA	National Aeronautics and Space Administration (United States)
NCAS	National Carbon Accounting System (Australia)
ODA	Official Development Assistance
PNPM	National Program for Community Empowerment (Indonesia)
REDD	Reducing Emissions for Deforestation and Forest Degradation
REL	Reference Emissions Level
RESA	Regional Environmental and Social Assessment
UKP4	President's Delivery Unit for Development Monitoring and Oversight (Indonesia)
UNFCCC	United Nations Framework Convention on Climate Change
WALHI	Friends of the Earth Indonesia
YPD	Yayasan Petak Danum (Central Kalimantan, Indonesia)

Executive Summary

The A$100 million Indonesia-Australia forest carbon partnership (IAFCP), launched with great fanfare by the two countries' leaders in 2008, quietly petered out in mid-2014, having expended some $65 million. A decision to terminate it had been taken by Australia's Labor government in early 2013, at which time its core elements were discontinued. The decision was taken abruptly, unilaterally, without public explanation and against the wishes of Indonesian governments at the national, provincial, district and village levels. Moreover, it pre-empted action that Labor's political opponents had signalled they would take later that same year if elected to government—as they were certain to be. The Labor government, apparently, had come to see IAFCP as such a liability that it had to be closed without delay.

That the fortunes of such a high-profile, large-scale development cooperation program could have fallen quite so low constitutes a mystery, which this paper seeks to unravel. The mystery is not who terminated it, but rather what led them to do it. In considering possible reasons, the emphasis in what follows is quite consciously on factors relating to policy, strategy and leadership, much more than on factors relating to program governance and management. There were indeed deficiencies in these latter areas, and quite substantial ones, but it is a working assumption of this paper that such deficiencies would not have arisen or been allowed to persist if IAFCP had operated with clearer objectives and stronger high-level leadership.

The Kalimantan Forests and Climate Partnership (KFCP), the single largest and most prominent element of IAFCP, was billed for a time as the world's most advanced large-scale REDD+[1] demonstration activity. It was conceived in 2007 as a practical project that aimed to reduce emissions through avoided deforestation, reforestation, sustainable forest management and the trialling of performance-based payments to forest stewards of various kinds. It had all the elements of a REDD+ 'demonstration activity', as subsequently called for at COP 13 (UNFCCC 2008: 8-9). In announcing KFCP in September 2007, the Australian government said that the project, estimated to cost A$100 million over four years, would reduce emissions by an estimated 700 million tonnes over 30 years. It would preserve 70,000 hectares of standing peat forest, re-flood 200,000 hectares of drained peatlands and plant up to 100 million trees in re-flooded areas.

[1] Reducing Emissions from Deforestation and Forest Degradation. The term 'REDD+' is used throughout this paper for simplicity, though it (or sometimes 'REDD-plus') did not supplant 'REDD' in climate change parlance until 2009. The '+' denotes measures that go beyond the avoidance of deforestation and forest degradation, namely the conservation and sustainable management of forests and the enhancement of forest carbon stocks in developing countries.

KFCP in the end disbursed somewhere toward A$40 million over the seven financial years to mid-2014. It achieved much more than might be assumed, delivering valuable research, improving understanding of the concept of REDD+ at all levels and developing a degree of institutional capacity to undertake future REDD+ programs. KFCP might also have achieved good local economic and development outcomes in its host district of Kapuas, though time will tell whether these are realised and sustained. However, it failed to achieve—in fact at no point attempted to achieve—its central objective, which was to trial the use of performance-based payments to effect quantified emission reductions. Some piecework payments were made for limited reforestation and canal-blocking work, but no funded actions were related to measured reductions, even via rough proxy measures. And no links, therefore, were established between payments to actors and measured reductions. Moreover, the only actors considered relevant were local villagers, despite the evident importance of the Kapuas district administration in planning and implementing certain emission reduction measures.

In announcing IAFCP in mid-2008, the Australian government said that the partnership would include 'financial and technical support to build Indonesia's capacity to develop and operate a sovereign forest carbon accounting system'. Accordingly, the second pillar of IAFCP, alongside KFCP, was a program of support for the development of the Indonesian National Carbon Accounting System (INCAS), to which approximately A$10 million was allocated. Though Australia's support for INCAS was by no means unsuccessful, it fell short in two significant respects. First, it did not come anywhere close to its original, ambitious aim of helping Indonesia achieve self-sufficiency in forest carbon accounting by mid-2013. This was in fact an unrealistic aim, but more progress could undoubtedly have been made with a more concentrated and demand-oriented effort. Second, the INCAS support program was barely and belatedly linked to, and indeed almost antagonistic toward, KFCP, implicitly reflecting a view that measurement and financing should operate at the national level or, at a stretch, the provincial level.

Some observers have described the recent history of REDD+ as a 'narrative of disappointment'. That is certainly an apt description of the history of IAFCP—and particularly of KFCP. IAFCP did not merely fall short of what now appear to be risible early ambitions; it fell short of anything resembling reasonable ambitions for a A$65 million, seven-year investment, despite having almost five years' worth of clear air. What factors account for IAFCP's disappointing progress up to 2012, and in particular that of KFCP, which rendered the partnership a target for pre-emptive termination by the Labor government? The blame cannot be sheeted home to an insufficiency of time, though a more generous allowance of time would certainly have been beneficial. Various

other factors that might seem relevant, including deficient program governance local disputes about land use rights in the KFCP zone, and slow progress in the international climate change negotiations were either of little significance or symptoms of more fundamental problems.

IAFCP was vulnerable to termination—when its policy and budgetary environment became less favourable—primarily because its developer, the Australian government, failed at the outset to state and pursue a single, clear objective, namely determining the feasibility, cost and sustainability of reducing emissions in a particular landscape through payment for performance. Loss of political sponsorship was a serious aggravating factor, but would have had less impact if the program had capitalised on its early political momentum.

In short, the heart of the problem was that the heart of IAFCP, that is, KFCP, suffered from an uncertainty of purpose. Its central purpose at conception was not merely to test the technical feasibility of reducing emissions from peatlands with one or another intervention; it was to trial and cost the use of financial incentives to achieve emission reductions. KFCP need not have been hostage to peat-carbon science or to national and global debates about REDD+ financial architecture. As project developer, the Australian government was in a position to adopt a rigorous payment-for-performance ethos from the outset, using proxies for emission reductions until peat-carbon science advanced far enough to allow more precise measurement. Outcomes which could not be directly linked to proxies, particularly relating to local institutional development and alternative livelihoods assistance, could have been conceived as purchases made by the relevant local actors themselves (communities and the district government), using either the proceeds from performance-based payments (dividends) or advances on same (investments).

It cannot be concluded from KFCP's case that there is no place for designed, guided, site-specific demonstration activities. It is unrealistic to expect that, once performance expectations are set and some readiness assistance provided, the production of avoided emissions will begin of its own accord. Ultimately progress in REDD+ will depend upon, not necessarily project-like investments as seen in connection with the Clean Development Mechanism of the Kyoto Protocol, but site-specific action across a series of sites. Investments in such action, whether by private investors, international public investors, or some level of government within the country concerned, will depend upon a prior understanding of what might realistically be achieved in a given landscape and at roughly what cost. Unless this is done, and seen to be done, no public or private investor

will place money at risk. Essentially, the demonstration process is one of price discovery. A public 'producer' of emission reductions has to demonstrate value for money; a private one wants to be sure there will be an acceptable margin above cost before investing.

As for the INCAS support program, carbon measurement systems are of limited value in the absence of information about the cost of avoiding emissions over the long term in specific, peopled landscapes. The program's relevance and impact would have been greatly enhanced if it had been linked directly to KFCP, with the aim of delivering sufficient measurement precision over time to refine initial emission reduction cost estimates produced on the basis of proxy measures. This linking of measurement with costed action would have constituted a distinctive contribution. At the same time, KFCP would have been relieved of the burden of supporting scientific work on emissions from peat swamp forests, creating space for a more purposive approach to the development of a proxy-based performance payment system.

In sum, IAFCP might have made more substantial and instructive progress, even in its relatively limited five-year window, if it had given over-riding priority to the delivery of proportional payments for roughly-measured emission reduction actions to both communities and the Kapuas district government, while pursuing in parallel a peat-carbon research agenda through the INCAS support program with a view to refining cost estimates over time. That it did not do so cannot reasonably be blamed upon the habits of the international aid 'industry'. More likely, it reflects an implicit view that demonstration projects are a sideshow or, worse, a distraction. This view, unfortunately, is most likely to be encountered among people from the climate change mitigation 'world'—and leaves entirely out of account the psychology of both REDD+ investors and those whose local actions might avoid emissions.

More generally, several lessons may be drawn from the IAFCP experience for any donor intending to act as REDD+ project developer in 'demonstration' mode. First, concentrate effort on the main game, which is to work out how to counter the specific emission drivers in particular landscapes with financial incentives for cooperative action, and what this actually costs in practice. Second, ensure the participation of governments, especially at sub-national levels, so that they experience some of the costs and benefits associated with of REDD+ interventions. Third, maintain policy neutrality with respect to national-level policy decisions on institutional and financing architecture. Fourth, vest responsibility for program development, financing and management in a single institution containing appropriately diverse but not warring perspectives. And fifth,

accept and be held accountable for high standards of transparency and accountability in order to ensure that investments have genuine demonstration value and also that they do not lose their way in the darkness.

Coda: March 2015

Australia's Coalition parties, who created KFCP and laid the foundations for the wider bilateral forest carbon partnership, were re-elected to office in September 2013 after six years in opposition. They remain committed to international action to slow tropical deforestation but, being now opposed to carbon pricing, no longer place this objective in a climate change mitigation context. Australia's aid program, which previously was growing at a rapid rate, has been cut ferociously, such that there is little likelihood of substantial Australian funding for regional forest conservation measures. The Coalition did, however, reverse its initial position on participation in the Green Climate Fund, unexpectedly announcing in December 2014 a contribution of A$200 million over four years, and highlighting the benefits of this contribution for the conservation and sustainable management of forests. It is highly unlikely there will ever be another IAFCP, but the possibility remains, at the time of writing, that the foundations laid by KFCP will support a program along the lines originally envisaged, with support from multilateral sources and Indonesia's own budget.

1. Overview

This paper is a 'murder mystery' in the sense that it seeks to interrogate possible reasons for the untimely demise of the Indonesia-Australia Forest Carbon Partnership (IAFCP). The mystery is not who terminated it, but rather what led them to do it. In considering reasons, the emphasis in what follows is quite consciously on factors relating to policy, strategy and leadership, much more than on factors relating to program management and governance. There were indeed deficiencies in these latter areas, quite substantial ones, but it is a working assumption of this paper—not an unassailable one, admittedly—that these deficiencies would not have arisen or been allowed to persist if IAFCP had operated with clearer objectives and more resolute leadership. Many things contributed to making IAFCP vulnerable to early termination; the question is which of these things were really fundamental.

The structure of the paper is as follows. It begins, in section 2, with a purely chronological account of IAFCP, complemented by the detailed timeline provided at Annex 1. Section 3 provides the political context for the various developments described in section 2. Section 4 is devoted to a full discussion of the objectives, achievements and unhappy fate of IAFCP's central element, the Kalimantan Forests and Climate Partnership (KFCP), and is complemented by a detailed account of KFCP's progress and shortcomings at Annex 2. Section 5 contains a similar but briefer discussion of IAFCP's second element, support for the Indonesian National Carbon Accounting System (INCAS), complemented by a detailed account of progress and shortcomings at Annex 3. Section 6 contains a broad discussion of IAFCP's governance and management arrangements. Section 7 concludes.

2. Key developments, 2007 to 2014

This section provides a brief historical survey of IAFCP in four phases (birth, growth, maturity and demise). The political context for the developments described is provided separately, in section 2, so as to allow a clearer presentation of the partnership's chronological development here. A schematic IAFCP timeline is provided at Table 1 and a more fully contextualised timeline at Annex 1.

Table 1: Schematic IAFCP timeline

2007	
March. A$200 million Global Initiative on Forests and Climate (GIFC) announced by Australian Prime Minister John Howard.	
	September. A$30 million Kalimantan Forests and Climate Partnership (KFCP) announced at the APEC meeting, Sydney.
December. Indonesia hosts UNFCCC COP13, Bali. Newly elected Rudd Labor government ratifies Kyoto Protocol.	
2008	
	March. KFCP design mission undertaken.
April. GIFC rebadged as the International Forest Carbon Initiative (IFCI).	
	June. Indonesia-Australia Forest Carbon Partnership (IAFCP) announced by Australian Prime Minister Rudd and Indonesian President Yudhoyono.
2009	
June. KFCP design process finalised and Australia creates A$8.4 million Kalimantan Forests and Climate Trust Fund at the World Bank.	
2010	
	March. A$30 million Sumatra Forest Carbon Partnership (SFCP) announced.
May. Rudd Labor government increases IFCI funding from A$200 million to A$273 million and extends it, including IAFCP, by one year to mid-2013.	
	December. Additional A$30 million allocated to IAFCP, bringing total to A$100 million.
2011	
February. Consortium of Central Kalimantan NGOs publishes open letter articulating concerns about KFCP implementation.	
2012	
	January. KFCP village agreements negotiated over preceding year take effect.
March. Australia advises Indonesia of intention not to proceed with SFCP.	
	July. World Bank's Regional Environmental and Social Assessment of KFCP completed.
2013	
February. Australia advises Indonesia of intention to extend IAFCP to mid-2014, with greatly reduced scope.	
	April. Australian foreign minister Bob Carr agrees to an IAFCP 'exit strategy'.
2014	
June. IAFCP formally ends.	

2.1 Birth (2007)

The Australian Coalition[2] government, under the eleven-year-old prime ministership of John Howard, surprised many observers by announcing a A$200 million Global Initiative on Forests and Climate (GIFC) in March 2007 (Howard, Downer & Turnbull 2007). The bulk of the funding for the initiative was allocated to what was then the Australian Agency for International Development (AusAID).[3] Australia's Department of Climate Change[4] was allocated just under one-fifth of it and was to be engaged in the development and approval of all major activities supported.

[2] In Australian politics there are two main forces: the centre-left Australian Labor Party, and a centre-right coalition of the Liberal Party of Australia and the National Party of Australia, generally referred to as the Coalition. The Australian Greens and several independents hold a small number of seats, almost exclusively in the Senate (the upper house of Australia's bicameral parliament).

[3] This agency was abolished by the incoming Coalition government with effect from October 2013, and its staff and resources folded into the Australian Department of Foreign Affairs and Trade.

[4] This department came into existence with the election of the Rudd Labor government, more than six months after the announcement of GIFC. Its domestic and multilateral roles had previously been performed by Australia's environment and foreign affairs departments, respectively. In March 2010 it became the

GIFC's aims were ambitious, indeed so much so as to seem immediately implausible. The aspiration was to build a global coalition of like-minded nations willing to take policy and practical measures to reduce emissions from deforestation, including the provision of 'real financial incentives to countries and communities to encourage sustainable use of forests and reduce destruction of forests'. More specifically, GIFC's objectives were articulated as follows.

> *The Global Initiative on Forests and Climate … aims to facilitate significant and cost effective reductions in greenhouse gas emissions in developing countries through reductions in deforestation, encouraging reforestation, and the promotion of sustainable forest management. … Major components of this initiative include:*
>
> - *Developing and implementing methodological and technical systems, and building capacity, to underpin forest and forest carbon monitoring, assessment and inventories in partner countries. …*
> - *Developing improved global understanding (and coordination) of effective methods to reduce emissions through avoided deforestation and encourage reforestation including through incentive-based pilot approaches. (Australian Government 2007a)*

Through GIFC, Australia would lead in the development of a global carbon monitoring system using remote sensing technology, on the model of Australia's national carbon accounting system for land-based emissions (Downer & Turnbull 2007a). To this end, new satellite receiving stations would be built in northern Australia to facilitate the collection and international sharing of high-resolution data on land-cover change across Southeast Asia and the Pacific.

The Minister for the Environment, Malcolm Turnbull, quickly visited Indonesia in early April 2007 to brief Indonesian ministers, including the Minister for Forestry, M.S. Kaban, on Australia's plans, and to communicate the centrality of Indonesia in those plans. Subsequently, at a High-Level Meeting on Forests and Climate on 23 July 2007 in Sydney, Turnbull and Australia's foreign minister, Alexander Downer, announced an initial A$10 million package of support to Indonesia under GIFC (Downer & Turnbull 2007b). This comprised A$2 million to help build a national carbon accounting system, A$4 million to support, in conjunction with other donors, the development of a national policy and institutional framework for REDD+, A$3 million for the prevention and management of peatland fires through remote sensing, and A$1 million for program start-up costs.

Department of Climate Change and Energy Efficiency, and in March 2013 was folded into an omnibus department with responsibility for industry policy and various other matters. Following the change of government in September 2013, climate change-related responsibilities were redistributed between the foreign ministry and the environment department. For simplicity, this paper refers to 'the Department of Climate Change' throughout.

The A$30 million Kalimantan Forests and Climate Partnership (KFCP) was announced in September 2007, at a high-profile event at that year's Asia-Pacific Economic Cooperation (APEC) meeting, hosted by Australia in Sydney (Downer & Turnbull 2007c). John Howard and the President of Indonesia, Susilo Bambang Yudhoyono, were present. The latter spoke at some length about the importance of reducing emissions from the peatlands of Kalimantan, the 'burning island'. KFCP was described in very broad-brush terms as a peatland rehabilitation and reforestation project that would avoid or sequester some 700 million tonnes of carbon dioxide (CO_2)-equivalent emissions over a 30-year period (for comparison, Australia's annual emissions at that point were around 550 million tonnes). In order to achieve this target, KFCP would seek to attract up to A$70 million in additional financing from other sources, including private sources. The Australian mining company BHP Billiton was a party to the announcement, indicating that it would fund activities in Kalimantan within the framework of KFCP, though the size and nature of its contribution was unspecified.

2.2 Growth (2008 and 2009)

The Howard Coalition government lost office to the Australian Labor Party shortly after the APEC meeting, at the election of November 2007. Kevin Rudd was installed as Prime Minister, Stephen Smith as Minister for Foreign Affairs and Penny Wong as Minister for Climate Change and Water. Former Coalition environment minister Malcolm Turnbull became leader of the Coalition in opposition.

GIFC was briefly scrutinised by the incoming Labor government, then rebadged in March 2008 as the International Forest Carbon Initiative (IFCI). While this involved no changes of any consequence, the overall objective of the initiative was rearticulated with a stronger emphasis on advancing United Nations Framework Convention on Climate Change (UNFCCC) discussions on the establishment of a global REDD+ mechanism, as follows.

> *Australia's … International Forest Carbon Initiative is a key contribution to global action on REDD+. … Through the initiative, … Australia is supporting global efforts to establish a REDD+ mechanism by:*
>
> - *building the capacity and 'REDD+ readiness' of developing countries to enable participation in a future REDD+ mechanism;*
> - *helping to shape a robust global REDD+ architecture, including credible systems for measurement, reporting and verification; and*
> - *demonstrating REDD+ payment mechanisms, and promoting sustainable market-based approaches to REDD+ that can provide fair and effective benefits for communities. (Department of Climate Change 2010)*

While the objective of the Coalition government's GIFC was consistent with the reformulated objective above, including in its reference to 'incentive-based pilot approaches', GIFC had been positioned as a plurilateral arrangement that sat outside the UNFCCC framework. It was in that respect similar to the Asia-Pacific Partnership on Clean Development and Climate (AP6), under which Australia and five other countries pursued 'practical action to develop and deploy low-emission technologies', recognising that 'climate change actions should complement, and not frustrate, economic development and energy security goals' (Australian Government 2007b: 161).

The IFCI-funded Indonesia-Australia Forest Carbon Partnership (IAFCP) was launched in June 2008 as an over-arching mechanism under which Australia would support a range of REDD+-related initiatives in Indonesia (Rudd 2008). It encompassed existing support for KFCP, the Indonesian National Carbon Accounting System (INCAS) and REDD+ policy development, as well as an intended second REDD+ demonstration activity in the province of Jambi—the Sumatra Forest Carbon Partnership (Wong 2010).[5] The place of IAFCP in the Australia-Indonesia bilateral aid relationship was articulated in the Australia-Indonesia Partnership Country Strategy 2008-13, whose first pillar, 'Sustainable Growth and Economic Management', included delivery of 'improved natural resource management and response to climate change' (Australian Government 2008).

Australia and several other donors[6], together with the Government of Indonesia, formed the Indonesia Forest Carbon Alliance (IFCA) and produced a foundational report on REDD+ in Indonesia. Released in August 2008, the 'IFCA Consolidation Report' laid out the process by which Indonesia could prepare for participation in a global forest carbon market and the steps that pilot projects needed to take in order to test the REDD+ 'supply chain' (Government of Indonesia 2008).

The formal design process for KFCP was completed by mid-2009, though some discrete preparatory activities had already begun well before that time. The A$30 million Sumatra Forest Carbon Partnership was negotiated in general terms during 2008 and 2009 and agreement was reached to proceed with it late in 2009, though no announcement was

[5] Indonesia, or organisations based there, also received IFCI support for various REDD+-related activities outside the framework of IAFCP. These included activities funded through a regional 'pilot concept development' grants program for NGOs, a regional Asia-Pacific Forestry Skills Capacity Building Program implemented by Australia's Department of Agriculture, Fisheries and Forestry, and grants to the Bogor-based Centre for International Forestry Research to support a global comparative study of REDD+ demonstration activities.

[6] The United Kingdom, Germany, the World Bank and The Program on Forests (PROFOR), a multi-donor partnership whose secretariat is housed at the World Bank.

made until March 2010. This took the total commitment of assistance under the IAFCP umbrella to A$70 million.

In June 2009, Australia capitalised a country-specific trust fund at the World Bank with a contribution of A$8.4 million from the KFCP budget, intending that in due course it would be the principal source of incentive payments to communities in the KFCP project zone. This, the Kalimantan Forests and Climate Trust Fund, remained dormant for a long period of time pending completion of an environmental management and monitoring plan required by the Indonesian government and then a Regional Environmental and Social Assessment required by the World Bank. The latter assessment was eventually finalised in mid-2012 (IAFCP 2012).

In September 2009, President Yudhoyono told G20 leaders at their summit in Pittsburgh that by 2020 Indonesia would reduce emissions by 26 per cent under its own steam, and by up to 41 per cent with external assistance, with most of the reductions expected to be supplied by REDD+.

2.3 Maturity (2010 and 2011)

In its 2010-11 budget, delivered in May 2010, the Rudd Labor government increased the overall IFCI funding allocation from A$200 million to A$273 million and extended the duration of the initiative by one year to mid-2013. Soon afterward, in June 2010, it announced a A$599 million global 'fast-start' climate change financing commitment for the three-year period commencing 1 July 2010. This included A$146 million from the expanded IFCI allocation (being the portion of that allocation expected to be spent within the fast-start period) and, within that, a further allocation of A$30 million to IAFCP—comprising an additional A$8 million for INCAS, A$17 million for KFCP and A$5 million for policy support. Total commitments under IAFCP now stood at A$100 million, including A$47 million for KFCP.

The governments of Indonesia and Norway signed a 'Letter of Intent' in May 2010 on a national-level approach to REDD+ (Governments of Indonesia and Norway 2010). Norway committed up to US$1 billion in funding, conditional on a range of policy and institutional measures—most notably a moratorium on the issuance of new licenses for primary forest and peatland conversion[7]—and, ultimately, emission reduction outcomes. A REDD+ Task Force led by the President's Delivery Unit for Development Monitoring and Oversight (UKP4) was tasked with completing a REDD+ strategy,

[7] This was put in place in May 2011 for an initial two years, then renewed in May 2013 for a further two years. The area affected by the moratorium is estimated to be 43 million hectares.

establishing a REDD+ Agency, developing a strategy and institution for REDD+ measurement, reporting and verification (MRV), designing a funding instrument and selecting and supporting a province-wide REDD+ pilot. Central Kalimantan, KFCP's host province, was subsequently selected as the pilot province for the purposes of the Letter of Intent.

No additional funding allocations to IAFCP were made after December 2010. From that point forward, ministerial interest in the partnership abated considerably on both the Australian and Indonesian sides. The focus of the relevant government agencies on both sides now shifted more fully to the slow and complex business of implementation.

In the case of KFCP, implementation mainly involved scientific work on the measurement of peatland carbon stocks and flows, preparations for canal-blocking, the negotiation of work agreements with villages in the project zone[8], some reforestation and the development of 'livelihoods' programs. In the case of INCAS, the principal items of work were the acquisition, processing and transfer of Landsat satellite data, the installation of infrastructure and software for data storage and manipulation, the preparation of historical land-cover change maps and, later, the preparation of simple and more detailed carbon accounts for the province of Central Kalimantan.

In March 2011, a few months after the mid-point of IAFCP's intended five-year lifespan, an AusAID-commissioned Independent Progress Review[9] of the partnership confirmed the relevance of its objectives, found that its two extant elements, INCAS and KFCP, had made good but slower-than-expected progress, and recommended not proceeding with the second demonstration activity in Jambi. The latter recommendation was made on the basis that the promised funding could not be applied effectively within the remaining time available (assuming no further funding was made available beyond mid-2013), and that there were already a great many demonstration activities under implementation in Indonesia—with limited evidence of impact (IAFCP 2011: 19).

2.4 Demise (2012 to 2014)

During the latter part of 2011 and the first half of 2012, IAFCP's momentum slowed markedly and, at a point that is hard to discern precisely, reversed direction. In January 2012, the government of Australia advised the government of Indonesia of its decision not to proceed with the Sumatra demonstration activity, in line with the

[8] The work agreements were for the production of seedlings for reforestation and of structures for canal blocking, as well as for labour involved in the blocking of *tatas* (small canals).

[9] The review was conducted by consultants under contract to the Australian government, so was not independent in any strong sense.

recommendations of the Independent Progress Review. In isolation, this decision could have been interpreted merely as an attempt to consolidate effort in favour of KFCP and INCAS. That interpretation might have been supported by the observation that AusAID, in the second quarter of 2012, was taking steps to establish a long-delayed benefit-sharing mechanism, and related expert group, for KFCP.

However, KFCP's work on benefit-sharing did not proceed far before stalling. By the end of 2012, AusAID had decided to close down IAFCP as quickly as it could. It obtained approval from the foreign minister, Bob Carr, for an 'exit strategy' in April 2013.[10] By this time, there was no longer a standalone Department of Climate Change.[11] The minister with responsibility for climate change policy, Mark Butler, had little power to oppose Carr's decision and no control over budgetary resources for REDD+ beyond mid-2013. In fact, AusAID's submission to Carr said that Butler's senior minister, Greg Combet, was being 'separately briefed' on the proposed exit strategy, but did not say his approval was being sought (Department of Foreign Affairs and Trade 2013: 134). This was a departure from previous practice, which had been to obtain parallel approval of all major IFCI-related policy and funding decisions from both the foreign and climate change ministers.

Unusually, the Australian embassy in Jakarta advised the government of Indonesia two months before the IAFCP exit strategy had been recommended to and approved by foreign minister Carr that IAFCP was being wound down and would close in mid-2014 (Department of Foreign Affairs and Trade 2013: 74). In particular, the embassy's advice said that KFCP would no longer proceed with the canal-blocking activities that were central to its design and for which extensive preparatory work had been undertaken, and strongly hinted that the monies held in the World Bank-managed Kalimantan Forests and Climate Trust Fund for results-based financing would no longer be available for that purpose. (Those funds were subsequently redirected to Indonesia's National Program for Community Empowerment (PNPM Mandiri) for purposes unrelated to REDD+.) The bilateral Subsidiary Agreement governing IAFCP was revised in August 2013 to reflect the reduced scope of the program, together with its one-year extension to mid-2014. The total Australian funding allocation to the partnership was, at that point, formally reduced from A$100 million to A$65 million.

[10] Detailed, though heavily redacted, documentation of some internal deliberations on the termination of IAFCP was made public in December 2013 in response to a request made by an unknown person under Australia's *Freedom of Information Act 1982* (Department of Foreign Affairs and Trade 2013).

[11] As noted in footnote 4, it had been folded into the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education in March 2013.

The Australian government's final fast-start climate change financing report indicates that its actual expenditure on purposes related to REDD+ in Indonesia during the three-year fast-start period, that is from 1 July 2010 to 30 June 2013[12], was about A$45 million (Australian Government 2013a: 9). From the public record, it is not possible to tell whether total IAFCP expenditure prior to and following the fast-start period reached A$20 million, as implied by the fast-start expenditure figure taken together with the revised total allocation mentioned at the end of the previous paragraph.[13] However, financial information released under Australia's Freedom of Information legislation in 2013 indicates that IAFCP had spent A$44 million to mid-2012 and that, as at early 2013, was expected to achieve full expenditure of its revised funding envelope of A$65 million (Department of Foreign Affairs and Trade 2013: 107).

There is no indication that the Office of Development Effectiveness of Australia's Department of Foreign Affairs and Trade, or its Indonesia bilateral desk, intends to undertake a post-completion evaluation of IAFCP as a whole, or of KFCP or the INCAS support program individually. Various IAFCP working papers, technical papers and lessons-learned documents were progressively released in course of 2013 and 2014 via the web site of the Forestry Research and Development Agency (FORDA) of the Indonesian Ministry of Forestry[14] but are not available via web sites managed by Australia's foreign or environment ministries.[15]

Indonesian governments at all levels—national, provincial, district and also village—had increasingly invested political capital in IAFCP's core element, KFCP, and could only have seen its untimely and unilateral termination as deeply disappointing. No diplomatic incident is known to have occurred and no official protests were made in the public domain. However, the governor of Central Kalimantan reportedly made representations to the Australian government about the program's discontinuation. Moreover, there will have been a high level of justifiable frustration that the Australian government was unwilling to allow the continuation of KFCP under national management using the funds placed in trust with the World Bank for performance-based payments.

---

[12] Given that its financial year runs from July to June, Australia defined the fast-start period as 1 July 2010 to 30 June 2013 for accountability purposes. For most other donors, the period was defined as 1 January 2010 to 31 December 2012.

[13] Activity-level Australian aid data provided to the International Aid Transparency Initiative is of no help. Most expenditure under IAFCP appears not to have been reported.

[14] See http://www.forda-mof.org/index.php/content/publikasi/kategori/19 for all such documents and, in particular, IAFCP 2014b.

[15] IAFCP's web site, with links to publications released as at late June 2014, has been archived by the National Library of Australia in line with its statutory responsibilities and may be accessed at http://pandora.nla.gov.au/pan/145800/20140623-0017/www.iafcp.or.id/index.html.

3. Political context

3.1 Motive

While, as noted above, the announcement of GIFC took many observers by surprise, the Howard Coalition government had a strong motive for establishing the initiative. It had moved in 2006, in a departure from previous policy, to examine the merits of introducing a domestic carbon pricing regime. A Prime Ministerial Task Group on Emissions Trading was formed and published its final report in the second quarter of 2007, not long after the announcement of GIFC. The Task Group recommended that the government introduce a comprehensive emissions trading scheme, one design feature of which should be 'recognition of a wide range of credible carbon offset regimes, domestically and internationally' (Australian Government 2007: 12) so as to achieve greenhouse gas abatement at least cost. The Task Group said:

> *By establishing and demonstrating sink and offset methodologies that work and are relevant to a range of global circumstances, Australia would be well positioned to influence the evolution of international rules in this area in a direction that would provide a positive incentive for engagement by developing countries.*
>
> *Of particular importance would be inclusion of international trade in avoided deforestation. The development of rigorous methodologies and governance in this area should be a priority. The Government's recently announced 'Global Initiative on Forests and Climate' could assist in such an approach. (Australian Government 2007: 111)*

Australia had a clear need for affordable international emission reduction units to make any domestic emissions trading scheme feasible. Hence there was a general desire to foster the development of low-cost sources of such units, while ensuring their credibility and thus their likely negotiability in future global or regional carbon markets. The view that forest carbon credits might be produced particularly cheaply had been reinforced by the Stern Review's cost estimates in 2006, which had put the cost per tonne at less than US$5 and perhaps as low as US$1 (UK Government 2006: 216), by comparison with a previously assumed long-term average carbon price above US$20.

In addition, strong domestic concerns about the importation of illegal timber, and its impact on domestic forest industries, inclined the Australian government toward international action to reduce deforestation. Moreover, the Coalition government was at that time keen to eliminate any space for the Labor opposition to differentiate itself, in the lead-up to an election in which preferences from the Australian Greens might prove decisive, on environment and climate change policy.

It should further be noted that Australia had benefited greatly from Article 3.7 of the Kyoto Protocol, added at its insistence and often described as the 'Australia clause',

which accorded recognition to emission reductions achieved through reductions in rates of land clearing relative to 1990 levels[16]. Australia had developed a low-cost, remote sensing-based system for detecting changes in land-based emissions: the National Carbon Accounting System (NCAS). The government was strongly inclined, therefore, to pursue recognition of avoided emissions from the land sector offshore, in the context of a global emissions trading scheme, and to promote NCAS as a model measurement system.[17]

There was perhaps also an unstated hope that, if Australia were at the forefront of countries helping its neighbouring countries to produce credible forest carbon credits, then it might be able to negotiate the purchase of such credits on a government-to-government basis at relatively favourable terms, whether in terms of price or reliability of supply, or both.

In addition, Australia's government was by that time a particularly long-serving one that was looking to its legacy, and increasingly interested, as is common with mature governments, in international policy. Several figures within the government were attracted to visionary action to protect and restore tropical rainforests, described by environment minister Turnbull at GIFC's launch as 'the lungs of the earth'[18]. The foreign minister, Downer, had returned from an early-2007 visit to Germany, and discussions with the German minister for international development, Heidemarie Wieczorek-Zeul, determined to launch a major tropical reforestation initiative in Southeast Asia. At the same time, Turnbull had been struck forcefully by the economics of REDD+ as presented in the Stern Review, and was determined to launch, not a reforestation initiative, but an avoided deforestation initiative—without, at first, seeing this as part of Australia's overseas aid effort (the latter being Downer's domain).

It fell largely to Greg Hunt, who was appointed Downer's parliamentary secretary in January 2007 and who had previously been Turnbull's parliamentary secretary, to fuse

[16] Under the Howard government, Australia had signed the Kyoto Protocol but subsequently, with the US, refused to ratify it. Nevertheless, Australia adopted the emissions cap that would have applied to it under the Protocol, namely to hold emissions to 108 per cent of 1990 levels in the 2008-2012 period. The second sentence of article 3.7 reads, 'Those Parties included in Annex B for whom land-use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals by sinks in 1990 from land-use change for the purposes of calculating their assigned amount.' Australia's emissions from land clearing were particularly high in 1990.

[17] It should also be noted that the appropriateness of NCAS for estimating land-based emissions in the context of UNFCCC reporting obligations was queried by international experts from time to time, for example in the context of UNFCCC reviews of Australia's annual greenhouse gas inventory submissions. The adoption of NCAS or something similar in Indonesia and elsewhere might have tended to build a wider community of support for reliance on such systems.

[18] This was originally Franklin D. Roosevelt's simile.

Downer and Turnbull's ideas into GIFC.[19] Hunt was a former McKinsey & Company analyst who had co-authored an Honours-level university thesis on emissions trading. He too, with some urging from the prominent Australian environmentalist Tim Flannery, saw the initiative in visionary terms, likening it to President Theodore Roosevelt's actions in proclaiming a series of national parks in the first decade of the twentieth century. (Hunt was appointed environment minister following the return to office of the Coalition to government in September 2013. Ironically, it was his task to dismantle the emissions trading scheme put in place by the previous government.)

It should be noted that the motives of the Rudd Labor government elected in 2013 differed little from those of the Howard Coalition government in this area, except that the Rudd government, having ratified the Kyoto Protocol almost immediately after coming to office, was able to be more explicit about placing its actions on REDD+ in the context of the ongoing UNFCCC negotiations. Rudd, while still in opposition in April 2007, had commissioned an eminent Australian economist, Professor Ross Garnaut, to undertake an Australian equivalent of the Stern Review. The Garnaut Climate Change Review produced an interim report in February 2008 and a final report in September 2008. Garnaut strongly validated the aims of the former GIFC, and the current IFCI:

> *Ultimately, it is desirable for both Indonesia and Papua New Guinea to be linked to Australia's emissions trading scheme and to be able to trade any reduction in emissions below their national target levels with the Australian Government or market participants. This would benefit both sides: the financial flows would benefit Indonesia and Papua New Guinea, while Australia would benefit from access to low-cost abatement options. …*
>
> *For such a link to become a reality, important preparatory work has to be completed. Work in several of these areas is already under way under Australia's International Forest Carbon Initiative. (Garnaut 2008: 238)*

3.2 Means

Australia also had the means to support cooperation. Its overseas aid budget had begun to rise steeply following a commitment in 2005 by John Howard that Australia's aid would double, from approximately A$2 billion to A$4 billion per annum, between 2005 and 2010. Though the government changed in late 2007, Australia's aid program continued to rise at the promised rate, owing at least in part to the incoming Rudd government's desire to secure a non-permanent seat on the UN Security Council for the 2013-14 biennium. Between 2007-08, the year in which GIFC funding commenced, and

[19] In Australian politics, a parliamentary secretary is a parliamentarian, most often a minister-in-waiting, appointed to assist a Cabinet-level minister to discharge his or her responsibilities.

2012-13, the year in which IFCI was to terminate, Australia's aid increased from A$3.6 billion to A$5 billion in constant 2010-11 prices—or by about 40 per cent in real terms.

As noted above, Australian public sector agencies had developed a National Carbon Accounting System (NCAS) that employed remote sensing technology to determine changes in net emissions from the land sector with—they believed—acceptable precision, and saw opportunities to make this technology available internationally as a public good. This system, developed through collaboration between the Department of Climate Change, the Sustainable Agriculture Flagship of the Commonwealth Scientific and Industrial Research Organisation and the Australian National University, was awarded the Australian Museum Eureka Prize for Environmental Research in 2008.

NCAS was the subject of a partnership announced between the Australian government and the Clinton Climate Initiative during a visit to Australia by the Clinton Foundation's Ira Magaziner in February 2008. In announcing it, climate change minister Penny Wong said, 'following a global search of forest carbon measurement systems, the Clinton Climate Initiative selected Australia's National Carbon Accounting System … as the platform for a global roll-out in developing countries' (Wong 2008). It should be recorded, however, that no such rolling out is known to have occurred, and that the partnership was forgotten no less quickly than the previous government's Global Carbon Monitoring System had been (see Annex C on the latter initiative).

3.3 Opportunity

Australia also had, in Indonesia, a rare opportunity to put its plans into action. Australia's bilateral relationship with Indonesia was at a high point in the period from 2005 to about 2009, before souring in early 2011 as the result of a serious trade dispute.[20] After a faltering start on the international stage, and a troubled relationship with his Indonesian counterparts at the time of the Timor-Leste crisis (1999-2000), John Howard had established a cordial and practical, if not exactly warm, relationship with President Megawati Sukarnoputri and subsequently with President Susilo Bambang Yudhoyono. Following the earthquake and tsunami that devastated Aceh and North Sumatra on Boxing Day in 2004, the Australian government had pledged an unprecedented A$1 billion dollars in aid to Indonesia, to be provided over the period 2005-09. While hundreds of Australians had been killed in terrorist bombing attacks on Indonesian soil, particularly in Bali (2002 and 2005), and the Australian embassy in Jakarta had itself been bombed in September 2004, these events had the effect of bringing the two

[20] The dispute was caused by the Australian government's abrupt banning of exports of live cattle from Australia to Indonesia, following revelations of cruelty in Indonesian slaughterhouses.

governments closer together, particularly through cooperation between the Australian Federal Police and the Indonesian National Police.

Indonesia was to host the Thirteenth Conference of the Parties to the UNFCCC (COP 13) in Bali at the end of 2007 and was looking for a concrete outcome in an area in which it could take an international lead. It had released a National Climate Change Action Plan in February 2007 which specifically called for international support to achieve reduced rates of deforestation and forest degradation, including through a global REDD+ mechanism and bilateral support for pilot activities (Government of Indonesia 2007: 52). Moreover, Indonesia was a Group of Twenty (G20) member country at a time (2008 and 2009) when the G20 was transitioning to become a leaders' forum, displacing the G8 and expanding its agenda to take in climate change. As custodian of the world's third-largest area of rainforest and largest area of tropical peatlands, and source of some 30 per cent of global land-based emissions, Indonesia was also central in the Coalition of Rainforest Nations, which was gearing up to advocate for action on REDD+ in Bali. Domestic and international concerns about rampant deforestation and, in particular, illegal logging, were also relevant, as were regional concerns about trans-boundary haze resulting from uncontrolled peat fires in Sumatra and Kalimantan. Owing to an El Niño event, fires had been especially severe in 2006, with haze reaching as far as Korea.

Added to the above was the fact that Malcolm Turnbull, in visiting Indonesia as environment minister in early 2007, was able to engage credibly with Indonesia's then forestry minister, M.S. Kaban, in part because Turnbull, in a former career as an investment banker, had been involved in a forestry enterprise in Solomon Islands. Kaban was also from the commercial world, having owned plantations.[21]

Overall, it would be hard to imagine a more fortuitous set of circumstances for the formation of a cooperative bilateral relationship on REDD+. Both Australia and Indonesia were eager to show international leadership in this area, and had good reason to do so. Their prior relationship was in good shape, and financial resources and technical capacities were available. The change of government on the Australian side in 2007 did nothing to change the situation. Indeed, Kevin Rudd's first act on the international stage was to announce at COP 13 that Australia would finally break ranks with the US and ratify the Kyoto Protocol, and in mid-2008 he and President Susilo Bambang Yudhoyono made the forest carbon partnership the centrepiece of their discussions during Rudd's first visit to Jakarta as Prime Minister.

[21] More recently, in February 2014, Kaban was subjected to a travel ban by Indonesia's Corruption Eradication Commission in connection with its investigation into a case of alleged bribery dating back to 2007.

3.4 Bipartisanship lost

By early 2010, IAFCP's political environment had become markedly less hospitable as a result of developments on the Australian side. Simmering policy divisions within the Coalition opposition had deepened and Malcolm Turnbull had been dumped as leader, owing mainly to his supportive position on the government's proposed emissions trading scheme, the Carbon Pollution Reduction Scheme (CPRS). The Australian Greens and the opposition together outnumbered the government in the Senate. The Greens favoured stronger action and the Coalition no action, so these parties joined forces to reject legislation to establish the CPRS in early December 2009.

The following month, Kevin Rudd, unsurprisingly to most observers, failed to have any impact on the outcome of COP 15 in Copenhagen.[22] He subsequently shelved his emissions trading scheme in April 2010, ostensibly for three years. This decision was politically crippling for him and—together with several other policy and management mis-steps—ultimately fatal. He was deposed in June 2010 and replaced by his deputy, Julia Gillard, who quickly called and won a federal election. Following that election, Gillard reinstated an emissions trading scheme with effect from mid-2012, though with a three-year fixed price period which made it equivalent initially to a carbon tax, and no international linking until the end of that period. As Gillard had ruled out a carbon tax during the election campaign, which saw Labor re-elected by a very narrow margin and with the support of Greens and independents, this provided a central plank of the opposition's 2013 election campaign: 'axe the tax, stop the boats, end the waste, repay the debt'.

By late 2012, it was widely believed that the Labor Party could not retain government at the federal election due in late 2013. The Coalition, led by Tony Abbott, was implacably opposed to carbon pricing domestically. Action taken domestically would be 'direct action' and involve neither a carbon tax nor an emissions trading scheme but rather a public fund that would give domestic firms positive incentives to reduce their emissions. Consequently, there would be no need for international units. (The previous government's unconditional commitment to reduce Australia's emissions by five per cent by 2020, relative to a 2000 baseline, was, however, maintained, despite the fact that the previous government had judged it impossible to meet this target without reliance on internationally purchased units.) The use of aid funds for climate change mitigation in

[22] One of the few concrete, positive outcomes of COP 15 was the announcement that Australia, France, Japan, Norway, the United Kingdom and the United States would collectively provide US$3.5 billion in 'fast-start' financing for REDD+. Australia's contribution, drawn from the IFCI budget, was US$120 million. Subsequent pledges from Denmark, Finland, Germany, Slovenia, Spain, and Sweden increased the total commitment to US$4 billion, with most of the additional funding (US$438 million) coming from Germany.

developing countries, including for REDD+ programs, was seemingly perceived as support for carbon-market development, and opposed on that basis. The fact that much of it could be classified as 'direct action' was not recognised, or at least not acknowledged.[23]

The 2010 convulsions within the Labor government did not immediately compromise IFCI or reduce Australia's commitment to international action on climate change. At climate talks in Bonn ten days before Rudd was toppled, the government announced a A$599 million global fast-start climate financing package in which REDD+-related assistance figured prominently—accounting for about 25 per cent of total funding and about 50 per cent of mitigation funding. The Gillard Labor government adhered to this pledge. However, from that point forward, there was less appetite for visionary action on climate change, Australian global leadership and ambitious bilateral climate change partnerships. There was instead an increasing tendency to allocate funds to straightforward, multi-purpose adaptation programs or else multilateral climate change initiatives. In 2010 and 2011, the 'mature' years, IAFCP was essentially on autopilot, lacking firm direction and being carried forward only by its own diminishing momentum. It had become a stranded asset.

3.5 The long-open window

Circumstances were especially propitious for the conception and implementation of IAFCP from early 2008 through to late 2010, a period of some three full years. In addition, the window for further action, somewhat below the radar, remained well open for a further two years or so, until the latter part of 2012—in other words, for almost the full lifespan of the Coalition government's GIFC as originally conceived.

It is important to stress the above point because it might be tempting to view IAFCP as merely a victim of political change and policy reversal. Certainly, by some time in late 2012 it was impossible to avoid the conclusion that IAFCP was destined for termination under an Abbott Coalition government. The probability of a change of government was extraordinarily high, and it was the clearly stated policy of the Coalition to oppose both carbon pricing and the use of aid for action on climate change internationally. Thus, from late 2012, no rational bureaucracy would have invested much effort in IAFCP.

What is remarkable, though, is that the Labor government moved pre-emptively to end IAFCP. One might have expected the government to defer such action to its political opponents, perhaps with some glee given the likely diplomatic consequences and the fact

[23] The Coalition government eventually reversed its policy on this point. See the Coda in section 7.

that its core element, KFCP, had been a creature of the Coalition. Certainly Australian government officials might have preferred to end the partnership sooner rather than later, if it was perceived to be problematic and doomed, but Labor government ministers had no obvious incentive to do so. The Labor government, it must be assumed, viewed IAFCP not merely as an underperforming program but as a net liability going into the 2013 election year—or else was simply passive in the face of a bureaucracy determined to clear the decks before the election. The latter interpretation is somewhat supported by the fact that the Australian embassy in Jakarta had, as noted in section 2.4, already told the Indonesian government of AusAID's intention to terminate IAFCP two months before obtaining ministerial approval to do so.

In short, the mystery is not whether IAFCP would have ended prematurely, but why it did not achieve enough in the time available to it to avoid termination by a government that might have been expected to defer such action to its opponents. The window for action had been open long enough for the program to achieve—not what the Coalition had hubristically claimed it would achieve in launching it in 2007—but much more than it did.

4. Kalimantan Forests and Climate Partnership

This section provides an examination of KFCP, the single largest and most prominent element of IAFCP. Billed for a time as the world's most advanced large-scale REDD+ demonstration activity, KFCP was allocated A$47 million of the A$100 million IAFCP funding envelope and ultimately consumed around two-thirds of the A$65 million or so that IAFCP actually spent.

4.1 Context

KFCP was conceived under the Howard Coalition government in 2007 as a large-scale, practical project that aimed to reduce emissions through avoided deforestation, reforestation, sustainable forest management and the trialling of performance-based payments to forest stewards of various kinds. It had all the elements of a REDD+ 'demonstration activity', as subsequently called for at COP 13 in December 2007 (UNFCCC 2008: 8-9). After that meeting, and the change of government in Australia that immediately preceded it, KFCP was explicitly described as a REDD+ demonstration activity that was being undertaken in accordance with the Bali Action Plan. This was, however, essentially the application of a new label. Nothing had fundamentally altered in the way that the project itself was conceived.

Some observers, and even some people involved in the implementation of the project in its later years, formed the impression that KFCP was originally conceived as a reforestation project, and later modified so as to become an avoided deforestation project. There was in fact considerable emphasis on reforestation in the communication of the project's objectives but this was a concession to Alexander Downer's original, pre-GIFC conception of the project, and his view that it needed to show tangible results.[24] Downer's conception, however, was not dominant in KFCP's design, which gave highest priority to avoided emissions, and treated reforestation more as a peatland stabilisation strategy than as a carbon sequestration strategy (IAFCP 2009a: 29). In a deep-peat environment, the gains from sequestration were clearly always going to be very minor by comparison with the gains from avoiding emissions. Moreover, an interest in payment-for-performance approaches was present from the outset. The media release announcing GIFC, some time before KFCP was conceived, said GFIC would 'pilot approaches to providing real financial incentives to countries and communities to encourage sustainable use … and reduce destruction of forests' (Howard, Downer & Turnbull 2007).

A second misconception that emerged after COP 13 was that KFCP was ill suited to function as a REDD+ demonstration activity because it involved working in a landscape that was already in large part deforested (around 35,000 hectares) or in varying degrees degraded (around 50,000 hectares). Within the Australian government itself, even prior to the APEC announcement, there was not universal enthusiasm for situating Australia's flagship REDD+ project on mostly logged-over and degraded peatlands. It did not obviously deliver 'avoided deforestation' and, because the measurement of carbon stocks and flows in a tropical peat landscape with regular, dense cloud cover was particularly complex, it did not easily lend itself to the application of Australian-style, remote sensing-based carbon accounting techniques. However, it was difficult for anybody to counter the argument that Indonesia's land-based emissions, which accounted for some 85 per cent of its total emissions, derived overwhelmingly from the decomposition and burning of peatlands, and that this would sooner or later have to be recognised, in the UNFCCC negotiations, as constituting forest degradation in an extended sense.

It should also be noted that pragmatic considerations came into play in the selection of the site for the first IAFCP demonstration activity. The government of Indonesia was disposed to agree to locate an avoided deforestation pilot on an area of land that was seen as having little economic value and was also the subject of a still-fresh Presidential

[24] At the press conference at which the program was launched, Downer said that 'through reforestation and rehabilitation of that land, some 700 million tonnes of CO2 will be *absorbed*' (emphasis added).

decree (number 2 of 2007) regarding the 'rehabilitation and revitalisation' of the ex-Mega Rice Project area. By contrast, the suggestion that Australia might support a second such activity in the intact mineral-soil forests of the Papuan provinces was met with strong resistance from the Ministry of Forestry. A proposed 1.8 million hectare Kalimantan Border Oil Palm Megaproject, announced by President Yudhoyono in 2005 with an eye to Chinese investment, had met with much criticism, and was by 2007 in abeyance, but there were still rumours that the government might negotiate a deal with China to allocate a similar, non-contiguous area of land for oil palm development in Kalimantan, Papua and other places.[25] While this might not have involved any conversion of primary forests, the Ministry of Forestry presumably wanted major REDD+ donors to operate in areas unlikely to figure at all in such negotiations. Australia was at first intent on running a second demonstration activity on mineral soil, so as to experiment with a 'purer' form of avoided deforestation, and doggedly pursued this idea until it eventually gained agreement to locate a second demonstration activity in the province of Jambi in Sumatra.[26] The Indonesian government's agreement was given without enthusiasm, and the project area, insofar as it was defined at all, was highly fragmented, with no large, contiguous areas of substantially intact forest outside national parks.

As earlier noted, it was initially envisaged that there would be private sector involvement in KFCP. BHP Billiton had been party to the announcement of the project at the Sydney Asia-Pacific Economic Cooperation (APEC) meeting in 2007 on the basis that it would engage in relevant, additional forest conservation activities in the vicinity of its mining concession areas in Kalimantan. The cost of these activities was not specified but was generally understood to be about A$2-3 million in total. However, BHP Billiton later quietly backed away, in part because its Indonesia investment strategy changed and in part because its area of operations was simply so distant from, and unlike, the KFCP project area that it was difficult to find meaningful connections.

Other private investors and project developers, some but not all of whom might reasonably be described as 'carbon cowboys', showed passing interest in KFCP, either as

[25] A Chinese oil palm investment has subsequently been established on shallow soils in the southern part (Block A North West) of the KFCP peat dome. As for Papua, discussions are continuing about the establishment of a large 'food estate' in Merauke, reminiscent of the Mega Rice Project in its aims and scale. The Merauke Integrated Food and Energy Estate (MIFEE) originally aimed to develop over one million hectares of land, reportedly including areas of primary forest, for agribusiness in order to achieve national self-sufficiency in rice, increase production of other food crops and livestock and also generate electricity from agricultural waste. The project was to commence in 2014 but has stalled owing to land acquisition problems. The Widodo administration that assumed office in October 2014 has indicated it intends to proceed with the project in some form.

[26] Australia's first preference had been to locate the second demonstration activity in one of the Papuan provinces because they offered a combination of high current threat levels with low historical rates of deforestation. Jambi was a rather poor compromise in that it had low current threat levels and high historical rates of deforestation.

an investment opportunity or, in one case—that of the Mawas Peatlands Conservation Area Project (BOS Foundation 2008)—as a potential threat to their own plans to claim credit for emissions previously avoided in part of the project area. Investors in the former group ultimately gravitated toward NGO-implemented projects, which were more self-contained, likely to move faster and developed in accordance with voluntary carbon offset standards. These investors largely evaporated following the global financial crisis of 2008. The developer of the Mawas project, whose interest was more defensive, presumably also concluded that KFCP would move too slowly to constitute any real threat. As far as is known, the Mawas project did not proceed to generate voluntary-market credits, which had been intended for use as offsets by Shell Canada, for the 125 million tonnes of emissions that it claimed to have avoided.

4.2 The project zone

KFCP was to be implemented in the north-eastern part of the Ex-Mega Rice Project (EMRP) area in the province of Central Kalimantan, on a peat 'dome' known as the Mantangai dome in the district of Kapuas. The Mega Rice Project was a failed agricultural development initiative of the Suharto government, which began in 1996 and was terminated in by President Habibie in 1999. The intention had been to drain and clear over one million hectares of peatlands and lowland swamps for rice cultivation with a view to achieving national self-sufficiency in rice, as well as promoting transmigration. Major and subsidiary canals with a total length of over 4,000 kilometres were dug to lower water levels and provide transport routes. Additional small canals (*tatas*) were dug, both before and after the implementation of the Mega Rice Project, by local people and transmigrants, principally to access timber and other forest products or, for a fee, to provide access to such products for other people (Lubis 2013: 11). Much of the deforested area, including the KFCP zone, was deep peat, defined for legal purposes as being greater than three metres in depth (though in some places peat depth was as much as 15 metres), which proved unsuitable for rice cultivation.

Photo: Robin Davies

Following the abandonment of the project, the EMRP area[27] became something of a wasteland. Around half of the 15,600 or so transmigrant families who had come to the area in connection with the Mega Rice Project left (Ritzema et al. 2014). As the drying, decomposing peat was highly combustible, the area became a site for wildfires and a major source of CO_2 emissions and smoke haze. Following President Yudhoyono's decree on the rehabilitation of the EMRP area in 2007, a master plan for the rehabilitation of the area over a five-year period was developed, with support from the government of the Netherlands, from 2007 to 2009. (The Netherlands also supported, from 2005 to 2008, the Central Kalimantan Peatlands Project, a restoration and conservation project implemented in partnership with local NGOs.) Some difficulties were encountered in reconciling the master plan with provincial zoning arrangements for the area, with the result that it has not been implemented.

The EMRP area is in general only lightly populated, and the KFCP project zone especially so, with some 9,000 mainly[28] Ngaju Dayak people in about 2,400 households occupying a small number of remote and poor villages and hamlets along the Kapuas river at the western boundary of the zone (IAFCP 2009a: 3). These people have customary ownership and usage rights over land adjacent to their settlements; the rest of the project zone is classified as protection forest—as distinct from production forest and conservation forest—and therefore administered by the Kapuas district government in

[27] This term generally refers to the total area affected by the Mega Rice Project, rather than the one-million-hectare area that was slated for conversion to rice paddies. Estimates of the size of the affected are vary between 1.4 and 1.7 million hectares.

[28] In 2009, it was estimated that 91 per cent of the population of the project zone were Ngaju Dayak people (Week, Diprose and Jessup 2014 : 8).

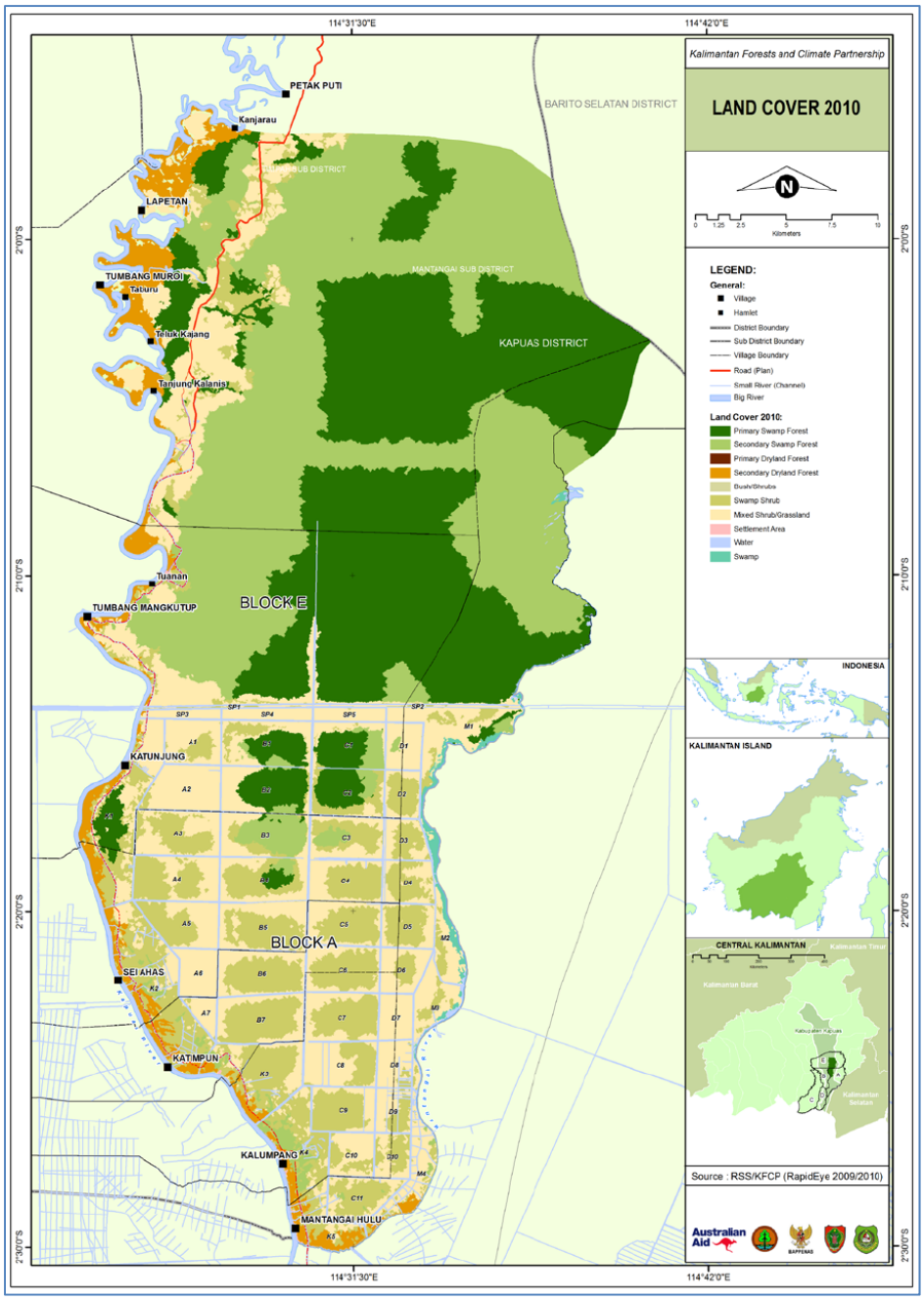
cooperation with the national Ministry of Forestry.[29] In all, there are 14 settlements in the project zone—initially seven villages and their hamlets, though two villages later subdivided. Of the nine villages in the project zone after subdivision, seven participated in the project.

The northern part of the KFCP project zone (within what is known as Block E of the EMRP area), covering about 70,000 hectares, is partially logged-over but has relatively intact peat forest cover; the southern part (within Block A of the EMRP area), covering about 50,000 hectares, is largely deforested and degraded, as shown by the land cover map at Figure 2. The zone therefore presented opportunities to pursue both avoided deforestation and the restoration and conservation of degraded areas, building on the substantial work already undertaken in the wider EMRP area with the support of the Netherlands government, and profiting from some of the implementing partnerships established by, and capacity development undertaken by, the Netherlands. (It is, by the way, unclear whether the Netherlands would have continued its support if KFCP had not appeared on the scene. The KFCP design document assumed Dutch funding would continue. It does seem clear that the Netherlands did not have the resources to put in place a project, following the closure of CKPP, on the scale envisaged for KFCP.)

Photo: Robin Davies

[29] There is some complexity behind this statement. The land's status as protection forest was only clarified, by a decree of the Ministry of Forestry, in 2012. It had previously been designated production forest. However, a Constitutional Court decision of May 2013 reinterpreted the 1999 Law on Forestry in such a way that customary forests are no longer classed as State Forest Areas. That is, they no longer belong to any of the three categories which had previously been considered exclusive and exhaustive : production, protection and conservation.

Figure 2: KFCP project zone: land cover map



Source: Week, Diprose and Jessup 2014: 11

4.3 Objectives

The media release announcing KFCP, in September 2007, stated that the project, estimated to cost A$100 million over four years, would reduce emissions by an estimated 700 million tonnes over 30 years. It would preserve 70,000 hectares of peat forest, re-flood 200,000 hectares of drained peatlands and plant up to 100 million trees on degraded peatlands (implying a reforestation area of perhaps 80,000 hectares, though this

latter figure was nowhere stated).[30] Australia would contribute A$30 million toward its cost and would seek the balance from other sources including bilateral donors, the private sector and international NGOs. The possibility of a financial contribution from the government of Indonesia, through its Reforestation Fund[31], was also in view, though not mentioned.

KFCP's original, grandiose targets did not survive the design process. This was in part because they assumed the availability of very substantial funding from other sources, which was in practice nowhere to be seen.[32] In addition, the calculations underlying the figures above either assumed that the entire $100 million would be spent on reforestation, or else severely underestimated reforestation costs.

Photo: Jonathan Pickering

Revised targets for the project were set out in the 2009 design document (IAFCP 2009a).[33] The total area to be rehabilitated and protected was reduced to a still-ambitious 120,000 hectares. The project would rehabilitate up to 50,000 hectares of degraded peatlands (down from 200,000) through canal blocking and by replanting degraded peatlands with local tree species. The area of degraded peatlands to be replanted was now just 3,000 hectares. A 2013 cost-benefit analysis undertaken by the Climate Policy Initiative stated that the area of land directly affected by project interventions, if implemented, was

[30] In general, the optimal density of seedlings would be around 1,250 per hectare or a little less—about one per eight or nine square metres—according to Euroconsult Mott MacDonald and Delft Hydraulics 2009: 43.

[31] The Reforestation Fund, administered by the Ministry of Forestry, is financed by a volume-based timber levy on forest concessionaires and supports reforestation and the rehabilitation of degraded forests. Over the last two decades or so, the timber levy has raised some US$6 billion, some of which has been used for commercial plantation development and also for projects of a political nature that fall outside the fund's mandate (Barr *et al.* 2010)

[32] The Netherlands government made a relatively small contribution toward the cost of topographical survey work (see Table 1, section 4). Negotiations with another bilateral donor for a larger contribution to KFCP were reportedly quite advanced at one stage but called off at the request of the government of Indonesia.

[33] The Australian government did not publish the design document until several years later, but it was helpfully made available via the web site of the Finnish foreign ministry, which was for a time interested in co-financing aspects of KFCP.

estimated to be 15,500 hectares (Rosenberg & Wilkinson 2013). Canal blocking would affect about 12,000 hectares in the southern half of the project zone (Block A North West) and 3,500 hectares in the northern half (Block E). About 2,000 hectares within the affected area in Block A North West—not 3,000 as indicated in the revised project targets—would be replanted.[34]

Confusingly, KFCP's reforestation estimates were ratcheted down in two steps with no explicit registration of this fact. The IAFCP 'facility' design document (IAFCP 2008)[35], which was completed some six months before the KFCP design, refers to a reforestation area of 30,000 hectares. This would have required around 33 million seedlings, around one-third the amount nominated in the original announcement. This revised reforestation target was presumably arrived at simply by making a pro-rata reduction in the original one, based on an Australia-only budget of A$30 million rather than an all-sources budget of A$100 million. However, based on the cost estimates actually used in the KFCP design, replanting 30,000 hectares would have cost some A$33 million, more than the entire allocation for KFCP. The KFCP design document itself noted a reforestation requirement of 27,500 hectares but indicated there was insufficient budget—only about A$3.3 million was available—to reforest any more than 3,000 hectares with about 3.3 million seedlings. As just noted, the area actually reforested was even less, at about 2,000 hectares.

The project design document for KFCP that was eventually completed in mid-June 2009, about two years after the idea first took shape and one year after the announcement of IAFCP, drew extensively on the IFCA Consolidation Report (Government of Indonesia 2008). The principal drivers of emissions in the project area were identified as peat decomposition associated with the subsidence of water levels, the burning of dry peat associated with agricultural land clearance and other practices[36], and small-scale illegal logging, though this last was not a large factor given that most forest areas within reach of the main settlements were approaching exhaustion.

Work commenced in the district of Kapuas in the following year. Undertaken in collaboration with communities, it involved six distinguishable elements:

i. direct measures to stabilise, rehabilitate and protect peatlands including canal-blocking, tree-planting and fire prevention and management;

[34] The further reduction from 3,000 to 2,000 hectares was the result of a decision not to plant seedlings that would mature beyond the end of the project's end-date.

[35] This was essentially a design for the overall management arrangements of IAFCP.

[36] Such as hunting, fishing, charcoal-making and salvage logging. The relative contributions of these various practices to the problem of uncontrolled peat fires is unknown.

ii. measures to promote alternative livelihoods based on sustainable land-use practices;

iii. the development and testing of a benefit-sharing framework to govern the distribution of performance-based payments;

iv. the development and testing of methodologies for measuring greenhouse gas emissions from peatlands;

v. the establishment of a REDD+ institutional framework and infrastructure at the village, district and provincial levels;

vi. the documentation and dissemination of project-derived knowledge for the benefit of other REDD+ initiatives, scientists and policymakers.

It should be noted that the actual component structure of the KFCP project (IAFCP 2009a: 17) was not as presented above. KFCP fused elements (i) and (ii) and had no formal component corresponding to element (vi), evaluation and learning.[37] This latter point is surprising given that the project was intended to be a pilot, trial or demonstration activity and that its design document had stated, 'the KFCP is intended to be a learning activity in which technical, scientific and institutional innovations are tested, refined and communicated to add to the body of REDD knowledge and experience' (IAFCP 2009a: 2).

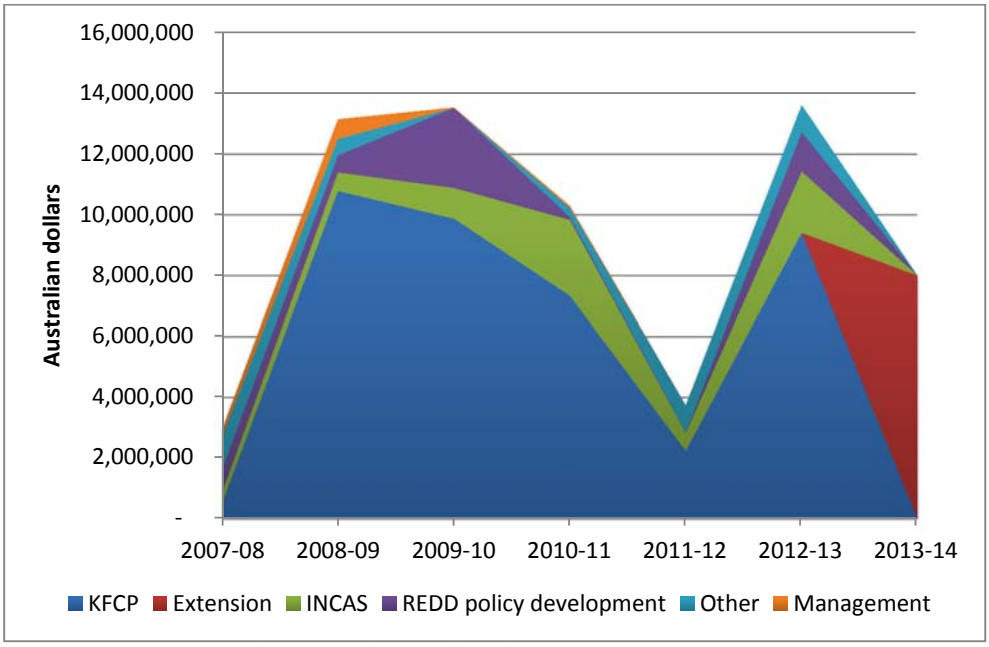
4.4 Financing

KFCP in the end disbursed somewhere toward A$40 million over seven financial years (2007-08 to 2013-14), excluding the Kalimantan Forests and Climate Trust Fund monies which were eventually directed to other purposes and including the co-financing provided by the government of the Netherlands for a Light Detection and Ranging Survey (LiDAR) survey.[38] Thus KFCP expenditure averaged about A$5.5 million per annum. Figure 3, based on information extracted from Australia's Department of Foreign Affairs and Trade under Freedom of Information Act legislation in 2013, shows the pattern of KFCP expenditure in the context of overall IAFCP expenditure. (The trough in expenditure in 2011-12, the year before the decision was taken to terminate the project, is striking.)

[37] This is not to say that the need for monitoring and evaluation went unmentioned in KFCP's design document. The point is that monitoring and evaluation did not receive the prominence one would expect in a complex, large-scale demonstration activity.

[38] No final expenditure figure has been published. Only expenditures up to mid-2013, and a mid-2013 forecast for 2013-14 expenditure, are known. An amount of A$37.5 million is cited in Atmadja et al. (2014), based on a personal communication from the Indonesian Ministry of Forestry.

Figure 3: KFCP and other IAFCP expenditure, 2007-08 to 2013-14[39]



Data source: Department of Foreign Affairs and Trade 2013: 107

4.5 Progress and achievements

A detailed account of progress achieved up to the point of KFCP's closure in mid-2014, and shortcomings, is provided at Annex 2. It must be noted that compiling a reasonably complete, consistent and coherent account of what KFCP actually did, and did not do, was extraordinarily difficult on the basis of the information that is currently available in the public domain. The annex represents the author's best attempt but is by no means satisfactory.

KFCP achieved much more than might be assumed. It delivered valuable research, improved understanding of the concept of REDD+ at all levels and developed institutional capacity to undertake REDD+ programs. It probably also achieved substantial local economic and development outcomes, though it remains to be seen whether these are realised over the long-term. Information on its achievements is beginning to appear in a piecemeal fashion, thanks to Indonesia's Forestry Research and

[39] Notes: (i) IAFCP management expenditure (staffing and other administrative costs, and management fees) would in fact have been far larger than indicated because the majority of it is subsumed under other budget lines, particularly that for KFCP. It would typically account for at least one-quarter of total expenditure, and possibly up to one-third. (ii) The 'Extension' budget line, which contained A$8 million in 2013-14 only, would have been used mainly for KFCP-related purposes, principally to complete the livelihoods program, but would also have included IAFCP program closure expenses and routine overhead costs. (iii) Most of the expenditure in 2008-09 is accounted for the lump sum contribution to the Kalimantan Forests and Climate Trust Fund, managed by the World Bank's Jakarta office.

Development Agency and the determination of IAFCP team members to record their achievements and lessons learned.

However, KFCP failed to achieve—in fact at no point attempted to achieve—its central objective, which was to trial the use of performance-based payments to effect quantified emission reductions. Its most fundamental elements, the blocking of canals and the trialling of performance based payments for emission reductions, were repeatedly delayed, then cancelled in 2013. Some piecework payments were made for reforestation and canal-blocking work, but no funded actions were related to measured reductions, even via rough proxy measures. And no links, therefore, were established between payments to actors and measured reductions. Moreover, the only actors to receive payments for performance were local villagers, despite the evident importance of the Kapuas district administration in planning and implementing certain emission reduction measures.

KFCP's structure and sequencing failed to inculcate at any level the fundamental notion that payments should flow to relevant actors broadly in proportion to their contribution to the achievement of emission reductions, and that all other project-derived resource flows to communities were either investments or dividends. Instead, KFCP mostly operated along the lines of an environmentally oriented community development grants program, albeit with some output-based payments for products delivered to specifications.

When one considers that the project zone contains only 2,400 or so households, the project's achievements, in addition to falling far short of its aims, appear expensive. Household consumption in the project zone averages about A$1,000 per annum (Milich, Djamilah & Said 2014: 5); the project spent more than double that amount per annum, per household over its seven-year lifetime (or in reality more than that, given that household participation was not universal and that almost no funding was disbursed in the first year of the project). Obviously much of KFCP's spending was neither directed at households nor intended to have a direct impact on household incomes, but this comparison nevertheless provides a sense of scale.

4.6 External criticisms

KFCP was the subject of some strident and articulate criticism from Indonesian environmental NGOs, particularly WALHI (Friends of the Earth Indonesia). Local critics saw it either as a project with worthy aims but poor execution, leading to confusion and conflict among the Ngaju Dayak people in the project zone, or else as an

extractive project that threatened to alienate local people from their land, livelihoods or 'carbon rights'. The Australian Greens were suspicious, in 2010, that KFCP might in some way support the establishment of oil palm plantations in the project zone, as a way of achieving large-scale reforestation outcomes. Subsequently they, like the local critics, also raised questions about the project's impact on the indigenous population's access to land. It should be noted, however, that researchers associated with the Centre for International Forestry Research stated in 2014 that allegations of inadequate consultation and low levels of local support were largely inconsistent with their own field observations, possibly because they were based on observations at a particular point in time, or because they reflected the views of 'a small number of vocal individuals' (Atmadja et al 2015: 307).

Two Australian National University academics, Erik Olbrei and Stephen Howes, faulted the project in 2012 for not delivering to any credible degree on the ambitious objectives articulated for it in 2007, and for failing to rescind or publicly downscale those objectives (Olbrei & Howes 2012). They argued that KFCP was a classic aid 'announceable', launched with little planning and much rhetoric, and subsequently left to drift. Further, it had been downscaled to the point of insignificance so had best be discontinued or else replaced with something more ambitious, coupled with high-level policy dialogue. More generally, they said, the experience of KFCP and other demonstration activities suggested that REDD+ did not offer the quick and cheap wins claimed by some early proponents. Their views were based on in-depth research, including field research, and attracted considerable media attention when published. This in turn captured the attention of some Australian parliamentarians.

Olbrei and Howes's criticisms were for the most part not explicitly aimed at the REDD+ enterprise writ large. As criticisms of the conception and execution of a particular demonstration activity, they were largely irrefutable.[40] Nevertheless, their findings and recommendations tended to assume a purely negative aspect in media reporting. This was in part because, in common with many NGO critics of KFCP, they did not state a position on the fundamental question whether the game was worth the candle. It was unclear whether KFCP was being convicted of poor implementation or whether it, and other efforts like it, were guilty of greater crimes: either fundamental infeasibility or else irrelevance in the context of the Norway-induced push for a national- and provincial-level approach to REDD+. (Other critics, including Friends of the Earth

[40] One can, however, question their assumption that KFCP would only have achieved something if it resulted in the conservation or rehabilitation of an area large enough to be significant in the context of Indonesia's national emissions. The fact that KFCP was originally intended to test payment for performance in a particular landscape, and in the context of a potential global market for REDD+ credits, was not acknowledged. Indeed KFCP's failure to deliver on this front largely escaped their criticism.

Australia, appeared to hold both of these views at different times.) In the absence of any strong countervailing voices urging patience and defending the potential value of REDD+ demonstration activities, this authoritative academic critique and the more strident NGO critiques combined to create the impression that KFCP could not, or even should not, succeed in its aims. It began to be perceived within AusAID as a 'problem project'.

The Australian government responded to all external criticisms, when it responded at all, in terms that were so general as to be uninformative and unconvincing. Typically, it pointed to the extensive consultative, information-sharing and village-level capacity building processes which had been undertaken, implying in fact that these were responsible for the implementation delays about which some critics were concerned (Australian Government 2011).

While the Australian government could not plausibly claim impressive progress under KFCP, or avoid charges of rhetorical over-reach, various points might have been made more forcefully in response to criticisms. For example:

- KFCP village agreements, which had been developed through a long process of consultation, stipulated that KFCP would not attempt to change the legal status of land in and around villages, or limit the customary rights of villages to the use of that land (Week, Diprose & Jessup 2014: 45);

- reforestation activities were undertaken only on degraded village lands, with village agreement and under village-based management;

- livelihoods activities including rubber cultivation were undertaken only on land controlled by the relevant households (including parcels granted by villages to previously landless households);

- *tatas* blocking was undertaken only with the consent of compensated *tatas* owners and the blocking of larger canals, had that proceeded, would have been undertaken within protection forest areas and with, according to the World Bank's economic and social assessment of the project, net positive impacts on village economies; and

- villagers were engaged to the maximum extent possible in preparations for canal blocking and in the monitoring of vegetation, fires and water levels.

While Australia could, and occasionally did[41], also say that it had no intention of claiming any emission reductions achieved by KFCP for its own use, it would have been more difficult to provide any assurances about the ownership of carbon rights within Indonesia, since no national legal framework had been defined to provide clarity on that question. It must be assumed that if KFCP had in fact, in some remote possible world, made payments for measured reductions, or payments which at some later date could be retrospectively and credibly linked to measured reductions, that the ownership of any resultant 'credits' would have resided in the first instance with the national government.

Overall, local and international criticisms began to take a toll during 2011 and 2012. Senior officials in Canberra, not all of them familiar with the facts of the matter, began to respond to criticisms by saying that the project had underestimated the difficulties of operating in a context where land tenure and land use rights were so uncertain. For example, Blair Comley, head of the Department of Climate Change, responded to questioning by a parliamentary committee as follows.

> *I think the issue that has been found in Kalimantan has essentially revolved around the fact that land tenure issues have been more complex than first thought and resolving the land tenure issues has taken longer than first thought' (May 2012).*

In fact, the project was in no way dependent on the resolution of questions about land tenure and land use, as it did not seek to alter existing land ownership and land use rights. That is not to say that there were no local concerns about the project's potential impacts on land ownership and usage rights, or that no effort needed to be made to allay such concerns. The point is rather that there was no occasion for dispute resolution, and that land-tenure 'issues' could not be held responsible for the project's meagre progress.

Senior officials also tended to respond to questions about the downscaling of the project's original targets by saying that a decision had been taken, following COP 13 in Bali, to operate the project 'only' as a demonstration activity, as if that term entailed more modest ambitions. However, that term, as used in the Bali Action Plan, did not entail any limitation of size or scope. KFCP as originally announced was already a demonstration activity, and a large-scale one, even if not labelled as such until the following year.

4.7 Closure

By the middle of 2012 or so, not only was KFCP moving slowly and generating negative publicity, it was taking management attention away from the development and

[41] From Australian Government 2011: 'The Australian Government will not receive any tradable carbon credits from the KFCP activity'.

implementation of other large activities in what was a fast-growing bilateral aid program. It was clearly a project that the then Coalition opposition would not wish to support in government, despite the Coalition's historical responsibility for creating it. In addition, most of Australia's bilateral aid programs, including that in Indonesia, were required to offer up budgetary savings in both December 2012 and May 2013 in order to meet large costs, totalling A$750 million over those two years, associated with the presence in the Australian community of asylum-seekers from developing countries.[42]

At some stage in the second half of 2012, a decision was taken within AusAID to set about terminating KFCP rather than extending it beyond its scheduled mid-2013 end-date, though an extension for at least another several years clearly would have been required if the project were to meet anything resembling its main aims as redefined in 2009. To soften the blow to the national, provincial and district governments, and local communities, and perhaps the IAFCP team itself, and also to minimise the risk of further external criticism, the project's livelihoods component was extended for one year and funding was provided to prepare the series of lessons-learned, technical and scientific papers mentioned in section 2.4. It is unknown how much livelihoods funding was disbursed in the final year of the project, but it is likely to have accounted for a substantial proportion of the A$8 million allocated for all activities in the extension year (see Annex 2).

While critics' concerns about KFCP's impacts on local communities were largely without foundation, they became largely irrelevant with the announcement of the project's discontinuation, just prior to a mid-2013 visit to Indonesia by Kevin Rudd, who had by that time reciprocally usurped Julia Gillard to become Prime Minister for a second, short spell. At that point, the focus of external criticism shifted to the manner in which the project had been terminated, and the paucity of public information about its activities, its expenditure and the reasons for its termination. Again, Friends of the Earth was particularly vocal, writing an open letter to Australian foreign minister Bob Carr and other ministers, in August 2013, in which it requested information on the project's budget, the problems it encountered and the reasons its discontinuation, and called for a full, independent project evaluation to be undertaken (Friends of the Earth 2013). The Australian government changed a month later. The incoming Abbott Coalition government felt no obligation to respond on any of the points above, and undoubtedly felt relieved, and perhaps also surprised, that its predecessor had saved it the trouble of closing IAFCP, including KFCP.

[42] For the most part, Australia had not previously treated such costs as a charge to the Official Development Assistance (ODA) budget. Controversially, OECD guidelines do allow the reporting of these costs as ODA.

4.8 What went wrong?

KFCP's demise was certainly not a case of orderly project closure in line with an agreed schedule. An AusAID submission to foreign minister Bob Carr in April 2013 described it as a 'managed exit', and referred also to 'far slower progress than expected, owing to longer-than-expected consultations with affected communities and poor weather conditions'[43] as well as 'persistent slow progress on REDD+ both in Indonesia and globally' (Department of Foreign Affairs and Trade 2013: 133). The project elements to be discontinued in 2013-14 were described as 'non-performing elements'.

An internal AusAID minute, in the same month, particularly stressed the slow progress of the UNFCCC negotiations, saying, 'negotiation on the details of an international framework on REDD+ has not proceeded at the pace anticipated … a comprehensive international climate change agreement, including for REDD+, is unlikely to be finalised and operational before 2020 (Department of Foreign Affairs and Trade 2013: 79). This was despite the fact that KFCP, and IFCI generally, was intended to get out in front of, and inform, the ongoing negotiations. If anything, one might have expected slow progress on the international front to be perceived as mitigating the impact of slow progress with KFCP.

KFCP had about five years, from 2008 to 2012, in which to pursue its aims, before the guillotine started to fall. While its formal design was not completed until 2009, it was possible to undertake activities from early 2008, and some were indeed undertaken, such as a draft strategic plan for canal blocking in the southern part of the project zone. What, then, went so wrong that the Labor government was itself moved to liquidate a project that in due course would have been liquidated by its opponents?

Numerous possible factors in KFCP's demise have already been alluded to in the discussion above, and in Annex 2, including those cited in AusAID's submission to Bob Carr in April 2013. The main such factors, which number a dozen, are discussed in Table 2 below, with an assessment, admittedly quite subjective and debatable, of the significance of each.

[43] Weather conditions reportedly delayed the conduct of the LiDAR survey considerably.

Table 2: Possible factors in KFCP's demise

(i) Australian policy reversals	*Impact: minor*
As outlined in section 2.4, the Australian policy environment for cooperation under IAFCP became much less favourable over time. The Rudd Labor government shelved its emissions trading scheme in April 2010, almost two years after announcing IAFCP, and ministerial enthusiasm for bilateral cooperation on REDD+ waned. The Gillard Labor government's resurrected emissions trading scheme, introduced in 2012, allowed no international linking until 2015. By late 2012 it was evident an Abbott Coalition government would be elected and would scrap domestic emission limits. In addition, the Coalition had been saying since 2010 that in government it would not use overseas aid for climate change-related purposes.	The Labor government remained committed to global cooperation on climate change until it lost office in 2013, and placed strong emphasis on REDD+ in its fast-start financing package for the period July 2010 to June 2013. KFCP had a five-year window, from 2008 to 2012, in which to test the use of performance-based payment for emission reductions. Only toward late 2012 did it become rational for Australian agencies to seek to avoid further commitments to IAFCP and other aid-funded climate change mitigation programs. Even at that point, there was no reason for aversion to such commitments at the political level: if anything, the incumbent Labor government might have been expected to hand the KFCP 'problem' to its political opponents, perhaps with some glee given the likely diplomatic difficulties associated with unilateral program termination, not to mention that the Coalition would have been terminating a program of its own devising.
(ii) Norwegian Letter of Intent	*Impact: nil, in net terms*
Indonesia's commitments under the Indonesia-Norway Letter of Intent (LoI), signed in May 2010, related to policy and institutional measures at the national level or at the level of the 'pilot province'. Norway was not known to be in favour of devoting resources to site-based interventions such as KFCP. In addition, relevant Indonesian officials at the national level became enormously preoccupied with meeting Norway's requirements, and less interested in some smaller programs of assistance.	The Indonesian government's decision to nominate Central Kalimantan as the Pilot Province under the LoI owed at least something to the presence of KFCP. Moreover, the government's interest in KFCP and its continuation was noticeably enhanced, not reduced, following the signing of the LoI. While it is certainly the case that KFCP did not position itself well to support the LoI process at the provincial level, the Indonesian government's preoccupation with the LoI tended to shift its focus from process to results, thus in principle allowing KFCP more freedom of movement.
(iii) Choice of peat landscape	*Impact: minor*
Biomass estimation and carbon modelling is particularly challenging in an extensive tropical peat swamp forest of variable and often considerable depth. Moreover, there was no international agreement at the time of KFCP's establishment that a global REDD+ mechanism would cover peatlands, emissions from which are primarily caused by 'degradation' in a quite extended sense (the decomposition and burning of peat).	Rough, area-based proxies for emissions avoided could have been used in the early stages of a performance-based payment scheme (land area rehabilitated to a certain standard, reduction in land area burnt, etc.), and the KFCP project zone offered some advantages over other landscapes. It was relatively lightly populated, was the subject of a recent Presidential decree concerning its rehabilitation, and offered opportunities to achieve very large emission reductions at relatively low cost, primarily through canal blocking. The complexities involved in estimating carbon stocks and flows in the peatlands of Indonesia had to be addressed, in view of the magnitude of the emissions. There was little reason to doubt that, provided measurement challenges could in time be overcome, avoided emissions from peatlands would figure in any global REDD+ mechanism. The government of Indonesia certainly did not doubt this.
(iv) Land- and resource-use disputes	*Impact: minor*
Senior Australian officials, under critical questioning, attributed delays in program implementation to unexpected or worse-than-expected problems in gaining agreement from communities to program-related land use changes. Consistent with this, a coalition of local NGOs sent an open letter to an Australian	Village agreements stated clearly that existing land use rights would not be affected. This provision might well have been viewed with suspicion by some villagers, who were inclined to believe that Australia was seeking to acquire valuable 'carbon rights', if not rights to land, at low cost. However, very little infrastructure work

government team visiting Central Kalimantan in 2011, claiming that the rights of the mainly Dayak people in the project zone were not being respected.	was actually attempted, and hardly any emissions avoided, so there were few practical opportunities for dispute. In relation to the limited infrastructure work that was planned and in some cases attempted, there is no evidence that concerns about land use entitlements presented a significant barrier to implementation. It is clear that participatory land use mapping should have been undertaken much earlier in the life of the project, and more effort made to communicate that Australia would acquire no land or resource rights of any kind. However, in the absence of action on canal blocking, the main benefit of this would have been to avoid general misconceptions and criticisms.
(v) World Bank procedural delays	*Impact: moderate*
The Kalimantan Forests and Climate Trust Fund at the World Bank's Indonesia office was established to function as a performance-based payment mechanism for KFCP in its latter stages, and capitalised with A$8.4 million in 2009. The trust fund could not be activated, or any major environmental interventions undertaken, before completion of a Regional Environmental and Social Assessment (RESA) in line with the Bank's safeguards policies. The RESA was a rigorous and lengthy process, which depended on the prior completion of an Indonesian environmental management and monitoring plan. The RESA was not finalised until 2012, several years after the establishment of the trust fund.	The trust fund was established not because it was the only way of managing payments for performance, but rather to relieve disbursement pressure (there was little else on which available project funds could be spent in 2008-09) and also to put long-term payment management at arm's length from project development. Payments for performance that were not dependent on canal blocking could have been provided from other sources within the KFCP project budget pending completion of the RESA. There was no reason why work could not have been undertaken by the planned expert group on benefit sharing, in parallel with the RESA process, to develop equitable and effective benefit-distribution arrangements.
(vi) Slow progress of global negotiations on REDD+	*Impact: nil*
While discussions on REDD+ in the UNFCCC context proceeded well at a technical level, there was no agreement to establish a global REDD+ mechanism at COP 15 in Copenhagen or subsequently. Slow progress in the UNFCCC negotiations was cited as one reason to exit KFCP in a submission to Australian foreign minister Bob Carr in April 2013. The implication was that KFCP was now decreasingly relevant because, along with action supported by other donors, it had failed to add momentum at the global level.	Discussions on REDD+ at the UNFCCC level could not have been expected to result in agreement on the specifics of a global REDD+ mechanism in isolation from other aspects of a global agreement. The rationale for implementing demonstration activities has in fact not changed since COP 13 in Bali: it needs to be shown that incentives can operate effectively at the landscape level, and at what cost, before governments or markets will invest in REDD+, and before governments will take on REDD+-based emission reduction commitments. It might as well have been argued that the slow progress of the global negotiations mitigated the slow progress of KFCP itself, allowing it a more appropriate span of time to achieve its aims.
(vii) Deficient project management and governance	*Impact: moderate*
On both the Australian and Indonesian sides, the governance of KFCP was to some degree shared between two principal agencies with different interests and outlooks. The IAFCP Steering Committee was the over-arching project governance forum but it met only sporadically, was not an effective decision-making forum and diminished in importance following the signing of the Letter of Intent between the governments of Norway and Indonesia. It did not successfully engage Indonesia's finance and environment ministries at senior levels. The IAFCP's implementation arrangements were adviser-heavy and did not evolve quickly enough to accommodate the requirements of large project management after the early project development	It is in the nature of REDD+ that it brings together strange bedfellows: climate change specialists and development assistance specialists on the Australian side, and forestry and development planning specialists on the Indonesian side. It would be unrealistic to suggest that monopolistic management by any existing agency was feasible on either side. The Steering Committee's effectiveness was certainly questionable, as it seemed to operate mainly as a forum for debating administrative matters and focused little on the specifics of KFCP and the INCAS support program. However, it does not appear that its existence and mode of operation unduly impeded IAFCP's capacity to achieve outcomes, particularly after the 2009 design

phase (see section 6).	document had been approved and the LoI with Norway shifted attention away from administrative minutiae. IAFCP's implementation arrangements were sub-optimal, but this was arguably a derivative factor, like factors (xi) and (xii) below.
(viii) Uncertainty about national REDD+ financing arrangements	*Impact: moderate*
There appears to have been an unstated view on the Australian side that a true performance-based payment regime could not be put in place until the overall REDD+ payment architecture had been settled at the national level. In 2009, outside the framework of KFCP, Australia provided technical assistance in the preparation of the government of Indonesia's Climate Change Green Paper which promoted the concept of a 'Regional Incentive Mechanism' with cascading payments from the national level rewarding emission reductions achieved at the provincial or district level. The failure to make available performance-based payments to the Kapuas district administration, and possibly the provincial administration, for actions within their competence suggests that uncertainty about national payment architecture (and perhaps also concern about the fiduciary risk involved in providing payments direct to governments) played at least a moderate role in decisions to postpone repeatedly KFCP's work on benefit sharing.	As one of the post-project lessons-learned documents put it, 'it was difficult for field staff to convey underlying REDD+ concepts … and to explain the difference between program activities and the wider, not yet finalised REDD+ architecture' (IAFCP 2014a: v). However, there would seem no reason why benefit-sharing arrangements at village and district level could not have been developed while maintaining agnosticism about the role of the national and provincial governments in channeling or regulating REDD+ financing flows. It should be noted that the failure to establish true performance-based payments to communities, as opposed to piecework payments, may also be explained by the concern about measurement precision that is discussed immediately below.
(ix) Preoccupation with measurement precision	*Impact: moderate*
There appears to have been a second unstated view on the Australian side, namely that taking large-scale action to reduce emissions in the project zone in the absence of precise measurement methodologies and systems might result in 'wasted' emission reductions: reductions for which no party would subsequently be able to claim credit under a future REDD+ mechanism. KFCP devoted very considerable funding and management effort to carbon stock and flow estimation in the project area, far outweighing that devoted to other project elements. Most of the other activities actually undertaken by KFCP were essentially of a preparatory nature or, where directed at reducing emissions, extremely marginal.	The practical goal of KFCP was to determine whether results-based financing could create strong enough incentives for relevant local actors to counter emission drivers in the project zone, and at what cost. For this purpose, results did not have to be initially specified and measured in terms of CO_2-equivalent tonnes of emissions avoided. It was certainly necessary to specify and measure results more exactly over time, but this could have been achieved through parallel work on peat carbon measurement, reporting and verification, undertaken not within the management structure of KFCP but rather as part of the INCAS support program. It is not possible to know whether proceeding on the basis of rough emission reduction proxies would have eliminated the possibility of crediting any reductions achieved at some future time, but it is conceivable that retrospective estimation would have permitted crediting.

(x) Uncertainty of purpose	*Impact: major*
KFCP was at no time provided with precise objectives. According to its design document, its purpose was 'to demonstrate a credible, equitable, and effective approach to reducing greenhouse gas emissions from deforestation and forest degradation, especially from the degradation of peatlands'. The trialling of payment-for-performance to achieve emission reductions figured only in a list of various indicators for assessing progress toward the achievement of the above purpose. Specifically, the relevant indicator was 'the development of payment mechanisms which provide incentives to achieve and sustain emission reductions'. KFCP was implemented as several projects in one—peat science, community development, landscape protection and rehabilitation—with no unifying objective.	If true to its original conception as a REDD+ demonstration activity, the objective of KFCP would have been explicitly defined in terms of trialling payment for performance, with performance defined in terms of emission reduction outcomes; with a clear separation between readiness assistance and REDD+ financing; and with a clear understanding that community benefits would arise from REDD+ investments and dividends, rather than from parallel grants. The design of the project did not clearly distinguish between REDD+ readiness assistance and REDD+ financing, nor adequately situate payments to households as either investments (effectively advances) leading toward the production of a longer-term REDD+ revenue stream, or as dividends of such investments. Much of what KFCP actually did fell into the readiness category, or else was conceived as public financing for actions that might contribute to emission reductions, without the specific impact of those actions being assessed or proportionally rewarded. Where performance-based payments were made, these were piecework payments, not payments for emission reductions or proxies thereof. The establishment of a performance-based-payments regime was effectively treated as an optional and secondary task.
(xi) Lack of consultation and ownership	*Impact: major (but a derivative factor)*
Here there were risks on both the donor side and the beneficiary side. Climate change mitigation was not among the strategic priorities of the Australian aid program in Indonesia before the establishment of IAFCP, and had to be 'bolted on'. And for much of the life of KFCP, there was exceedingly limited engagement between the project and provincial and district authorities.	The first of the risks identified at left was not realised. Climate change mitigation in Indonesia was rather quickly and fully internalised, at least in principle, as a priority for Australia's aid program in Indonesia by both the Australian aid administration and its counterpart agencies in Jakarta. The second of the stated risks was realised. However, KFCP's failure adequately to engage the provincial and district levels of government flowed from the several more significant problems listed immediately above. The negative impacts of this failure derived from those problems.
(xii) Selection and sequencing of interventions	*Impact: major (but a derivative factor)*
Planning for canal-blocking was undertaken quickly, but plans were not executed. The large emphasis on revegetation in the early years of the project was not matched by any comparable emphasis on the re-wetting of peatlands through canal blocking, without which revegetation was largely pointless. Work to develop benefit-sharing arrangements was repeatedly postponed. 'Performance-based' payments were few and in reality payments for piecework. Livelihoods assistance was conceived as separate from, though helping to enable, KFCP's emission reduction component.	These problems, while large, can be analysed as being derivative. Given the absence of a clear policy focus on results-based financing and the lack of any appetite to implement serious emission reduction measures without precise measurement, it appears that program administrators opted to move ahead in the areas where it was most feasible to make progress: peat carbon research, revegetation and alternative livelihoods assistance.

4.9 Conclusion

As argued above, most of the possible factors in KFCP's demise were not in reality important, or were of minor-to-moderate importance, or were derivative in nature. The fundamental problem was an uncertainty of purpose. KFCP proceeded, in fact, as if it had three quite separate, if eventually converging, purposes:

i. developing and testing methods for the accurate estimation of peat carbon stocks and flows in the project zone;

ii. testing the technical feasibility of various subsidised emission reduction measures in the project zone; and

iii. establishing transparent and equitable arrangements for the distribution of future income from the sale, to public or private buyers, of measured emission reductions.

Over time, KFCP even began to pursue a fourth purpose, namely REDD+ confidence-building through the provision of 'livelihoods' assistance. Much of the assistance under this heading, while increasing incomes and building assets, was not providing an alternative to activities likely to result in emissions and therefore did not fit under the second of the above purposes.[44] It was quite explicitly provided in order to secure villages' participation in the project.

The several distinct purposes above were not tied together as clearly and as closely as they should have been in the single-minded pursuit of an effective payment-for-performance regime. Instead, a large amount of effort, time and money was invested in peat carbon measurement work, the technical feasibility of physical interventions was explored in a partial and tentative way without being related to anything resembling proxies for emission reduction targets, and work on benefit-distribution arrangements for incentive-based payments—which would have played an integrating role by creating a financial link between practical actions and quantified outcomes of some kind—was viewed as, at best, a longer-term priority. Some fairly standard arrangements were put in place at the village level for the management of KFCP-derived grants and contractual payments, but no wider arrangements were put in place for distributing outcome-linked payments to responsible actors broadly in proportion to their contributions.

The logic that prevailed in the implementation of KFCP is well reflected in the following quote from the authors of the Climate Policy Initiative's 2013 cost-benefit analysis:

[44] An exception to this point was assistance to the landless poor, who are more likely to engage in hunting, fishing and wood scavenging in deep peat areas.

> *As the Australian government never aimed to generate financial returns from the KFCP project, the question of how potential revenues from saleable emissions reductions would be redistributed among different stakeholders was never addressed (Rosenberg & Wilkinson 2013: 20).*

That is, benefit-sharing arrangements were seen as secondary, not fundamental, because the project saw itself as essentially trialling the technical feasibility of various interventions and generating some public goods in the process. Payments to communities, once they began to be made in the final years of the project, had neither the character of investments in the production of a REDD+-related income stream, nor the character of dividends from such an income stream; rather, they were simply grants or piecework payments.

Given KFCP's 'science and policy first, payments later' approach, communities saw little by way of tangible benefits from the project during the extended period when the concept of REDD+ was being 'socialised' (a term used in Indonesia to mean something like 'explained and rendered acceptable') and village-level project governance arrangements were being put in place. The holding-back of most funds for villages, which did not really begin to flow until the second half of 2012, likely reduced the momentum of the project considerably. It would have been preferable to commence livelihoods assistance much earlier (as is acknowledged in Week, Diprose & Jessup 2014: vi) and to introduce and refine benefit-sharing structures in connection with that assistance, rather than conceiving it primarily as a confidence-building tool unrelated to emission reductions. At the same time, it would have been important to engage villagers earlier in fire prevention and management efforts, and in preparations for the blocking of *tatas*, so that the livelihoods assistance could have assumed the character of a performance dividend.

The absence of progress on canal blocking, while understandable if the factors cited above were in fact influential, is particularly regrettable. The digging of canals caused the major problem that the project was seeking to address; the blocking of canals should have been central to the project throughout its life span. Early work, before the design was completed, did in fact focus heavily on canal blocking but the emphasis shifted to revegetation, and later livelihoods assistance, once the design had been completed. In part this has been put down to weather-related delays in conducting the LiDAR survey that was necessary in order to determine the appropriate locations for dams of various types. However, it was clearly possible to undertake the blocking of some *tatas* on a pilot basis early on, without prejudice to the design of the overall dam 'system'. A stronger and earlier emphasis on canal blocking would have served not only to trial improvements on previous approaches to canal blocking under the Dutch-funded

Central Kalimantan Peatlands Project, but also to underline the central objective of the project. It would have helped to concentrate villagers' attention on the fundamental cause of high emissions from the project zone.

Photo: Robin Davies

Payments for the construction and maintenance of dams (subject to completion of the RESA), and also for the monitoring and prevention of fires, could have been linked systematically to clearly specified quantitative and qualitative targets whose values were clearly proportional to emissions avoided even if they made no reference to a specific quantity of emissions avoided. Targets might have been expressed, for example, in terms of land area re-flooded and rehabilitated, or land area unaffected by fire.[45] Payments for seedlings and wooden dam structures, by contrast, served only to inculcate a general familiarity with payment-for-performance, and did little to reinforce the fundamental aim of the project.

One would think that the main game for a bilateral donor like Australia, with the opportunities it had in Indonesia, was to work out how to size and distribute financial incentives for action to counter the causes of emissions from the project zone, in such a way that emission reductions were achieved affordably and sustained—where sustainability depended heavily on compensating all relevant actors broadly in proportion to their contributions. This emphasis on the operation of 'positive incentives' was central to the notion of a demonstration activity as envisaged at COP 13, and remains relevant. In order to gain a good enough understanding of how incentives can spur action at the local level, and at what cost, precise carbon measurement is not essential. Nor is working out how a local project's payment arrangements might be

[45] As noted in Annex 2, A2.3, this was reportedly done to a limited extent in connection with KFCP's reforestation work. Payments to villages under KFCP village agreements were determined partly by reference to the number of hectares of land successfully replanted.

configured so as to fit into an as-yet-undefined international, national or sub-national REDD+ financing architecture. In time, of course, it would have been necessary for KFCP to achieve a level of measurement precision that allowed the calculation of a reasonably exact price per tonne for emission reductions achieved in tropical peat landscapes, but this level of precision was not a prerequisite for performance-based payment.

It would be glib to describe the story of KFCP simply as an unfortunate instance of the 'aid-ification' of a REDD+ initiative (Angelsen et al. 2012: 320, and Angelsen 2013), where this involves thinking small, manipulating inputs and testing a 'theory of change' rather than focusing on incentives for the achievement of large-scale outcomes. There is no doubt some element of truth in this description. However, once one assumes that performance-based payments cannot be made without a high degree of measurement precision and without certainty about the wider REDD+ payment architecture, and indeed that trialling performance-based payment for emission reductions is a second-order priority, it is natural for a project implementation agency, which in this case was an international development agency, to shift into local economic development and capacity-building mode—to get on with what it knows how to do. Ironically, it tends to be people from the climate change mitigation 'world' who are so focused upon measurement precision and national financing architecture, and less interested in the economics and psychology of payment-for-performance at the landscape level.

It should not be concluded from KFCP's case that there is no place for designed, guided, site-specific demonstration activities, and that once performance expectations are set, and some readiness assistance provided, the production of avoided emissions will begin of its own accord. Ultimately progress in REDD+ will depend upon, not necessarily project-like investments as seen in connection with the Clean Development Mechanism of the Kyoto Protocol, but site-specific action across a series of sites. Investments in such action, whether by private investors, international public investors, or some level of government within the country concerned, will depend upon a prior understanding of what might realistically be achieved at a given site and at roughly what cost. Unless this is done, and seen to be done, no public or private investor will place money at risk. Essentially this is a process of price discovery. A public 'producer' of emission reductions has to demonstrate value for money; a private one wants to be sure there will be an acceptable margin above cost before investing.

5. INCAS

This section provides an examination, relatively brief, of Australia's support for INCAS under IAFCP. This support aimed initially to make Indonesia self-sufficient in carbon accounting with respect to land-based emissions. It accounted for roughly A$7 million of IAFCP's total expenditure of A$65 million.

5.1 Context

In announcing GIFC in March 2007, Australia's Coalition government said that measurement of progress toward REDD+ payment milestones would be 'underpinned by the investment in the technology and systems to robustly monitor forest resources'. In announcing IAFCP in mid-2008, Australia's Labor government said that the partnership would include 'technical, scientific and analytical support to underpin the development of [Indonesia's] Forest Resource Information System, the provision of remote sensing data, and the sharing of experiences from the development and implementation of [Australia's] National Carbon Accounting System.' Australia's general objective was to provide 'financial and technical support to build Indonesia's capacity to develop and operate a sovereign forest carbon accounting system'.

Support for Indonesia's national carbon accounting system, which came to be referred to as INCAS, was almost entirely the domain of Australia's Department of Climate Change. That department, at least initially, saw little or no need to connect its INCAS support efforts with KFCP, or with the other planned (but later cancelled) demonstration activity in Sumatra. Its main interest was in national-level forest carbon accounting to support national-level payment for performance. The Department of Climate Change tended to align with the view, mentioned in section 4.9, that demonstration activities were instances of REDD+ 'aid-ification'—though of course it was not actually in possession of that concept or item of vocabulary. In addition, as noted in section 4.1, the department had been unimpressed by the decision that Australia's flagship demonstration activity would be located in a peat landscape, which did not lend itself to Australian-style remote-sensing approaches to the measurement of emissions from land use change.

The Department of Climate Change found itself working in a very crowded space in Jakarta. Many other governments and organisations were offering to assist Indonesia in obtaining and processing public-domain satellite data, particularly from NASA's MODIS satellite. Brazil, a fellow rainforest nation, was among them. Indonesia had already been developing, with external assistance, a forest monitoring and information transparency

mechanism known as FOMAS, which later morphed into an over-arching Forest Resource Management System comprising a Forest Resource Information System (FRIS) to provide data for sustainable forest management, and INCAS, to measure forest carbon emission and sequestration. This involved a number of Indonesian government agencies, all jockeying for the principal role, namely the National Institute of Aeronautics and Space (LAPAN), the Geospatial Information Agency (BIG) and the Directorate-General of Forest Planning within the Ministry of Forestry itself. There was, in this complex environment, little prospect of creating an exclusive, purely technical relationship with the government of Indonesia in relation to carbon accounting, nor of simply transplanting Australia's National Carbon Accounting System into the Indonesian context.

5.2 Objectives

The specific aim of Australia's support for INCAS was to develop 'a pilot forest carbon accounting system that will comply with international good practice for forest carbon accounting'. Among other things, this system was to play a central role in 'tracking progress towards emissions reductions targets; … providing emissions estimates to inform Indonesia's national GHG inventories and other emissions reporting requirements, such as the National Communications to the UNFCCC; supporting participation in future carbon markets; … (and) generating reference emissions level (REL) scenarios'. (archived IAFCP web site)

The work of the INCAS support program, like that of KFCP, involved six distinguishable elements:

i. the acquisition, processing, storage and collation of remote sensing and other relevant data from multiple sources;

ii. the completion of historical land cover change analysis based on remote sensing data;

iii. the development of biomass estimation methodologies and production of estimates;

iv. the development of national carbon accounting capacity;

v. support for the development of a provincial measurement, reporting and verification (MRV) system in Central Kalimantan; and

vi. institutional development in relevant national agencies.

It should be noted that the INCAS support program did not have a formal component structure with anything like the above elements. The relevant project design document was not made public but, in a draft version of it released in 2009 by the Indonesian Ministry of Forestry, one finds several very general objectives, a long list of technical tasks, and three more specific objectives, namely:

- Develop a comprehensive GIS [Geographic Information System] that includes digital map-based information such as soil maps, remotely sensed images covering the whole of Indonesia, and climate and vegetation data.
- Predict future GHG emissions and sinks.
- Support Indonesia's negotiations on REDD and provide the necessary inputs required for establishing a credible Reference Emission Level. (IAFCP 2009b: 11)

The budget envisaged for the INCAS support program in the draft design document was US$12 million, or about A$15 million at the prevailing exchange rate (IAFCP 2009b: 24). In the end, it appears that not much more than half of this amount was spent.

5.3 Progress and achievements

A detailed account of the progress of the INCAS support program up to the point of closure, and shortcomings, is provided at Annex 3. As in the case of KFCP, this was far from easy to compile on the basis of the information available in the public domain.

Forest extent and change map, Indonesia, 2000-09 (Source: IAFCP 2014c)

Overall, Australia's support for INCAS was relatively successful if judged against realistic aims, and might have been more so if it adopted a more flexible, demand-driven approach from the outset. It also seems to have achieved good value for money, at around A$7 million over seven years (Department of Foreign Affairs and Trade 2013:

107).[46] Its achievements might well be durable if enough ongoing assistance is maintained.

However, the INCAS support program fell far short of the aims originally envisaged for it. Australia's support was to help Indonesia achieve self-sufficiency in forest carbon accounting by mid-2013 (IAFCP 2011), and provide it with a capacity to undertake national-scale annual reporting on land-cover change, together with carbon modelling. In addition, it was clearly expected that Australian assistance would help Indonesia to establish an REL at the national level, and later at the level of the province of Central Kalimantan.

IAFCP was hampered in pursuing these aims by two main problems. First, there were problems within the Indonesian government, most notably an unwillingness on the part of the custodians of National Forest Inventory data to make that data available for the purposes of INCAS (IAFCP 2011: 14). Second, the early years of INCAS were characterised by a somewhat supply-driven, territorial approach on the Australian side. Even without these problems, the original goals of Australia's support for INCAS were likely unrealistic, given a timeframe of initially just five and ultimately seven years.

6. Partnership governance and management

This section, very briefly, outlines IAFCP's management and governance arrangements. As stated earlier, these were far from ideal and some observers are inclined to see them as the principal factor in IAFCP's failure to thrive. This paper has quite consciously adopted an alternative view, which of course is not beyond dispute, that most problems of management and governance would have been avoided or swiftly corrected if only IAFCP had sufficiently clear objectives and resolute leadership.

6.1 Australian government

Within the Australian government, oversight of GIFC, and subsequently IFCI, was the joint responsibility of two ministers, the Minister for Foreign Affairs and the Minister for Climate Change—at least until March 2013, when the Department of Climate Change was folded into a large, omnibus department. This dual oversight arrangement was an unusual, in fact unprecedented, one, and rather difficult. The two 'founding fathers', foreign minister Alexander Downer and environment minister Malcolm Turnbull, had different starting points, and one, Downer, soon lost interest, ceding

[46] The INCAS support program had originally been allocated a total of A$10 million within the A$100 million IAFCP budget envelope. As noted in the previous section, a 2009 draft version of the program's design document indicated a budget requirement of more like A$15 million, but this estimate had no status and was not reflected in allocations.

decisions to Turnbull. The latter was less used to delegating to officials, since he did not normally manage a large international aid budget. Much detail therefore went to ministerial level, and continued to do so under a succession of subsequent ministers. It was not until April 2013, a month after the disappearance of the Department of Climate Change and two months before the expiry of IFCI's multi-year budget allocation, that the foreign minister effectively regained sole decision-making power.

As for the two public service agencies concerned, AusAID and the Department of Climate Change, each had a bias: one toward economic and community development, and localised payment-for-environmental-services approaches; the other toward national-level carbon accounting and generalised payment-for-performance approaches. AusAID led on the overall program of bilateral cooperation and on KFCP; the Department of Climate Change on support for INCAS. The two agencies tended to shadow each other carefully in order to protect their ministers' or agencies' interests but essentially divided labour. Where they felt unsure of each other's actions, the default response was to delay or block. There was some convergence between KFCP and support for INCAS only in the latter stages, as the level of ambition of the former was scaled down and as the Indonesian government struggled to meet a Norwegian Letter of Intent condition which required a credible, if basic, carbon account for the pilot province of Central Kalimantan.

Given its size, IAFCP was unusual within the Australian aid program in that it was managed as a single program, with Aurecon as support contractor. A deliberate decision was taken not to contract each component of the partnership separately, so as to maintain flexibility and overall cohesion. The management model was quite expensive at the outset as it involved the engagement of a handful of senior, long-term advisers, on the assumption that a heavy up-front investment of expertise would stand the partnership in good stead. In addition, the management structure did not initially contain within it strong capacity for the management of major infrastructure projects. The latter was to have been incorporated after the initial design phase, but in fact was not incorporated until the final two years of the program. Slow program implementation meant that the up-front expense became an ongoing one, and a likely source of resentment on the Indonesian side. Nevertheless, the flexibility inherent in the management model was useful, particularly, and ironically, once elements of the program began to be eliminated.

The integration of IAFCP into the pre-existing bilateral aid program was initially difficult, as the initiative was essentially thrust upon Australia's embassy, with funding

from a central allocation, and with additional staff outposted from Canberra. Within a year or so, and particularly following Prime Minister Kevin Rudd's visit to Indonesia in mid-2008 and the announcement of IAFCP, it came to be quite fully 'owned' by the bilateral program, and its objectives incorporated into the Australia-Indonesia bilateral aid strategy. Its funding, while still from central sources, came to be part of the aid envelope for Indonesia. Once KFCP began to perceived as a problem project, and IFCI approached its end date with no prospect of renewed funding, the process just described went into reverse gear—a rapid and painful turnaround in the space of a few years.

6.2 Indonesian government

There was also a dual structure on the Indonesian side, with the Ministry of Forestry as executing agency and the National Development Planning Agency, BAPPENAS, as lead agency and, effectively, gatekeeper. Even within the Ministry of Forestry there were multiple and sometimes competing centres of interest. Also, as noted above, LAPAN and the Geospatial Information Agency were involved with respect to forest-cover mapping. Moreover, also noted earlier, mid-way through the life of IAFCP and as a result of the Norwegian Letter of Intent, a REDD+ Task Force was established within the President's Delivery Unit for Development Monitoring and Oversight, and later formed the nucleus of the national REDD+ Agency[47].

Internal communication among these various Indonesian agencies was often not good, lines of authority were generally unclear and in flux, and information was often not readily shared. It was easy enough for an international donor to make short-term progress in one area or another by forming an alliance with certain organisations, parts of organisations or individuals, but this tended to be at the expense of more lasting progress. In short, REDD+ brought together strange bedfellows on both sides of the partnership, which made for slow progress, squared.

6.3 Joint partnership governance

The IAFCP was overseen by a bilateral steering committee that met only sporadically. In reality the program was planned through direct interaction between Australian officials and, for the most part, the Indonesian Ministry of Forestry. The steering committee was, however, a bottleneck, and a structure more typical of, and appropriate for, a traditional development program. It tended to be a place where grievances were, if not discussed, then placed on the table as obstacles. For example, the decision to run KFCP's performance-based payments through a World Bank trust fund was not greeted with

[47] Later still, in January 2015, the Widodo administration transferred the functions of the REDD+ Agency to what is now a combined Ministry of Environment and Forestry.

enthusiasm by Indonesian agencies represented in the steering committee. Most things that happened involved delays and ultimately concessions on either the Australian or Indonesian side. The fact that some major items on which Indonesian agencies had made grudging concessions did not in the end proceed as planned, such as the Sumatra demonstration activity and the World Bank trust fund, must have been galling to them.

Following the emergence of the Norwegian Letter of Intent process in 2010, and also the operationalisation of the Forest Investment Program under the multilateral Climate Investment Funds, the Australian program of assistance began to seem less impressive in scale, and also more bureaucratic. To an extent, this meant things could proceed more easily. The Indonesian government's interest in the management arrangements of the IAFCP, and the fate of the money in the World Bank trust fund, tended to diminish. Their interest was now directed primarily toward actions that would help meet Norwegian benchmarks. That included INCAS's national work, INCAS's work on the carbon account for Central Kalimantan as the pilot province under the Letter of Intent, and KFCP's work in the same province. In fact, their interest in site-specific demonstration activities in Central Kalimantan was probably greater than Norway's own: the Norwegian government itself seemingly did not attach a great deal of value to them.[48]

7. Conclusion

Some observers have described the recent history of REDD+ as a 'narrative of disappointment' (Prince's Rainforest Project 2012). That is certainly an apt description of the history of IAFCP—and particularly of KFCP. IAFCP did not merely fall short of what now appear to be risible early ambitions; it fell short of anything resembling reasonable ambitions for a A$65 million, seven-year investment, despite having almost five years' worth of clear air.

Were local-level obstacles to blame? Not really. Was this a case of 'aid-ification'? Not really, though perhaps this charge cannot be completely evaded. The fundamental problem with KFCP was an uncertainty of purpose, leading to an excessive preoccupation with scientifically precise carbon measurement and the whole REDD+ financing jigsaw puzzle at the national and global level. The latter preoccupations displaced what should have been the central preoccupation: the use of incentive payments at the local level, and the linking of those payments to rough proxies for

[48] In a speech delivered in August 2012, the head of Norway's REDD+ initiative spoke of his scepticism about project-based approaches to REDD+, saying, 'we believe that approaches that focus on geographically limited projects only, with no link to the national and lower jurisdictional level like states, are bound to fail' (Pharo 2012).

emission reductions. It was this failure to accord centrality to payment for performance, not the predilections of the aid professionals involved in its implementation, that caused KFCP to operate primarily as a local economic development and environmental rehabilitation project rather than as a holistic REDD+ project.

As for Australia's support for INCAS, the problem here, a lesser but still major one, was a failure to perceive that the most effective and distinctive role for Australia was at the provincial level in Central Kalimantan. The INCAS support program could have progressed much further than it did with the provincial carbon account, which progress could then have been leveraged at the national level. At the same time, it could have relieved KFCP of the distracting and unnecessary burden of scientific work, allowing it to devote full attention to establishing an equitable and effective payment-for-performance structure. In time, if successful, INCAS's detailed MRV work could have converged with KFCP's practical work on incentives for action, to allow an increasingly precise estimate of the cost of action per unit of emissions avoided.

Given five years' clear air over again, and an opportunity of the kind presented by IAFCP, what might a bilateral donor like Australia do differently? Five suggestions follow.

First, *concentrate effort on the main game*. The main game for a donor with substantial funding at its disposal, a willing partner government and a large, clearly defined landscape in which to operate should be to work out how to counter the specific emission drivers in that landscape with financial incentives for cooperative action, and what this actually costs in practice. This does not require arriving immediately at a precise estimate of the cost of action per tonne of emissions avoided. Work on measurement science, therefore, should be separated from, though designed eventually to converge with, work on payment for performance.

Second, *ensure the participation of governments*. Sub-national governments, in particular, cannot reasonably be excluded from participation in demonstration activities. As a working strategy in the absence of a national or sub-national REDD+ financing architecture, proximate governments (in the case of Indonesia, district or provincial) might be dealt into demonstration activities in 'taxing' mode rather than in control mode. These governments do need to experience some of the costs and benefits associated with of REDD+ interventions, but they do not need to run them and in particular cannot be expected to calibrate incentives at the community level. If receiving contingent, tax-like revenues from demonstration activities—possibly hypothecated for some related purpose in the first instance—they will have a joint interest with

communities in seeing results and can be expected to take facilitative measures, with some external technical support where required.[49]

Third, *maintain policy neutrality*. Where a bilateral donor wishes to become engaged in national REDD+ policy development processes, they must avoid fixating on specific policy options, accept that technical and policy advice, including for the development of MRV systems like INCAS, will be drawn from multiple international sources, and be prepared to provide consistent, responsive and flexible support based on long-term relationships. Site-level activities should neither pre-empt national policy decisions nor allow indecision to create unnecessary delays.

Fourth, *vest responsibility for program development, financing and management in a single entity*. This is desirable on both sides of a partnership but essential on the donor side in order to avoid lowest-common-denominator effects. The fact that two Australian public sector agencies with different objectives and biases were involved in the conception and implementation of IAFCP certainly tended to create such effects. KFCP might actually have been more instructive in the context of the climate change negotiations had it been less in line with the preferences of Australia's Department of Climate Change—that is, less preoccupied with financing policy and carbon measurement. Likewise Australia's support for INCAS might have achieved more distinctive outcomes if it were more aligned with KFCP as a practical demonstration activity. At the same time, the requirements of a possible global or regional emissions trading regime were, or were supposed to have been, fundamental to the design of KFCP, so a climate change negotiator's perspective was essential to complement the international development perspective. A single, special-purpose entity on the Australian side, containing such complementary but not warring perspectives, might have made better progress.

Fifth, *practise transparency and accountability*. It is unfortunately the case that most bilateral development assistance programs, particularly those involving the investment of much political capital, are not conceived and implemented very transparently after the fanfare around their announcement has faded. Even so, IAFCP was an extreme case. To gain a partial and still unsatisfactory sense of its partnership's activities, achievements, shortcomings and expenditures, one has to trawl through a scattered and motley collection of information sources. Individually, these tend to convey little; collectively, they convey a vague and sometimes confusing picture. Some of the most concrete

[49] In the long run, it might well be the case that the best role for governments at all levels is to tax REDD+ financing flows rather than seek to mediate or generate them as was envisaged under Indonesia's 'Regional Incentive Mechanism'. Even if this is not accepted as a general point, such an arrangement seems appropriate in the development and implementation of demonstration activities under conditions of uncertainty about long-term financing architecture.

information about IAFCP has been made public unwillingly, under Freedom of Information legislation.[50] If the relevant Australian agencies, and ultimately their ministers, had accepted and been held to higher standards of transparency and accountability in connection with IAFCP, perhaps it would not have lost its way so badly, or for so long.

It might well be that bilateral donor agencies should simply think twice before getting into the REDD+ assistance business at all, since multilateral agencies are well able to access and supply most of the necessary expertise, and are also much less subject to the vagaries of policy change. However, bilateral donors sometimes do hold a monopoly over certain sorts of public sector expertise and, more importantly, as sovereign governments are sometimes presented with opportunities of a kind much less likely to be made available to multilateral organisations. Australia had such opportunity in 2007 and the years following, and should certainly not have passed it up. IAFCP in general and KFCP within it were not inherently foolhardy enterprises. At the same time, opportunities afforded by politics are obviously vulnerable to politics, so must be acted upon decisively.

In sum, IAFCP might have made more substantial and instructive progress, even in its relatively limited five-year window, if it had given over-riding priority to the timely execution of emission-reducing interventions linked to the delivery of proportional payments for roughly-measured emission reduction actions to both communities and the Kapuas district government, while pursuing in parallel a peat-carbon research agenda through the INCAS support program with a view to refining cost estimates over time. That it did not do so is responsible for its pre-emptive cancellation in early 2013, but cannot entirely be blamed upon the habits of the international aid 'industry'. More likely, it reflects an implicit view in some quarters that demonstration projects are a sideshow or, worse, a distraction. This view, unfortunately, is most likely to be encountered among people from the climate change mitigation world—and leaves entirely out of account the psychology of both REDD+ investors and those whose local actions might avoid emissions.

[50] As noted earlier, the identity of the person who requested this information in 2013 is unknown.

Photo: Ministry of Forestry, Indonesia

References

Angelsen, Arild, Maria Brockhaus, William D. Sunderlin and Louis V. Verchot, eds. 2012. *Analysing REDD+: Challenges and choices*. Centre for International Forestry Research, Bogor, Indonesia.

Angelsen, Arild. 2013. 'REDD+ as performance-based aid: General lessons and bilateral agreements of Norway'. United Nations University – World Institute for Development Economics Research (WIDER) Working Paper No. 2013/135. December 2013.

Atmadja, Stibniati S., Yayan Indriatmoko, Nugroho Adi Utomo, Mella Komalasari and Andini Desita Ekaputri. 2014. 'Kalimantan Forests and Climate Partnership, Central Kalimantan, Indonesia'. In Sills, Erin O., Stibniati S. Atmadja, Claudio de Sassi, Amy E. Duchelle, Demetrius L. Kweka, Ida Aju Pradnja Resosudarmo and William D. Sunderlin, eds. 2014. *REDD+ on the ground: A case book of subnational initiatives across the globe*. Centre for International Forestry Research, Bogor, Indonesia.

Australian Government 2007a. 'Scope of Initiative: Global Initiative on Forests and Climate'. Budget narrative prepared for the 2007-08 Additional Estimates process.

Australian Government. 2007b. *Report of the Task Group on Emissions Trading*. Prime Ministerial Task Force on Emissions Trading.

Australian Government. 2008. *Australia-Indonesia Partnership Country Strategy 2008-13*. Australia-Indonesia Partnership. June 2008.

Australian Government. 2011. 'Community concerns with the KFCP'. Response to open letter from Yayasan Petak Danum (see YPD 2011 below). 20 April 2011.

Australian Government. 2013a. *Australia's fast-start climate finance, June 2010 – July 2013: investing in effective and sustainable climate outcomes*.

Australian Government. 2013b. *Australia's Sixth National Communication on Climate Change: A report under the United Nations Framework Convention on Climate Change*. Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education. August 2013.

Barr, Christopher, Ahmad Dermawan, Herry Purnomo and Heru Komarudin. 2010. 'Financial governance and Indonesia's Reforestation Fund during the Soeharto and post-Soeharto periods, 1989-2009: A political economic analysis of lessons for REDD+'. Occasional Paper. Centre for International Forestry Research.

BOS Foundation. 2008. 'Brief summary of Mawas Conservation Program Initiatives'. Borneo Orangutan Survival Foundation. 14 November 2008.

Climate Investment Funds. 2012. *Investment Plan for Indonesia*. Prepared for the 5 November 2012 Meeting of the Forest Investment Program Sub-Committee, Istanbul, Turkey. 10 October 2012.

Department of Climate Change 2010. 'Why we need the International Forest Carbon Initiative.' Web page (archived at http://www.climatechange.gov.au/international/actions/australias-contribution/reducing-emissions-deforestation-and-forest-degredation/international-forest-carbon-initiative).

Department of Foreign Affairs and Trade. 2013. *Documents about decisions made by the government not to the extend the life of key programs under the Kalimantan Forests and Climate Partnership beyond July 2013 and not to commence with the Sumatra Forest Carbon Partnership*. Released under the Freedom of Information Act 1982. Request 13/19377. Australian Department of Foreign Affairs and Trade. 11 December 2013.

Downer, Alexander and Malcolm Turnbull 2007a. 'New global system to monitor forests'. Media release. Minister for Foreign Affairs and Minister for the Environment and Water Resources. Sydney, Australia. 23 July 2007.

Downer, Alexander and Malcolm Turnbull 2007b. '$10 million to help protect Indonesia's forests'. Media release. Minister for Foreign Affairs and Minister for the Environment and Water Resources. Sydney, Australia. 23 July 2007.

Downer, Alexander and Malcolm Turnbull 2007c. 'Indonesian forests partnership to reduce greenhouse gas emissions'. Media release. Minister for Foreign Affairs and

Minister for the Environment and Water Resources. Sydney, Australia. 9 September 2007.
Euroconsult Mott MacDonald and Delft Hydraulics. 2007. *Inception Report: strategy, approach and work plan.* Master plan for the conservation and development of the Ex-Mega Rice Project area in Central Kalimantan. Royal Netherlands Embassy, Jakarta, Indonesia.
Euroconsult Mott MacDonald and Delft Hydraulics. 2009. *Guidelines for the rehabilitation of degraded peat swamp forests in Central Kalimantan*, second draft, 31 January 2009. Master plan for the conservation and development of the Ex-Mega Rice Project area in Central Kalimantan. Royal Netherlands Embassy, Jakarta, Indonesia.
Friends of the Earth. 2013. 'Burning questions about the Kalimantan Forests and Climate Partnership'. Open letter to Bob Carr, Minister for Foreign Affairs and Trade; Melissa Parke, Minister for International Development; and Mark Butler, Minister for Climate Change. Friends of the Earth Australia and Friend of the Earth Indonesia (WALHI). 21 August 2013.
Garnaut, Ross. 2008. *The Garnaut Climate Change Review*. September 2008.
Government of Indonesia. 2007. *National Climate Change Action Plan*.
Government of Indonesia. 2008. *Reducing Emissions from Deforestation and Forest Degradation in Indonesia.* Indonesia Forest Carbon Alliance (IFCA) Consolidation Report. Forestry Research and Development Agency. Ministry of Forestry.
Government of Indonesia. 2009. *Green Paper: Economic and Fiscal Policy Strategies for Climate Change Mitigation in Indonesia*. Prepared by the Indonesian Ministry of Finance and the Australia-Indonesia Partnership.
Government of Indonesia. 2013. *Interim estimates of CO_2 emissions for Central Kalimantan: a simple CO_2 emissions account from deforestation and peat decomposition components for Central Kalimantan*. Forestry Research and Development Agency, Ministry of Forestry. December 2013.
Governments of Indonesia and Norway. 2010. 'Letter of Intent between the Government of the Kingdom of Norway and the Government of the Republic of Indonesia on "Cooperation on reducing greenhouse gas emissions from deforestation and forest degradation"'. Jakarta. May 2010.
Hooijer, Al, Sue Page, Peter Navratil, Ronald Vernimmen, Marnix van der Vat, Kevin Tansey, Kristina Konecny, Florian Siegert, Uwe Ballhorn and Nick Mawdsley. 2014. 'Carbon Emissions from Drained and Degraded Peatland in Indonesia and Emission Factors for Measurement, Reporting and Verification (MRV) of Peatland Greenhouse Gas Emissions: A summary of KFCP research results for practitioners'. Scientific Report, Kalimantan Forests and Climate Partnership. May 2014.
Howard, John, Alexander Downer and Malcolm Turnbull. 2007. 'Australia to lead the world: Global Initiative on Forests and Climate'. Media release. Prime Minister, Minister for Foreign Affairs and Minister for the Environment and Water Resources. Canberra, Australia. 29 March 2007.
IAFCP. 2008. *The Indonesia Australia Forest Carbon Partnership Facility (IAFCP Facility) Facility Design Document*. 17 December 2008
IAFCP. 2009a. *Kalimantan Forests and Climate Partnership (KFCP) Design Document*.
IAFCP. 2009b. *Draft Grand Design for Indonesia's National Carbon Accounting System.* Released by the Forest Planning Agency, Ministry of Forestry, Indonesia.
IAFCP. 2011. *Independent Progress Report.* March 2011.
IAFCP. 2012. *Regional Environmental and Social Assessment.* Kalimantan Forests and Climate Partnership.
IAFCP. 2014a. *Measuring, Reporting and Verifying Emissions Reductions at the National Scale.* Lessons for Policy and Practice.
IAFCP. 2014b. *Practical lessons from the field: a synthesis of eight lessons learned papers from the KFCP REDD+ demonstration activity.*
IAFCP. 2014c. *The Remote Sensing Monitoring Program of Indonesia's National Carbon Accounting System: Methodology and Products.*

Lubis, Zulkifli B. 2013. 'Social Mapping of Access to Peat Swamp Forest and Peatland Resources'. Kalimantan Forests and Climate Partnership. Working Paper. December 2013.

Milich, Lenard, Djamilah, and Ali Said. 2014. *KFCP Socio-Economic Impact Study*. Kalimantan Forests and Climate Partnership.

Olbrei, Erik and Stephen Howes. 2012. 'A very real and practical contribution? Lessons from the Kalimantan Forests and Climate Partnership', *Climate Law*, Volume 3, Issue 2: 103-137.

Pharo, Per F.I. 2012. 'Performance Payments and Green Growth: Perspectives on REDD+'. Speech delivered by the director of the Government of Norway's International Climate and Forest Initiative. Mato Grosso, 23 August 2012.

Prince's Rainforests Project. 2012. *Interim REDD+ Finance: Current Status and Ways Forward for 2013-2020*. http://www. pcfisu.org/wp-content/uploads/2012/11/Nov-2012-Interim-REDD+-Finance-Current-Status-and-Ways-Forward-2013- 2020-Princes-Rainforests-Project.pdf

Ritzema, Henk, Suwido Lim, Kito Kusin, Jyrki Jauhiainen and Henk Wösten. 2014. 'Canal blocking strategies for hydrological restoration of degraded tropical peatlands in Central Kalimantan, Indonesia'. *Catena* 114: 11-20.

Rosenberg, Anja and Jane Wilkinson. 2013. *Demonstrating Approaches to REDD+: Lessons from the Kalimantan Forests and Climate Partnership*. Climate Policy Initiative. San Giorgio Group Case Study. November 2013.

Rudd, Kevin. 2008. 'Australia-Indonesia joint leaders' statement on climate change, with the President of the Republic of Indonesia'. Media release. Prime Minister. Jakarta, Indonesia. 13 June 2008.

UK Government. 2006. *Stern Review: The Economics of Climate Change.*

UNFCCC. 2008. *Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007, Addendum, Part Two: Action taken by the Conference of the Parties at its thirteenth session*. Incorporating the Bali Action Plan. FCCC/CP/2007/6/Add.1, 14 March 2008.

Week, David, Rachael Diprose and Timothy Jessup. 2014. 'From Global Policy to Local Practice: Lessons from Using Village Agreements for a Community-managed REDD+ Pilot'. Working Paper, Kalimantan Forests and Climate Partnership. April 2014.

Wong, Penny. 2008. 'Australian technology chosen for Clinton climate project'. Media release. Minister for Climate Change and Water. Canberra, Australia. 18 February 2008.

Wong, Penny. 2010. 'Indonesia and Australia announce $30 million Sumatra Forest Carbon Partnership'. Media release. Minister for Climate Change and Water. Canberra, Australia. 2 March 2010.

YPD. 2011. 'Community Concerns with the KFCP'. Open letter to the Australian Delegation to Central Kalimantan. Yayasan Petak Danum Kalimantan Tengah. 24 February 2011.

Annex 1: IAFCP timeline

When	*Australian context*	*IAFCP-related events*	*Indonesian context*
		2007	
March	The A$200 million Global Initiative on Forests and Climate (GIFC) is announced by Prime Minister John Howard.		
April	Environment minister Malcolm Turnbull visits Indonesia.		
May	The Prime Ministerial Task Group on Emissions Trading submits its report to Howard government.		
July	Australia hosts a High-Level Meeting on Forests and Climate, Sydney, and announces Australian leadership to establish a Global Carbon Monitoring System.	Australia announces an initial A$10 million GIFC allocation to Indonesia.	
September		The A$30 million Kalimantan Forests and Climate Partnership (KFCP) is announced at the APEC meeting, Sydney.	
October		Australia and Indonesia agree on a Subsidiary Arrangement, under their existing development cooperation umbrella agreement, on GIFC-related cooperation.	
November	Election of Rudd Labor government.		
December	Australia ratifies Kyoto Protocol.		Indonesia hosts UNFCCC COP 13, Bali.
		2008	
February	Rebadging of GIFC as the International Forest Carbon Initiative (IFCI).		
March		KFCP design mission undertaken.	
June	Australia-Indonesia Partnership Country Strategy 2008-13 finalised, with climate change as a new priority.	The Indonesia-Australia Forest Carbon Partnership (IAFCP) is announced by Australian Prime Minister Kevin Rudd and Indonesian President Susilo Bambang Yudhoyono.	
August			Publication of the Indonesia Forest Carbon Alliance Consolidation Report.
September	Submission of the final report of the Garnaut Climate Change Review.		

2009			
June		The KFCP design process is finalised. Australia capitalises an A$8.4 million Kalimantan Forests and Climate Trust Fund at the World Bank's Jakarta office to finance performance-based payments.	
September			President Yudhoyono makes emission reduction commitments at the Pittsburgh G20 summit.
October			President Yudhoyono is re-elected for a second five-year term.
December	Malcolm Turnbull, leader of the Australian Coalition opposition, is deposed by Tony Abbott.		
December	Australia announces A$120 million in fast-start climate change financing for REDD+ at UNFCCC COP-15, Copenhagen.		
2010			
March		The $30 million Sumatra Forest Carbon Partnership (SFCP) is announced.	
May	The Rudd Labor government increases overall IFCI funding from A$200 million to A$273 million, and extends IFCI by one year to mid-2013.		The Indonesia-Norway Letter of Intent is signed. A REDD+ Task Force is established, led by the President's Delivery Unit (UKP4).
June	Kevin Rudd is deposed by his deputy, Julia Gillard, who calls an immediate election. Labor is re-elected by a narrow margin.		
June	Australia announces a A$599 million fast-start climate change financing package, including the A$120 million in previously announced REDD+ financing.		
December		An additional A$30 million fast-start allocation to IAFCP is announced, bringing the total to A$100 million.	

2011			
February			A consortium of Central Kalimantan NGOs publishes an open letter articulating concerns about KFCP implementation.
March		An IAFCP Independent Progress Review is completed.	
May			Indonesia places a two-year moratorium on the awarding of new licenses to convert primary natural forests and peatlands for agricultural or other purposes.
2012			
		KFCP village agreements negotiated over the preceding year take effect.	
March		Australia advises Indonesia of its intention not to proceed with SFCP.	
April	ANU researchers publish a working paper critical of KFCP's progress against objectives, which attracts media attention.	Long-delayed KFCP work on a benefit-sharing mechanism commences.	
2013			
February		Australia advises Indonesia of its intention to extend IAFCP to mid-2014, with greatly reduced scope.	
April		Australian foreign minister Bob Carr agrees to 'phase out non-performing elements of IAFCP' and terminate the program with effect from mid-2014. The canal blocking and benefit-sharing elements of the project are cancelled. Australia reduces IAFCP's funding allocation from A$100 million to A$65 million.	
May	Australian media note the defunding of IAFCP in the 2013-14 budget.		The Indonesian government extends its forest conversion moratorium for a further two years.
June	Julia Gillard is deposed by Kevin Rudd.	Kalimantan Forests and Climate Trust Fund monies are redirected to another, unrelated World Bank-funded program.	

July	Kevin Rudd visits Indonesia a week after regaining the prime ministership. His talks with President Yudhoyono focus on regional people smuggling.		
August		Australia and Indonesia agree on a revised Subsidiary Arrangement with reduced scope and a one-year extension.	Indonesian NGOs publish an open letter critical of the manner of KFCP's closure.
September	Election of Abbott Coalition government.		The National REDD+ Agency is established.
2014			
June		IAFCP formally ends.	
November	Environment Minister Greg Hunt hosts an Asia-Pacific Rainforest Summit to discuss 'practical actions to reduce forest loss while recognising the development aspirations of rainforest communities'. Governments agree to work together on an Asia-Pacific Rainforest Recovery Plan containing conservation, restoration and sustainable use targets for 2020. No mention is made of climate change. Australia announces an allocation of A$6 million for measures to combat trade in illegal timber.		
December	Abbott Coalition government announces A$200 million pledge to the Green Climate Fund, despite previously having ruled this out. Environment Minister Greg Hunt asserts, erroneously, that the money will be earmarked for 'stopping deforestation in the Asia-Pacific region'.		

Annex 2: Progress of the Kalimantan Forests and Climate Partnership

An account of the progress achieved by KFCP up to the point of IAFCP's closure in mid-2014 is provided below against headings corresponding to the six project elements identified in section 3.3, and a sustainability heading. Shortcomings at the point of project closure are also discussed.

A2.1 Peatland stabilisation, rehabilitation and protection

KFCP's priorities under this heading were three: fire prevention and control, the cultivation of native seedlings of various species for peatland stabilisation, and the engagement of local communities in the blocking of small, hand-dug canals (*tatas*) and in preparations for the construction and maintenance of dams on larger canals. Negotiations on a series of village agreements commenced in early 2011. Two rounds of agreements were eventually signed, the first with nine[51] villages commencing January 2012 and concluding June 2013, the second with seven villages commencing July 2013 and concluding June 2014. Two villages opted out in the second round, one owing to 'pressures from external actors wanting to introduce oil palm' and the other to 'a long history of internal political splits in its leadership' (Week, Diprose and Jessup 2014: 44).

A dry-season fire prevention and response system was established in each participating village. By 2012, there was said to be evidence that the use of fire for land clearance was less frequent and better managed (IAFCP 2014b: 41).

About 2.6 million seedlings of various native tree species were raised in 35 community nurseries and planted over almost 2,000 hectares of degraded peatlands, with planting decisions informed by commissioned silviculture research. (Natural regeneration techniques were also applied where possible.) This constitutes a significant achievement for a community-based reforestation program, which is likely to inform the development of other such reforestation efforts in the EMRP area and in other parts of Indonesia. However, even with the large downward revision of KFCP's original reforestation target, from about 80,000 hectares to 3,000 hectares—of which 2,000 were actually reforested—the effort invested in reforestation was disproportionate relative to that invested in the rewetting of peatlands through canal blocking.

[51] Seven villages in the first instance, and their hamlets, but administrative subdivisions in mid-2013 increased the number of villages covered by agreements to nine without changing the number of households involved.

Much hydrological analysis and planning was undertaken for the blocking of canals, large and small. A draft 'peatland strategic rehabilitation plan' for the southern half of the project zone, Block A North West, was completed in 2009 even before the KFCP design document was finalised, and was summarised in an attachment to that document (IAFCP 2009a: 4-1). This stated that more than 350 dams of both the 'hard' (wooden box or compacted peat) and 'soft' varieties (wooden palisades designed to reduce, but not completely block, water flow) would be required to block the 300 kilometres of canals found in the area, assuming height differences were kept to around 20 centimetres. It was noted that 'mobilising heavy equipment (excavators and bulldozers) … is a prerequisite for the construction of compacted peat 'hard' dams'. The total cost of canal blocking was estimated to be around A$8 million.

A total of 64 narrow, hand-dug canals or *tatas* were identified as priorities for initial blocking, of which a majority were not being actively used by the local population (IAFCP 2014b: 34). These ranged in length from 165 metres nine kilometres. Community consultations were held and compensation paid to a number of *tatas* owners who agreed to block *tatas* for an initial three-year period. Detailed plans were prepared for the blocking of the major canal that extends due north into the relatively intact peatlands in Block E (SPU-7, known as the 'Hell Canal'), and a contractor engaged to assist with this and other work requiring mechanical excavation and compacting.

The canal-blocking component of the project was abandoned in 2013, seemingly for fear of the lock-in effect of proceeding. Australia's embassy in Jakarta communicated this fact to the Indonesian government at all levels in June 2013 (Department of Foreign Affairs and Trade 2013: 109-112), a month after advising the same range of counterparts that Australia wished to hold consultations on IAFCP 'program sustainability and a possible extension of the program' (Department of Foreign Affairs and Trade 2013: 50). Only eight *tatas* were blocked, and another 17 partially blocked. 12 of 189 planned palisades were constructed, each 25 metres in length, as the first step in blocking the Hell Canal. KFCP purchased these for Rp22 million (US$2,200) per installed unit, but proceeded no further with the blocking of this canal.

Payments totalling some A$2.7 million (Week, Diprose and Jessup 2014: 31) were made for the completion of 'work packages' self-managed by villages, on the analogy of payments made to villages for infrastructure works under Indonesia's PNPM Mandiri. Payments made under village agreements were mainly for environmental services (about A$2 million up to

mid-2013 according to Milich, Djamilah & Said 2014: 32) including the production of seedlings and of palisades for canal blocking. Over 90 per cent of households in the project zone received such payments, averaging about Rp5.5 million (US$550) over 25 months (Milich, Djamilah & Said 2014: v), which was equivalent to 5.5 months' average household consumption expenditure.

All up, it appears that at most A$250,000 was paid to villages for activities related to the blocking of *tatas* and the construction of palisades, about one-tenth the total amount paid for environmental services (Milich, Djamilah & Said 2014: 28) and probably less than was provided for similar activities by the much smaller, Dutch-funded Central Kalimantan Peatlands Project, which terminated in December 2008 (IAFCP 2009a: 21). It is not possible to assess how likely it is that the few *tatas* that were blocked, and whose owners in some cases received compensation payments, will remain blocked. It is reported, however, that a USAID-funded project[52] is now proceeding to use KFCP-developed *tatas* blocking designs and approaches in one part of the KFCP zone.

A surprisingly small proportion of KFCP's A$47 million budget—about A$13 million, or one-third of final project expenditure, was allocated to canal-blocking, reforestation and related community engagement work (Rosenberg & Wilkinson 2013: 14).[53] Of this, it appears that not much more than A$2 million was actually spent.

Canal-blocking was fundamental to the project's aims as it addressed the primary cause of the project zone's emissions, rather than derivative causes such as fire and illegal logging. Together with the termination of the performance-based payment component of the project (see below), the termination of the canal-blocking component marked the end of the project's life as a REDD+ demonstration activity, even though it continued for another year as an economic and community development, public sector capacity building and research program.

A2.2 Promoting alternative livelihoods

This element of KFCP was designed and piloted in 2009-10 and scaled up to operate in two phases of full implementation in 2013 and 2014, following completion of preparatory activities. It aimed, originally, to divert people from, or compensate them for the inability to

[52] The Indonesia Forest and Climate Support Project.

[53] For comparison, in KFCP's 2009 project design process, A$18 million of the project's then A$30 million budget was allocated to the project's component 1, which encompassed canal-blocking, reforestation, fire prevention and management, community engagement and also alternative livelihoods assistance.

continue, activities within peat swamp forest such as small-scale illegal logging, the construction or use of canals, and the use of fire for land clearance. It also came to play a substantial confidence-building role by delivering tangible benefits to participating households, whose income from payments for environmental services was in many cases relatively limited.

Preparatory activities beginning in 2009 included the running of farmer field schools to enhance rubber tapping and other relevant skills, which led to the formation of more than 70 farmer groups. Micro-credit training was also provided. Under the alternative livelihoods program, villagers were offered assistance in rubber cultivation, non-rubber agroforestry, aquaculture and livestock (poultry), with most opting for rubber cultivation. Rubber and mixed agroforestry plantations were established over a total area of about 1,300 hectares. It should be noted that neither the livelihoods program nor the reforestation program incorporated tree planting for timber supply, which might have helped to increase the availability of locally produced timber to meet local timber consumption needs, and would have lent itself readily to results-based financing based on some rate of exchange between trees planted and trees left standing.[54]

Over 1,600 households in seven villages participated in the alternative livelihoods program. It is not possible to ascertain from publicly-available documents how much funding was allocated to the program but it appears to have been in the range A$1-2 million, including preparatory activities.

A social and economic impact assessment conducted in April 2014 found evidence that KFCP-funded interventions had increased villagers' productive capacity and incomes with household impacts ranging from 'little' to 'immense' (Milich, Djamilah & Said 2014: iv). The study as initially released by the Indonesian Ministry of Forestry estimated that in a best-case scenario some households engaged in rubber cultivation as a result of the project might see incomes increase by an order of magnitude, from around Rp12 million or A$1,200 per year now to Rp150 million or A$15,000 per year in twenty years' time, depending on global rubber price movements and other factors.[55] Even assuming much lower prices, the study found that some households might see incomes more than double, to more than

[54] Some of the tree species that were used for replanting can be and are used for timber, and local timber needs are increasingly met by *gelam* (a type of *melaleuca*) sourced from shallow peatlands or non-peat soils. Nevertheless, it is not clear that there was any explicit consideration of how to manage demand for timber from replanted areas.

[55] The figure for the present is actually a consumption figure, which may be assumed to approximate income.

Rp30 million, or A$3,000 per year. However, these estimates appear not to have been robust: they were removed from a revised version of the study made available in September 2014, and replaced with the blander statement that 'the KFCP livelihoods program will contribute a significant amount of additional income to households over the next 20 years'. Suffice to say there is no guarantee that actual household income gains will be sustained, or anticipated gains realised.

Overall, the above assessment found that people 'reported they were better off overall in terms of livelihoods impacts, economic opportunities and assurance of land access, and in terms of other forms of welfare (e.g. assets).' (Milich, Djamilah & Said 2014: vii). It also found that KFCP-trained agricultural extension advisors and fire management teams were likely to have positive impacts beyond the life of the project. It should be noted that not only the livelihoods program but also the reforestation program and, to a lesser extent, the canal-blocking preparatory work, would have contributed to the achievement of the economic outcomes described.

For this element of the project, there was clearly little hope of linking project-financed inputs to measured emission reduction outcomes or even rough proxies thereof. Nevertheless, it would still have been possible to place livelihoods assistance squarely in the context of an emission reduction objective. This appears not to have been done. Livelihoods assistance was presented neither as an investment in REDD+ which would help generate subsequent cash payments, nor as a dividend of measures to reduce emissions. Rather, even in the minds of the project's implementers, the livelihoods component of the project was perceived as quite distinct from its payment-for-environmental-services component (Week, Diprose & Jessup 2014: 35). It was perceived primarily as a parallel intervention required in order to gain villagers' confidence and cooperation in the implementation of emission reduction measures. This perception was perhaps encouraged by the fact that much of the livelihoods assistance, while increasing incomes and building assets, was not really providing an alternative to activities likely to result in emissions.

A2.3 Developing and testing a benefit-sharing framework

Under the performance-based payment approach envisaged in KFCP's design, it was intended that communities would initially receive payments for the production of inputs to the achievement of emission reductions that would not be linked to measured reductions, such as tree planting for the purpose of peatland stabilisation, though reductions would be

measured to the extent possible. Subsequently, communities would receive payments for intermediate outcomes, namely the maintenance of the structures and processes established with initial support, but still with no direct tie to outcome measurement. Eventually, payments to communities would be tied to measured emission reductions.

The KFCP design document said:

> *Leading up to COP 15, learning about payment mechanisms will be more important than testing the actual payments, in order to quickly gain experience that can inform international negotiations on REDD and prepare the basis for REDD payments once emission reductions have been achieved' (IAFCP 2009a: 6).*

This was presumably meant to indicate, not that KFCP would eschew performance-based payment, but that it would accord priority to establishing equitable and effective payment distribution arrangements rather than entering into the mock production and sale of REDD+ credits. To this end, the KFCP design document called for the early establishment of an expert panel on benefit sharing to advise KFCP and stakeholders in the development of an appropriate benefit distribution regime. In all, around A$10 million was earmarked for distribution as performance-based payments.[56]

While KFCP did put in place a social safeguard system and a community grievance mechanism in connection with its payments to communities (IAFCP 2014b: 26), it was not until early 2012, after repeated postponements, that steps were taken to form the planned expert group on benefit-sharing, drawing on Indonesian and international expertise.[57] This was despite the fact that a World Bank-managed trust fund, the Kalimantan Forests and Climate Trust Fund, had been capitalised with A$8.4 million in 2009 for the purpose of making performance-based payments in the project's latter stages.

It might be argued that the delay in forming the expert group was in fact a result of the World Bank's involvement. The choice of the bank as intermediary, which eased disbursement pressures and placed the payment mechanism at an appropriate distance from the Australian government as project 'developer', necessitated the completion of an elaborate Regional Environmental and Social Assessment (RESA), which was not finalised until mid-2012 (IAFCP 2012). However, this long delay in the completion of the RESA need

[56] This comprised A$8.4 million deposited to the World Bank's Kalimantan Forests and Climate Trust Fund in 2009, and another A$2 million or so in payments for environmental services made through village agreements.

[57] The author, shortly before transitioning from his former role at AusAID to his present role at the Australian National University, provided advice to AusAID's Jakarta office on the terms of reference and membership of the expert group.

not have prevented the formation of the expert group or the trialling of performance-based payments from other KFCP budget lines.

In the end, the formation of the benefit-sharing expert group called for in KFCP's design, which was finally in process in late 2012, was aborted owing to the cancellation of KFCP's payment-for-performance element in early 2013. No true performance-based payments were ever made. The monies held in the World Bank trust fund were reallocated to the 'green' component of PNPM Mandiri in 2013, for purposes unrelated to REDD+. Any 'learning about payment mechanisms' would presumably have emerged from the discussions of the expert group, and from any work conducted or commissioned by it, had that group been formed as planned. There was in fact no obvious reason why it could not have been formed at the outset of the project for this purpose. There was certainly no need to wait for the completion of the RESA.

It should be acknowledged that payment-for-performance was practised in a narrow sense under KFCP. While some payments were purely input-based, others were tied to the completion of the work packages specified in village agreements, for outputs relating to reforestation (seedling production, planting and maintenance) and canal-blocking (blocking of *tatas* and the production of palisades for the Hell Canal). For example, KFCP paid only for seedlings whose root length exceeded 30 centimetres. Villages were also allowed to keep the monies held in 'retention funds', intended for contingencies, if they met all the performance requirements articulated in village agreements (Week, Diprose & Jessup 2014: 33-34).

The outputs purchased by KFCP through village agreements were described as 'proxies' (for emission reductions) in project-related documentation—but they were clearly not that.[58] Rather, villagers were effectively paid as piece-workers for reforestation and limited canal-blocking work, without perceiving any strong link between their income prospects and the achievement of the ultimate aims of KFCP. Payments for inputs were perceived as grants rather than as investments in the generation of performance-based payments. In addition, no performance-based payments of any kind were made available to government entities above

[58] A possible exception here would be area-based payments for reforestation. Apparently some such payments were made, though it is not possible to determine how important was this basis of payment relative to others used.

village level, particularly the Kapuas district administration, for measures within their competence.[59]

In the end, the RESA was perhaps the most useful, if unintended, output of the project's performance-based payment component. The RESA provides a thorough comparison of with-project and without-project scenarios, and is a valuable complement to the project design document with regard to questions of risk and sustainability. It will act as an important technical resource for the district-based Forest Management Unit (KPH), particularly in the event that the KPH becomes the locus of any further support for REDD+ interventions in the KFCP zone from other multilateral or bilateral sources.

A2.4 Developing and testing methodologies for measuring GHG emissions

KFCP supported a great deal of scientific and technical work, drawing upon both international and Indonesian expertise, which is expected to issue in a series of articles in peer-reviewed scientific journals.

A group of experts—the KFCP Peat and GHG [greenhouse gas] Group—was formed to review relevant science and develop methodologies for estimating carbon stocks and flows in tropical peat swamps, based on peat depth and other variables. A monitoring program was established to collect data on hydrology, peat characteristics, vegetation and fire in the project zone over the period 2010 to 2014. A peat and hydrology monitoring protocol was drafted. Villagers were involved in monitoring teams. Data from the monitoring program, together with historical records (e.g. on fire hotspots), were used for the design of the canal blocking program and to determine peatland GHG emission factors and perform biomass calculations for the purposes of INCAS. An optical remote sensing survey was undertaken, using Light Detection and Ranging (LiDAR) technology, to collect precise information on the topography of the peat dome, both to help estimate peat loss and to inform decisions on the siting of dams.

Support for the national-level INCAS (see section 4 below) was increasingly tied in the latter stages of IAFCP to the work being undertaken in Central Kalimantan. Indeed, arguably the most concrete output of IAFCP's support for INCAS was an interim, 'simple' carbon account for Central Kalimantan that was a requirement under Indonesia's 2010 Letter of

[59] This was despite the fact that an AusAID-funded water supply program was providing incentive payments to districts, through Indonesia's finance ministry. The district of Kapuas was among the beneficiaries of this program.

Intent with Norway. INCAS was reportedly able to meet Norway's requirements, under a tight deadline, 'by using an interim biomass mapping solution when the planned biomass classification method had to be abandoned due to the time available and inadequate data' (IAFCP 2014a). Forest data from KFCP vegetation monitoring plots helped enable INCAS's rapid, if rough, computation of a carbon account for Central Kalimantan (Government of Indonesia 2013: 7).

Costs associated with the measurement component of KFCP are, both in general and for specific elements, difficult to determine. It is known, however, that the Dutch government contributed at least A$0.8 million[60] toward the cost of the LiDAR survey—in what appears to be the only instance in which KFCP was able to mobilise resources from a third party (Rosenberg & Wilkinson 2013: 12). The total cost of the survey was twice this amount. An educated guess as to total expenditure on other measurement-related activities might put it as high as A$10 million.[61]

KFCP's key scientific output at the time of writing, shortly after project closure, is Hooijer *et al.* 2014, which summarises 'the key results and findings of the peatland GHG research conducted by KFCP and its implications for the measurement, reporting and verification (MRV) of GHG emissions from peatlands, in particular, emission factors for MRV'. At present, it would be difficult to assess the long-term scientific value of the research there summarised, and the more detailed research results yet to be published, though it seems likely to be high given the calibre of those engaged to undertake it.

However, no matter how profound the research findings mentioned above might turn out to be, KFCP was unable to determine a reference emissions level, or elaborate a menu of possible approaches to determining one, for the project zone or for the province as a whole (establishing a provincial reference level had been seen as important in order to facilitate detection of 'leakage'—i.e. displacement effects). Moreover, no linkages were made between the project's community-level interventions and its carbon measurement work. In particular,

[60] This is the figure cited in Rosenberg & Wilkinson 2013. A figure of A$1.3 million is given in Department of Foreign Affairs and Trade 2013 : 107.

[61] This might be an overestimate (MRV costs only accounted for about ten per cent of KFCP's original A$30 million budget) but the reasoning is as follows. Actual KFCP expenditure over seven years was somewhere toward A$40 million, excluding the amount contributed to the World Bank's Kalimantan Forests and Climate Trust Fund which was not used for the intended purposes (see section 3.4.8). Staffing and other overhead costs, including management fees, might have accounted for up to one-third of that, or A$13 million. Canal-blocking and reforestation might have consumed up to A$4 million, livelihoods assistance up to A$4 million (this is a guess, as no information is available on how much was spent by mid-2014), community engagement up to A$2 million, the LiDAR survey just under A$2 million, and project planning, design and review processes a further A$3 million or so. That leaves a balance in the vicinity of A$10-12 million.

no attempts were made to develop even crude proxies for emission reduction. Such proxies should have sufficed for the purpose of linking payments to something approximating emission reduction outcomes, if not for the purpose of generating robust, tradeable credits—which was no part of KFCP's purpose in any case.

The INCAS support program was barely linked to the measurement component of KFCP until the final years of the program. Once the INCAS support program had scaled down its ambitions, it found KFCP's scientific output useful. Arguably, all scientific work should have been undertaken under the auspices of the INCAS support program but focused on Central Kalimantan as the Pilot Province under the Letter of Intent. This would have increased the relevance and impact of INCAS and encouraged KFCP to link payments to results more broadly specified.

A2.5 Establishing and supporting a REDD+ institutional framework

KFCP's institutional development work was conducted mainly at the village level, where the project assisted with medium-term development planning, land use mapping, the establishment of structures for the management of funded activities and related finances, and the establishment of structures for external engagement—both with other villages and with the district government. Village-level activity governance arrangements for KFCP, involving separate activity management and monitoring teams, were established on the model of those used for Indonesia's PNPM Mandiri.[62] KFCP supported the creation of an inter-village communication and coordination body, initially focused on KFCP activities but later broadening in scope to cover village-level forest management generally (IAFCP 2014b: 24).

Owing to KFCP support, the villages in the KFCP zone were among the first in Central Kalimantan to produce medium-term development plans. KFCP also contributed to their implementation through its livelihoods program and especially through its support for rubber cultivation. With endorsement from the head of Kapuas district, KFCP supported participatory land use mapping and planning processes across the project zone in 2013 and 2014, drawing on high-resolution satellite imagery and other sources of information on existing land characteristics, land use practices and government zoning intentions. The resultant land use maps will assist communities in negotiations with the district government

[62] The Australian-funded Local Governance Innovations for Communities in Aceh (LOGICA) program was also a point of reference in formulating activity and payment management arrangements under KFCP.

and the national Ministry of Forestry over land use. Moreover, the mapping process helped to allay villagers' concerns that KFCP physical interventions might involve changes in land use entitlements.

KFCP, using the above land use maps, assisted six villages to apply for *Hutan Desa* (Village Forest) status. This involves the granting of community forest management concessions that provide certainty over a 35-year period about land use entitlements. By March 2014, two of the villages participating in KFCP had been successful in their applications to the national Ministry of Forestry for this status, which was granted for an initial period of five years (Week, Diprose and Jessup 2014: 13). A third village is, at the time of writing, awaiting the necessary ministerial decree. The village-level governance arrangements mentioned above were considered likely to be important for villages that succeeded in gaining *Hutan Desa* status. Had KFCP's participatory land use mapping process gained district-level endorsement and been completed much earlier, some misconceptions about the objectives and impact of KFCP might have been avoided. As it was, in early 2011 local NGOs signed an open letter to the Australian government expressing strong reservations about the possible impact of the project on local people's land use entitlements and livelihoods (YPD 2011).

At the district level, KFCP helped with the formation of the Kapuas District REDD+ Working Group, which brought villages together with the district government to plan and oversee, in the first instance, KFCP activities. The KFCP implementation unit, based initially in the provincial capital, Palangkaraya, and later in the district capital, Kuala Kapuas, also cooperated with and provided support to relevant provincial and district agencies, though less information is available on what outcomes might have been achieved at those levels. Most likely, few outcomes were achieved, as policy and institutional arrangements at all levels of government were in flux and could not really solidify in the absence of a clear vision at the national level of how REDD+ investments, whether from public or private sources, should be managed or regulated.

The Ministry of Forestry moved to operationalise Forest Management Units (KPH) at about the time the KFCP design was being developed. KPHs are site-level management units that, in the case of production and protection forests, are embedded in local government structures. They had been called for by the 1999 Forestry Law and figured prominently in Indonesia's Forest Investment Plan, submitted to the multilateral Climate Investment Funds as part of its bid for funding for REDD+ readiness and investment financing (Climate

Investment Funds 2012). KFCP helped establish such a unit within the Kapuas district administration, known as a KPH-L, where the 'L' denotes *hutan lindung* or protection forest. This was reportedly the first such unit to be responsible exclusively for the management of a protection forest area (IAFCP 2012: 39-40). KFCP also helped introduce the KPH-L concept to villages (IAFCP 2014: 24). However, it remains to be seen whether this unit or KPHs generally, which are said to be severely under-funded, will improve the quality of forest management or strengthen REDD+ implementation capacity.

For much of the life of KFCP, from roughly 2009 to 2012, engagement with the provincial and district administrations was deficient. KFCP was much more interested in working with the national Ministry of Forestry than it was in engaging the provincial and district governments in practical peatland rehabilitation measures. The provincial and district governments were treated largely as permission-givers, not as active partners in achieving the project's objectives or appropriate targets for senior-level engagement—still less as potential recipients of performance-based payments. The district administration might have played a significant role, for example, in the blocking of larger canals and, subject to capacity constraints, fire prevention and control.[63] Ultimately the Kapuas district administration embraced both the KPH-L concept and the objectives of KFCP. However, much time was wasted before this occurred—time that could have been well used to make better progress on canal-blocking and a related performance-based payments regime.

Overall, it does appear KFCP was successful in creating some local- and district-level consultative structures that will continue after its closure, but it cannot be said to have achieved a great deal in the policy and institutional arena.

A2.6 Learning and disseminating knowledge

Despite its conception as a 'learning activity, producing information and capturing knowledge from that information to be communicated to a number of distinct audiences' (IAFCP 2009a: 45), very little information was made publicly available on KFCP's activities for almost its entire life span, from 2009 to 2013. Remarkably, KFCP did not have a dedicated evaluation and learning component. A formal research program was eventually

[63] In terms of current capacity, canal blocking was the obvious priority. The district government had little capacity to reach more remote regions of the KFCP zone in order to undertake fire prevention and control activities. Nevertheless, district level facilitation and oversight of local fire control efforts would clearly increase their coherence and effectiveness.

defined for IAFCP, including KFCP, in 2012. This aimed to ensure that IAFCP's technical outputs, and broader lessons, were as far as possible captured in published documents.

AusAID had made substantial grants to the Bogor-based Centre for International Forestry Research (CIFOR), totalling A$13 million (Australian Government 2013b: 196), to support its comparative analytical work on REDD+ demonstration activities world-wide. While this funding was not tied to KFCP, it was provided on the understanding that CIFOR would pay close attention to the development of KFCP as part of its research, and effectively play a light, independent monitoring role in relation to the project. CIFOR did include KFCP among 23 projects in six countries which were to be studied as part of its global comparative study, but it was mentioned only in passing in the major output of the first phase of that study, the book *Analysing REDD+* (Angelsen et al. 2012). It was more fully described in a case study included in a later output of the global comparative study, the book *REDD+ on the ground* (Atmadja et al. 2014), but still from a largely external perspective. It must be viewed as unfortunate that CIFOR and KFCP personnel proved unable to develop the collaborative working relationships needed to support continuous engagement for their mutual benefit.

KFCP was included in a cursory way within the scope of the mid-term Independent Progress Review of IAFCP (IAFCP 2011: 15), but was at no point independently reviewed in its own right. No provision was made in its design, or budget, for an *ex-post* evaluation, and there has been no indication that the Office of Development Effectiveness of Australia's Department of Foreign Affairs and Trade, or that department's Indonesia bilateral desk, will undertake one.

The Climate Policy Initiative undertook a rough cost-benefit analysis of KFCP in 2013. This asserted that KFCP might have yielded positive returns somewhere in the range A$3.5-20 million per annum over a 30 year period (Rosenberg & Wilkinson 2013: 4). This analysis appears to have been undertaken as an independent exercise, though in cooperation with relevant IAFCP staff. It is opaque in its reasoning with respect to KFCP's actual costs and benefits, and assumes an implausibly high level of avoided emissions—a total of 780 million tonnes over 30 years, as compared with an original Australian government estimate of 700 million tonnes relative to the project's initial, 200,000-hectare geographic coverage. Given that KFCP physical interventions did not proceed far, the authors devote the bulk of their effort to analysing a hypothetical scenario in which a KFCP-like project is fully

implemented. For this scenario, they use more conservative estimates of emissions avoided and arrive at a positive rate of return of A$3.3-10.8 million per annum.

A series of lessons-learned, technical and scientific papers is progressively being made available through the web site of Indonesia's Forestry Research and Development Agency, with many appearing in the second quarter of 2014. As noted in section 2.4, none of these has been placed on web sites affiliated with the relevant Australian government departments, namely the Department of Foreign Affairs and Trade and the Department of the Environment. These papers are useful though generally narrow in scope. One, a synthesis paper (IAFCP 2014b), is broad in scope but it is vague, almost silent on costs and does not seek to assess KFCP's achievements against its original aims, as redefined in 2009. Moreover, it looks to have been heavily sanitised so as to reduce the impression that KFCP's most fundamental components, canal-blocking and performance-based payments, were abruptly terminated.

A2.7 Project sustainability

KFCP was announced as a four-year project but its initial funding allocation, like that of its parent initiative IFCI, spanned the five financial years 2007-08 to 2011-2012. When IFCI was extended for a year, as part of Australia's 2010 fast-start climate change financing pledge, so was KFCP. In bilateral discussions about the future of KFCP up to 2012, it had increasingly been taken for granted that Australian support would need to be extended by at least several more years, to around 2016, bringing the lifespan of the project to perhaps nine years, though with a slow start[64] in 2007-08. When the decision was taken in early 2013 to terminate IAFCP, KFCP was extended by one more year, but only to allow completion of its livelihoods component and other tasks related to its closure and the possible transition of some project elements to other sources of support.

Some elements of KFCP appear set to continue after its closure. A functioning Forest Management Unit has been established within the district administration, though it requires further capacity building. The Ministry of Forestry has reportedly taken up reforestation guidelines developed by KFCP for use at the national level, and will support seedling cultivation at some KFCP-supported nurseries through a new program, *Kebun Bibit Rakyat* (People's Nursery). The inter-village consultative forum on REDD+, sustainable forest

[64] Only A$0.5 million was disbursed in that year, according to Department of Foreign Affairs and Trade 2013: 107.

management and village development will continue, as will the Kapuas REDD+ Working Group. Rubber cultivation and other livelihoods activities established with KFCP support should deliver increased incomes well into the future, particularly as plants mature. Fire management teams and protocols established with KFCP assistance appear to have become entrenched.

In addition, there is some prospect that the project as a whole will be taken forward with funding from other sources. The Kapuas district government, in the final stages of the project, took strong ownership of KFCP and applied to the national REDD+ Agency for funding, which would ultimately be sourced from Norway, to proceed with canal-blocking and other key elements of KFCP, possibly across a larger area. IAFCP 2014b states that 'funding has been confirmed for the continuation of the canal blocking program through the blocking of a major canal … to test a methodology developed by the program' and says also that the peatland monitoring program will be continued to 'gather data about changes in emissions levels after the canal has been blocked' (IAFCP 2014b: 45)—though it does not identify the funding source. It is not known whether any funding from new sources might be used to finance payment for performance, including the trialling of benefit-sharing arrangements.

Finally, the presence of KFCP in Central Kalimantan was a factor in the choice of that province as the pilot province pursuant to the Indonesia-Norway Letter of Intent, and also resulted in the district of Kapuas's shortlisting to receive assistance under the World Bank's Forest Carbon Partnership Facility.

Ironically, acute awareness of KFCP's impending demise appears to have resulted in quite an effective last-ditch effort to put in place some of the building blocks for future action on REDD+ in the project zone, subject to the availability of funding from new sources. However, the effectiveness and cost of performance-based payments for emission reduction in that zone has not yet been tested. Worse, the credibility of REDD+ has not been well served by the Australian government's failure to engage effectively with communities and lower levels of government throughout most of the life of KFCP, its failure to establish clear and firm project priorities and follow through with them, its failure to communicate clearly its intentions and achievements, or the abrupt manner in which it terminated support in 2013.

Annex 3: Progress of support for Indonesia's National Carbon Accounting System

A summary account of the progress achieved by the INCAS support program up to the point of IAFCP's closure in mid-2014 is provided below, under headings corresponding to the six project elements set out in section 4.2, and a sustainability heading. Shortcomings at the point of project closure are also discussed.

A3.1 Acquire, process, store and collate data

An Australian government media release in 2007, announcing the establishment of an Australian-led Global Carbon Monitoring System, said, 'through the GIFC, Australia will be building satellite receiving stations to help countries in the Asia-Pacific region better monitor their forest cover and carbon' (Downer & Turnbull 2007a). Subsequently, a capital allocation of A$7.8 million was made in Australia's 2007-08 federal budget for 'a [single] satellite receiving station to provide ongoing access to satellite data to support forest monitoring systems in the Asia-Pacific region'[65].

The Global Carbon Monitoring System, like the subsequent government's partnership with the Clinton Foundation which was to see Australia's NCAS 'rolled out' internationally, came to nothing. It would not be possible to determine from government statements or publications whether the satellite receiving station was ever built. However, it appears that one was, judging from the 'space solutions' page of the web site of the company BAE Systems:

> *A recent example of our work was the satellite ground station for the Department of Climate Change ... The ground station receives data from Earth Observation satellites for the purpose of monitoring the South East Asian forested regions. This capability forms part of Australia's global effort to reduce carbon emissions in support of the United Nations Framework Convention on Climate Change.*[66]

BAE Systems is a preferred supplier to the Australian government's Defence Science and Technology Organisation, which would suggest that the receiving station was incorporated into, or constructed as an extension of, a defence-related remote sensing facility.

There is no indication in any of the materials produced by IAFCP that data collected by the above satellite receiving station has been used for the purposes of INCAS. In its original

[65] http://reddplusdatabase.org/arrangements/747.
[66] http://www.baesystems.com/article/BAES_158823.

conception the receiving station was to be part of a global network and was to collect data on the countries of Southeast Asia and the Pacific, particularly but not only Indonesia and Papua New Guinea. As GIFC and later IFCI progressively contracted in scope, effectively becoming a program of support for bilateral cooperation in one country, Indonesia, and a source of support for several multilateral initiatives, the relevance of this facility was bound to dwindle. Data for Indonesia, in the end, was seemingly obtained entirely from third parties.

One has to wonder what purpose was actually served by the almost A$8 million investment in the Australian-based receiving station—and for that matter the rest of the $35 million (Australian Government 2007a) originally appropriated to the Department of Climate Change in 2007-08 for its IFCI-related activities, to which were subsequently added further transfers from AusAID's appropriation, in addition to the A$10 million allocated by AusAID for Australian support to INCAS in Indonesia. It is known (Australian Government 2013a) that some A$23 million of the IFCI funding administered by the Department of Climate Change was ultimately passed, in the final year of IFCI, to the Global Forests Observation Initiative (A$10.1 million) and, oddly, to the Clinton Foundation for land emissions estimation in Kenya (A$12.5 million).

The above concerns aside, the Department of Climate Change, through IAFCP's INCAS support program, does seem to have played a concrete and cost-effective role in helping Indonesia (LAPAN) to obtain from a variety of sources, process and store data from the Landsat satellite (operated by NASA and the US Geological Survey) extending back to 1990.

The INCAS support program was also to help develop 'a comprehensive GIS that includes digital map-based information such as soil maps, remotely sensed images covering the whole of Indonesia, and climate and vegetation data' (archived IAFCP web site). In addition, land tenure maps were to be developed in order to identify agents of deforestation and degradation. Land tenure maps were partially completed for Central Kalimantan to support the pilot carbon account for that province but were not attempted at a national level. Ground-based data on forest types and land use were compiled for use in the pilot carbon account for Central Kalimantan. However, full National Forest Inventory datasets proved unobtainable as an agreement on data sharing could not be reached with the relevant arm of the Ministry of Forestry. The planned comprehensive GIS was not produced.

Hardware and software was installed within both FORDA and LAPAN, though supporting data management systems still need to be strengthened and administrative and budgeting arrangements settled. LAPAN, with support from Indonesia's REDD+ Agency, reportedly now has an operational ground station to collect satellite data for use in land cover change analysis.

A3.2 Complete historical land cover change analysis

INCAS was to help Indonesia complete a 'wall-to-wall' land cover change analysis for the whole nation, extending back to 1990. The remote sensing aspects of INCAS were the domain of LAPAN. Drawing on the abovementioned Landsat data, LAPAN was indeed able to prepare annual, cloud-free forest-cover maps for the years 2000-2012, though not back to 1990, for the whole nation. Indonesia is said to be well placed to extend the series to include 2013 and the 1990s, which will be important for the formulation of possible reference emission levels.

With support from IAFCP and the Global Forest Observation Initiative, LAPAN is participating in an R&D project aimed at improving capacity to using radar sensors to detect degradation. However, methods to monitor degradation with remote sensing remain under development, both in Indonesia and globally.

A3.3 Develop biomass estimation methodologies

Based on information about the size and location of annual land-cover changes across Indonesia, INCAS was to assist in estimating changes in biomass in these areas. Biomass estimation was the domain of FORDA. Methods for estimating biomass content in Indonesia's forests were developed and published by FORDA with assistance from the INCAS support program. Biomass estimates were made for the purposes of both simple and more detailed carbon accounts for Central Kalimantan, using the above methods.

The abovementioned restrictions on access to full National Forest Inventory datasets hampered progress under this heading. While KFCP vegetation monitoring data were used for biomass estimation in relation to Central Kalimantan, it is unclear to what extent the output of KFCP's expert panel on greenhouse gas emissions from peatlands might have been utilised in FORDA's biomass estimation and carbon modelling for that province, or more generally. The IAFCP web site said only that 'the INCAS [support] program is … working with KFCP to develop a methodology for estimating emissions from peatlands …

to be used in the national and subnational systems'. The draft design document for the INCAS support program makes no reference at all to the potential for linkages with KFCP's MRV component, mentioning KFCP only in annexes as a program with overlapping objectives (IAFCP 2009b).

A3.4 Develop national carbon accounting capacity

The INCAS support program was to develop 'a pilot forest carbon accounting system that will comply with international good practice for forest carbon accounting' by mid-2013 (IAFCP web site). This was ultimately intended to be an Intergovernmental Panel on Climate Change (IPCC) 'Tier 3' (most accurate) emissions measurement system (IAFCP 2011: 13). The system was to play a central role in 'tracking progress towards emissions reductions targets; … providing emissions estimates to inform Indonesia's national GHG inventories and other emissions reporting requirements, such as the National Communications to the UNFCCC; supporting participation in future carbon markets; … (and) generating reference emissions level (REL) scenarios' (archived IAFCP web site). Carbon modelling, along with biomass estimation, was the domain of FORDA.

The 2011 Independent Progress Review of IAFCP found it was 'highly likely' that Indonesia would have a basic operating system for REDD+ MRV by the end of IAFCP, although it was not expected that a Tier 3 system would be in place. By the time the INCAS support program closed, a 'system design' was said to have been completed, providing for the integration of remote sensing, peat data, forest inventory data and forest management information. In addition, a 'nationally consistent framework' is said to have been developed to support REL scenario modelling.

Australia's Full Carbon Accounting Model (FullCAM) software package, which is used in the preparation of its national GHG emissions account for the land sector[67], was used in the preparation of the simple and detailed carbon accounts for Central Kalimantan. However, not all its functions were relevant or utilised, and FORDA reportedly believes that a better model needs to be developed, tailored to Indonesia's specific circumstances.

No reference emissions level was established for any part of Indonesia, though the government of Indonesia sometimes refers to estimates of historical emissions as reference levels. It is unknown whether efforts were made to 'predict future GHG emissions and

[67] http://www.environment.gov.au/climate-change/greenhouse-gas-measurement/land-sector.

sinks' at the national level—one of the INCAS support program's stated objectives—as an intermediate step toward the determination of an REL, but it seems unlikely.

As noted above, in the final year of IFCI some A$12.5 million of the IFCI funding controlled by the Department of Climate Change was passed to the Clinton Foundation for land emissions estimation in Kenya. One might have expected that Indonesia, rather than countries further afield in which Australia had no prior or complementary REDD+ investments, would have been accorded priority for ongoing support through third parties.

A3.5 Support the development of a provincial MRV system

Australia was to support 'the development of a nationally consistent approach to measurement, reporting and verification (MRV) by working with the REDD+ Pilot Province of Central Kalimantan on the development of its provincial system' (IAFCP web site). This was to include help to develop a provincial REL. This objective was not part of the original design concept for the INCAS support program, which was to be focused at the national level, but was added at some point following Indonesia's signing of the Letter of Intent with Norway in 2010.

The INCAS support program helped FORDA to produce a simple carbon account for Central Kalimantan in mid-2013 (Government of Indonesia 2013). This was an account of historical emissions for Central Kalimantan and Kapuas district using a simple GHG accounting methodology (with Tier 1 emission factors and 'some additional estimates derived from KFCP research'), which ensured compliance with a Norwegian Letter of Intent requirement, and triggered release of the first tranche of Norwegian funding. A fuller account based on more detailed modelling was reportedly produced shortly before the project closed in 2014, but has yet to be published.

In both cases, it seems no future projections were made. The determination of possible RELs would have required this, and also consideration of adjustments to those projections to account for measurement error and leakage, and to avoid perverse incentives. The INCAS support program closed before it was able to assist the government of Indonesia to expand the coverage of INCAS beyond Central Kalimantan, or develop actual REL scenarios.

A3.6 Support institutional development

There was initially no clear counterpart agency for the Australian Department of Climate Change, and no well-developed understanding on the Australian side of Indonesian bureaucratic dynamics in this area. Over time, relationships clarified and deepened, and most effort was directed to the development of LAPAN's remote sensing capacity and FORDA's biomass estimation and carbon accounting capacity. Indonesia's REDD+ Agency, responsible *inter alia* for ensuring the delivery of a national REDD+ MRV system, was conceived in 2010, and, after numerous delays, established by Presidential decree in late 2013. There was little opportunity for the INCAS support program to engage with it before IAFCP closed.

While an overall management framework for INCAS is still lacking—this now depends on action within the Ministry of Environment and Forestry (which in early 2015 absorbed the functions of the REDD+ Agency)—an INCAS implementing agency has been established within FORDA and its arrangements for working with other relevant institutions are being developed. A biomass and emissions estimation team was established and trained at FORDA; likewise a remote sensing team at LAPAN. Numerous training programs were delivered in remote sensing, emissions estimation and model-based carbon accounting. Approximately 20 local staff and consultants were engaged in the development of INCAS, including GIS and remote sensing experts, forestry and biomass experts, data processors and analysers and program support staff. LAPAN is now reportedly playing a global leadership role in remote sensing with respect to tropical forest landscapes.

Australian assistance appears to have been important in fostering productive co-operation between relevant Indonesian agencies, with LAPAN ultimately assuming the overall leadership role in relation to remote sensing, and the Ministry of Forestry in relation to forest carbon accounting. There is good reason to believe, based on the evidence presented in, among other places, IAFCP 2014a, that Australian technical assistance for INCAS has been valued and has had a lasting impact at the institutional level, which a great deal of technical assistance fails to do.

A3.7 Project sustainability

INCAS, like KFCP, was funded initially as a five-year program, extended in 2010 to six years, but was later understood to be developing into a longer-term partnership. With the

termination of IAFCP, the final year of the INCAS support program was devoted largely to handing over systems and staff, and documenting work undertaken.

In late 2013, INCAS was officially adopted as an Indonesian system by FORDA, which might be dismissed as a polite gesture but probably was not. Indonesia's REDD+ Agency was in 2014 working with FORDA to establish a national REDD+ MRV management committee. An initial coordination meeting, led by FORDA, was convened in June 2014. Nine IAFCP staff will be directly employed by LAPAN after the closure of IAFCP to support the remote sensing aspects of INCAS. Ongoing Australian technical support will be provided to FORDA and LAPAN through the Australian Centre for International Agricultural Research (ACIAR), for perhaps two years.

The timing of the INCAS support program's closure in relation to the establishment of Indonesia's REDD+ Agency was particularly unfortunate. The program was in no position to build ownership of INCAS within the new agency. Partly for this reason, the program's achievements are unlikely to be durable unless an adequate level of assistance is maintained for several more years. Assistance channelled through ACIAR, however, is likely to be small and sporadic, with limited impact. The arrangement entered into with the Clinton Foundation for Kenya might have been more appropriate in the case of Indonesia.

Australia's initial assistance model for the INCAS support program was undoubtedly too supply driven, territorial and episodic. The assumption had been that INCAS would be a modified version of Australia's NCAS and that Indonesia would rely on Australia for the collection and, at least for some time, the processing of data. However, Australia's approach was, unsurprisingly, not readily transferrable to Indonesia, and Australia underestimated the intensity and flexibility of engagement required to make progress in this area. It also underestimated Indonesia's appetite for advice from a wide range of international sources. Nevertheless, over time Australia's support did become more flexible[68], and eventually more in line with Indonesia's specific policy requirements under its Letter of Intent with Norway.

[68] The INCAS support program increasingly worked in cooperation with other sources of expert advice, including the University of Maryland in the United States and Wageningen University in the Netherlands.

It was the assessment of the IAFCP team that Indonesia is, as a result of Australian support, well positioned to prepare more complex carbon accounts of the kind that might eventually be required to support international trade in forest carbon emission reductions (IAFCP 2014a). At the institutional level, it appears that continuous engagement between the Department of Climate Change and its Indonesian counterpart agencies over a period of some seven years, together with increasing flexibility on the part of the Department of Climate Change to respond to Indonesian needs and priorities and to work cooperatively with non-Australian partners, achieved some durable outcomes.