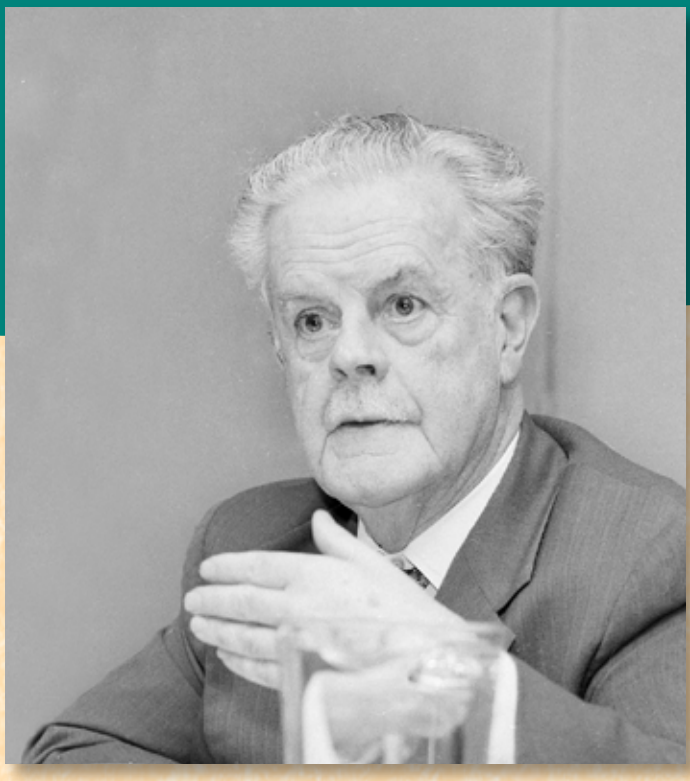
Buying time



J.G. Crawford and
international agricultural research

Denis Blight and Nicholas Brown

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J.G. Crawford and International Agricultural Research

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Preface

Sir John Crawford (1910-1984) led a complex, multifaceted public life. Writing his biography has, as result, been demanding. In 2013 an Australian Research Council Linkage Grant (LP130100268) drew together a team of four researchers,[1] with the support of the Crawford Fund and the Department of Foreign Affairs and Trade, to undertake this project. The daunting scale of the enterprise soon became apparent due to: competing pressures on the necessarily diverse team of contributors, especially on already overbusy academic members; the compounding intrusion of the COVID-19 pandemic; the premature death of one of the team; and a self-imposed decision to avoid a recapitulation of already available reviews including the collection of essays *Policy and Practice* (1987). Those essays were drawn together shortly after Crawford's death by thirteen men who had worked closely with him and who wrote in fond regard for an admired colleague.[2] Instead, this biography would be a big book, written in a single voice covering Crawford's whole life rather than offering a series of perspectives and vignettes in differing styles. We would seek to appeal to new generations of readers: a readership at least forty years on for whom the issues of global mission and security are cast in different terms to those of the postwar decades, for whom Crawford is a much less familiar figure if one of undiminished importance in terms of the challenges with which he was engaged. That has proved no simple or straightforward undertaking.

In his crowded life, Crawford swam in many lanes. That life can be seen as an intensive itinerary moving devotedly from one task or country to another, to some extent between defined periods in Australian and international history. Demands on his energy, and on his personal life, were considerable. These matters will be explored more fully in the biography, a necessarily much larger book, and for a more diverse readership. Yet there were consistent themes to his work and advocacy in the area of international agricultural research, particularly in relation

1 Frank Bongiorno, Nicholas Brown (both from the ANU), David Lee (DFAT and then UNSW) and Stuart Macintyre (University of Melbourne).

2 LT Evans and JDB Miller (eds), *Policy and Practice: Essays in Honour of Sir John Crawford*, (Canberra; Australian National University Press, 1987).

to the contribution continued by the Crawford Fund: achieving efficiency and equity in global agricultural production and what would come to be called 'food security'. His career saw that case made in state and non-state institutional structures, in global diplomatic negotiation and applied research, in volunteer and civic mobilisation, from positions of considerable public authority as well as in carefully managed mentoring relationships. Trained as an economist, Crawford became an astute administrator, a policy architect, an academic leader and a vital figure in determining the allocation of unprecedented funds to support new frontiers of technical and scientific innovation. If, at points in his working life some questioned whether he was perhaps trying to do too much (both for his own good, and given the requirements of each job), there was an undeniable personal integrity to what he took on and achieved. And there was a personality underpinning it all: restless, ambitious, principled and persuasive but also pragmatic and driven by a deep and sometimes injured pride.

As we approach the fortieth anniversary of Crawford's death in 1984, just two years after the same milestone in the establishment of the Australian Centre for International Agricultural Research (ACIAR) in which he played a formative part, we offer here to the Crawford Fund and its networks a condensed account of Crawford's contribution to international agricultural research. This volume is in no sense instead of, or an alternative to, the full biography. While there will be some duplication of material twixt the two publications, they will serve distinct, complementary purposes. For the Crawford Fund, this publication offers an account of what Crawford himself regarded as perhaps his main achievement: his contribution to international agricultural research policy and practice. But this story is only one dimension of his life. In time, it and the full biography will sit beside each other, the focus and detail of this book finding its broader and deeper contexts in the other.

Crawford's interest in international agriculture reached back to his first close engagement with the applications of economics in the crises of the 1930s, but it found its firmest footing, application and recognition from the early 1960s onwards. In 1961 he delivered a public lecture titled 'International Aspects of Feeding Six Billion People', identifying him as a 'Malthusian optimist' with a

vision of how that still pressing goal, of ending global hunger, might be achieved. In 1965 he was selected to join the International Bank for Reconstruction and Development's inquiry into 'India's Economic Development Effort', the report of which would significantly influence Bank policies and stimulate other initiatives associated with the 'green revolution'. Because of his capacities and determination, Crawford remained integral to this unfolding project, in close association with the foundation of bodies that would have a continuing role in coordinating the intersection of science, policy and practice. Most prominent among these was the Consultative Group on International Agricultural Research (CGIAR), established in 1971. As first chair of the CGIAR's Technical Advisory Committee (TAC), Crawford took particular satisfaction in guiding the development – and more particularly in shaping the priorities and assessing the efficiency and efficacy – of a network of international research centres that would profoundly shape innovations in 'feeding the world' .

These roles reflect only some of the areas of Crawford's participation in international development. Inevitably selective, hopefully this account will underscore the importance of the intersection between the contexts and the constancy of his commitment. His support for a set of policies to increase agricultural productivity evolved over time, encompassing (for example) a decade of further work in India, new priorities in Indonesia and attempted but failed reforms in Iran before the 1979 revolution. Such research, he insisted, must be linked to expansion of international education and training programs as well as to the economic policy capacity of governments. His influence over Australia's aid program extended to a foundational role in the establishment of the Australian Asian University Cooperation Scheme (AAUCS) in 1969 – reflecting one set of priorities in Australian international engagement – and the Australian Centre for International Agricultural Research (ACIAR) in 1982, reflecting another. And there were the less tangible and often less formal ways in which he built institutional capacities and advanced individual careers – in the government, non-government and voluntary sectors. Such work indicates why Crawford provided both the name and inspiration for the Crawford Fund in its dedication to raising awareness of and support for international agricultural research and training.

This volume comprises research and writing by Denis Blight, who since his retirement as Chief Executive from the Crawford Fund in 2016 has assisted in the larger writing project. Blight first met Crawford at Nairobi airport in early 1976 where the latter was in transit between Iran, India and Africa. As one of the many who benefitted directly from Crawford's encouragement, Denis brings both personal familiarity as well as technical and organisational insight to this task. His account allows for a greater reflection on these issues than the 'big book' can offer, but – again – these texts should be seen as interdependent rather than alternatives. Nicholas Brown's role has been to bring into this account as much of that wider story and context as appropriate to our purposes here.

Given this focus, the first chapter will offer a brief account of Crawford's life and career to the early 1960s identifying factors in his philosophical approach. Following chapters track his engagement with international development – at least in so far as a narrative can encompass the many lanes of even this dimension of his life. We have aimed at a chronological approach to international issues, but this has created two problems. It has meant that we have omitted some of his important policy work in Papua New Guinea, particularly in the period prior to its gaining independence. And we have had to deal with the fact that his work in one field often began while that in another was ongoing – Iran (1973 to 1976) alongside his work in India (first in 1965/1967, and 1973 to 1980 the second time around), Indonesia (1969 to 1971 and then 1980 to 1982), TAC/CGIAR (from 1970 to 1976), and finally IFPRI, IDRC, IFDC and ACIAR (1975 to 1984), (we will unpack these acronyms as we go). Chapter Three seeks to deal with these issues as they related primarily to international engagement. Chapter Four considers specific in-country relationships. Chapter Five covers these issues as they connected back to Australian interests. This can be an untidy sometimes blurred division of topics: to some extent that in itself is a reflection of the breadth of Crawford's contribution, and of the connections he held in his head. Our Conclusion seeks to draw out some of the enduring relevance of this sample from the many lanes in which he swam.

Chapter One

The Coming of Crawford[3]

Standing away: a distinctive role

The multiple dimensions of Sir John Crawford's life, work and achievement are readily captured in a simple chronology of his appointments, a list of his publications, even a tabulation of the acronyms to be kept in mind in tracking his career.[4] But there are less tangible elements that need also to be recorded so as to reflect the synthesis of expertise, commitment and personality he carried through his busy life. One illustration is provided in a letter written in late 1978 by the World Bank's Regional Vice President, East Asia and Pacific, Shahid S. Husain, to Widjojo Nitistastro, the Chairman of Indonesia's National Planning Board. The context is worth noting. Husain was mapping out the early stages of collaboration on a project intended to relieve population pressures in Java by relocating farmers to the less settled of Indonesia's 'outer islands'. This initiative was one of many confirming the Bank's decisive move into agricultural development, and – particularly under the presidency of Robert McNamara after 1968 – in making poverty reduction and a quantifiable improvement in living conditions a central focus for operations drawing on a massive expansion in both the Bank's financial commitment and its technical capacity. In retrospect, Husain would recall the Bank's involvement in Indonesia as a 'golden chapter' in this transition, assisting in rescuing an economy from the 'shambles' of centralised control into a rising prospect of economic growth – although the transmigration program, he conceded, would itself prove a learning experience more than a success. Bulldozers alone could not make for sustainable agriculture.[5] But that

3 This chapter draws extensively on the work by Stuart Macintyre and David Lee for the full biographical project.

4 See the appendices to Evans and Miller (eds), *Policy and Practice*: over 70 acronyms are listed there, and they offer far from a comprehensive coverage.

5 S Husain, interviewed by L Galambos, 18 March 1994, World Bank Oral History Project: 19.

realisation was in the future, and one dimension of the Bank's delicate dealing with a government and its interests. In opening those negotiations, Husain advised:

> You have already met Sir John Crawford, who at my invitation has agreed to help us in articulating and coordinating our thoughts on the agriculture and rural development sector. Apart from his vast and valuable experience, he will be able to stand away from the Bank's day-to-day activities and provide an objective view of our operations and programs. He has undertaken this kind of role in other countries, particularly in India.[6]

We return to the Indonesian transmigration program later in this book. Crawford's long association with India will also figure prominently in this account. Here the point is simply to register the nexus Crawford had reached by the late 1970s. If he had gained the reputation (in the view of one prominent player at the World Bank) of being a 'wheeler and dealer', it was in relation to these wider transformations, as the Bank fortified its recommendations with economic expertise, and as McNamara sought some form of 'redemption' after leaving his position as US Secretary of Defence during the escalation of the Vietnam War.[7] As McNamara's biographer, Deborah Shapley, observes, Crawford was a leading figure in a group who guided the new president's enthusiasm for the 'green revolution' and all it represented.[8] That was not the least of his influence.

Husain's term – 'stand away' – captures the distinctive status of Crawford's preferred positioning in the midst of these realignments. One part of this story is familiar enough. Crawford had found his place among a generation of economists who were taking Keynesian approaches to post-war prosperity into an enthusiasm for (in Mark Mazower's phrase) 'development as world-making', exercised through the unprecedented financial as well as intellectual investment

6 S Husain to W Nitistastro, 31 November 1978, Crawford Papers, NLA MS 4514 (CP). Box 326.

7 J Mellor, former director general of IFPRI, personal communication to D Blight, 18 November 2015; D Shapley, *Promise and Power: The Life and Times of Robert McNamara* (Boston: Little Brown, 1993) 476.

8 Shapley, *Promise and Power*: 509.

in the field by philanthropic bodies, research institutes, and agencies such as the World Bank and the Food and Agriculture Organisation.[9] These bodies, while most often aligned with or in coordination with governments (and especially that of the United States) still cultivated and stood by a sense of independence in their programs.[10] Crawford would add a distinctive Australian dimension to this fusion, becoming (as judged by Ross Garnaut, one of those who learnt much from him) 'the best remembered Australian economist in the international community'.[11] Another part, however, requires closer examination. How did this man come to have and play such a role?

One fascination of his story is that this influence from the 1960s onwards drew on deep personal and historical commitments; another is to examine more closely the links between his 'wheeler-dealer' role and those principles at a time of such major transformation. The context for Crawford's advocacy was in part reflected in President J.F. Kennedy's launch of the United Nation's 'Decade of Development' in 1961, and the momentum invested in 'breaking the bonds of mass misery'. Through the 1960s, building on what J.K. Galbraith noted as the 'explosion of concern over the condition of the poor nations' across the West, and perhaps culminating in the work of the Brandt Commission in 1980 (which Crawford advised), international development galvanized attention as a distinct form of 'world making', evident in new institutions, expansive programs, the refinement of expertise and burgeoning careers.[12] A rich scholarship now surrounds our understanding of this momentum, spanning Cold War politics, scientific innovation, philanthropic and humanitarian concern, and the expanding reach

9 M Mazower, *Governing the World: The History of an Idea, 1815 to the Present* (New York: Penguin, 2013): 273.

10 G Garg, 'Ford Foundation–India Relations in the 1950s: A Recipient Country Perspective', *South Asia: Journal of South Asian Studies*, vol. 43, no. 6, 2020: 1041-1057; N Micinski, 'The changing role of the Ford Foundation in international development, 1951–2001', *Voluntas*, no; 28, 2017:1301-1325.

11 R Garnaut, 'Sir John Crawford' in J King (ed), *A Biographical Dictionary of Australian and New Zealand Economists* (Cheltenham:, Elgar, 2007): 74.

12 JK Galbraith, *The Nature of Mass Poverty* (Cambridge: Harvard University Press, 1979): 35.

of 'international society' alongside a complex interplay with the domestic politics of security and welfare.[13] It is still instructive, however, to anchor these influences in specific acts, agents and contributions. Crawford provides one such focus.

Economic appeasement: the shaping of a world view

'I was not a farm boy', Crawford conceded in 1981, nor had he wanted to be an economist.[14] That agricultural economics came to define so much of his career is worth some explanation. Crawford's path takes in a mix of generational, opportunistic, personal and paradigmatic factors – the last encompassing a focus on international nutritional and distributive concerns in the 1930s coupled to New Deal conservation programs in the United States, the mobilisation and supply pressures of the 1940s, the trade and development agendas of the post-war decades through to the 'food entitlement' concerns of more recent years.[15] Crawford's life reminds us of the often unappreciated power of an agricultural perspective on the twentieth century, with its capacity to expose the deepest questions of need, waste, inequality, transformation and sustainability. It also helps us understand how one individual found his way into making that perspective such an effective means of persuasion and innovation.

His first steps on that path were shadowed by his own sense of injustice. Born in 1910 in the Sydney suburb of Hurstville, John Grenfell Crawford – 'Jack' to family and friends – was the tenth of twelve children. Significant patterns were already evident in the family lineage that would shape his career and personality. There was, across previous generations, the impact of economic uncertainty, slips from relatively independent security and status which were products of misjudging the

13 A Offner, *Sorting Out the Mixed Economy: The Rise and Fall of Welfare and Developmental States in the Americas* (Princeton: Princeton University Press, 2019).

14 JG Crawford, 'My Journey', *Farm Policy*, vol.20, no.1. 1981: 111; 'Miscellany of Points Prompted by the National Library', typescript, CP, Box 193.

15 S Maxwell, 'Food Security: a post-modern perspective', *Food Policy*, vol. 21, no. 2, 1996: 155-70.

market, and a determination to rebuild dignity in work and service. His father, Harry, left school at twelve and helped his siblings make their way in terms then common among large families. He worked in a Bulli colliery from the age of thirteen before joining the New South Wales Railways. By the time of Jack's birth, Harry was stationmaster at Como, then on the southern suburban outskirts of Sydney. Two of Harry's younger brothers became engine drivers, another a union organiser and parliamentarian. A fourth graduated from the University of Sydney, served as a minister of the Presbyterian Church, acquired legal qualifications while a member of the New South Wales Legislative Assembly and established a practice at the bar that culminated in appointment as senior crown prosecutor.[16] By 1914 Harry's appointment as an inspector in the railway service enabled his family to settle in Bexley, then an outer-suburb. Jack's mother Harriet, the eldest daughter of a fettler, experienced considerable 'poverty and primitive living conditions as a child'.[17] More extroverted than her husband, she was also resourceful and determined that her children find recognition of their talents. Two of Harry and Harriet's daughters became schoolteachers, another taught the piano, another was a dressmaker, but the three last-born sons – Max, Jack and Ken – all obtained university qualifications and achieved eminent careers.[18]

Jack would reflect fondly on his childhood. Like his elder brother Max, he attended the local primary school. Encouraged in wide reading and solid, disciplined study, he proved a bright pupil. The prizes he won, he would later recall, were his 'main source of personal income – my father's family was large and his income low'.[19] Dux of his final primary year, Jack won a bursary to Sydney Boys High, where he relished good teaching and the 'high standard of entry' evident among his peers. Yet for reasons that remain unclear he was placed in the commercial stream, so denied the Latin training that would have enabled him to pursue his preferred university

16 L Tanner, 'Thomas Simpson Crawford', *Australian Dictionary of Biography*, vol. 8 (Melbourne University Press, Melbourne, 1981) 140–41.

17 JG Crawford, 'Miscellany of Points'; M Crawford, 'My Brother Jack: Background and Early Years' in Evans and Miller (eds), *Policy and Practice* 1-16.

18 M Crawford, 'My Brother Jack': 5

19 Crawford, 'Miscellany of Points': 1

courses in either medicine or law. And his education was soon overshadowed by a crisis in the family's finances: his father, who had taken early retirement, was dragged down by a doomed business partnership. Jack interrupted his final year at high school in 1927 to work in the State Savings Bank until he had enough money to pay board at home. Resuming study in May, he made up ground to complete his Leaving examinations at the end of the year. He would reflect that this 'interruption' influenced much of his life. The episode must have shaped some of his central values and reflexes, not least in the comparison between his own experience and that of his brother Max, who in 1927 left to read modern history at Balliol College, Oxford. In 1928 Jack commenced part-time studies for a Bachelor of Economics at the University of Sydney, taking lectures in the evening and working by day as a public service clerk.

At home, the local Presbyterian congregation was central to Crawford family life. Even as Jack began to move away from religious belief, the 'social gospel' of fellowship and duty endured with him. Economics had interested him at school – a fascination with Malthus's concept of diminishing returns and Cannan's emphasis on productivity folded into his socio-religious outlook. His university teachers were interested in policy applications, current affairs and the new discipline of public administration. Increasingly central to these concerns was an international frame of reference, both in terms of uncertain markets and political instability. Sydney economists were especially attuned to a 'Pacific' field of reference, and of the need to move from protectionism towards new markets and fresh drivers to efficiency.[20]

In 1930, in order to pursue the additional work required for an honours degree, Crawford left the public service and took a teacher's training scholarship. He now, however, was bonded to teach in schools on graduation. His first placement, in 1932, was to Stanmore Public School, in Sydney's inner west. Assigned a class

20 For greater detail on these issues, see N Brown, 'Far More than Anyone Could Possibly Dream of: The League of Nations in Australian Economic Analysis of the Nation, the Region and the World', in J Damousi and P O'Brien (eds), *League of Nations: Histories, Legacies and Impact*, (Melbourne: Melbourne University Publishing, 2018) 61–82.

of 52, Crawford lamented that the vast majority of his pupils had not qualified for secondary school but were there because the only alternative was unemployment. He taught all subjects except science, preparing eight or nine classes a day. He faced the humiliation of a principal who ridiculed his efforts to make his subjects more interesting. He was luckier in his second position when in September 1932 he was transferred to Temora Intermediate Secondary School. In the northern Riverina, Temora was a relatively prosperous wheat centre, with an agriculture research station that had evolved into an experimental farm. The district, however, had been hit hard by extreme market instability and government encouragement to grow more wheat even as prices fell. Crawford enjoyed teaching, and learnt much from the community, including some shock at 'the effects of inbreeding in poorer rural communities and the shabby treatment of blacks'.[21]

Crawford on the road with the League of Nations Union 1933

His keenness to return to academic work, and the impression he had left on academic patrons, brought him back to Sydney by May 1933 to take up a Walter and Eliza Hall Research Fellowship. The subject of his research – the effects of tariff on the structure of Australian industry – involved him in lonely and uninspiring

21 Crawford, 'Miscellany of Points': 3.

statistical work. It was, however, coupled to a renewed engagement with the clubs, societies and fellowships in which he had been active as an undergraduate and in which he now took a more prominent part, often travelling extensively to give talks and lectures. In one address to the Workers' Education Association (WEA) he reflected on a theme which would guide all of his work: that 'the world is now so inter-knit economically that international conditions must affect national policy'. With his sights set (for far from the last time) on the flaws in the recently concluded Ottawa Agreement, which locked in place principles of imperial preference in trade, he counselled that free trade must prevail over a protectionism that too often merely sheltered 'selfishness'. So soon into the decisive emergence of economists into Australian public debate, the young Crawford soberly advised that 'practical economists no longer pose as masters of policy, but could be used in a much better fashion than they are today'.[22] As he expounded in a radio address on the new, 2UW network in 1934, the economic interdependencies that were shaping the modern world needed to be embraced alongside the other practical skills of law, health and diplomacy represented by the League of Nations.[23]

Coupled to this engagement Crawford took up an invitation to begin teaching economics in Sydney's Faculty of Agriculture. The course he devised – 'Economic Science Applied to Agriculture' – developed iteratively in consultation with fourth-year students. He enjoyed contact with several young men who later became valued colleagues in universities, banking and government. And it further refined his interest in a still emerging field of application and opportunity. In late 1935 he accepted appointment to the Rural Bank of NSW as Economic Adviser, becoming in 1936 its more formally titled Economist. The Rural Bank had morphed from a department within the Government Savings Bank (which closed in 1931) to become its own institution by 1933, providing loans (at low, sometimes zero interest and no minimum deposit rates), housing finance, and even liens on harvests to support farmers still emerging from the depression. A committed supporter of small-holders, aiming to combat the predatory practices of insurance salesmen and money lenders, the bank again complemented Crawford's principles and enabled

22 'Expediency in Trade Policy', hand-dated 1933, CP, Box 195.

23 *Australian Women's Weekly*, 14 July 1934: 27.

him to consolidate a research and outreach capacity. This linkage twixt research and extension was sustained throughout his career in international agricultural research.

More than any other area of economic activity, Australian agriculture then raised questions of Australia's place in the world, including new possibilities. The 'marriage of health and agriculture' was one of the prospects championed by F.L. McDougall, the South Australian orchardist then finding his place in major international debates over markets, diets and peace. McDougall did this in close partnership with S. M. Bruce, Australia's former prime minister but who was then closely associated with the League of Nations as High Commissioner in London.[24] McDougall adopted the term 'economic appeasement' to recognise the legitimate needs, and volatile politics, of producers in poorer nations excluded from access to consumers in wealthier states.[25] In 1936, invited to address an Australian Institute of International Affairs symposium on *Australia in the Far East*, Crawford – the youngest speaker – introduced an argument that would drive much of his advocacy over the following decades. The essential complementarity between Australian and Asian development, and the high living standards his fellow citizens sought on the rather fragile basis of agricultural exports, could only be secured if markets were created by raising the purchasing power of the 'teeming millions' – he used the term wryly – of Asia. Crawford returned more decisively to this theme in a 1938 paper to an Australian Institute of Political Science forum. Expanding on McDougall's term, he reflected specifically on the 'very nice problem in economic appeasement' Japan presented:

> Japan has a growing population, must industrialise and must have markets. The West has decided against Japan on the very readily appreciated grounds that the speed of Japan's impact is too great: it forces a very heavy burden of change on old industrialised areas.[26]

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24 W Way, *A New Idea Each Morning: How Food and Agriculture Came Together in One International Organisatio*n (Canberra: ANU Press, 2013) 129

25 Way, *A New Idea Each Morning*: 170; P Clavin, *Securing the World Economy: The Reinvention of the World Economy* (Oxford: OUP, 2013) 160.

26 JG Crawford, 'Australia as a Pacific power', in WGK Duncan (ed.), *Australia's Foreign Policy*, (Sydney: Angus & Robertson, 1938) 83.

In retrospect, Crawford's endorsement of appeasement seems at once bold, far-sighted, and naïve – or even rash. But at the time the prospect of war in Asia was deeply conditioned by economics, in contrast to the ideological confrontation in Europe. He was, he insisted, no 'apologist' for militarism. His point was instead that there was no need for a rush to arms. Australia was relatively unburdened by the need to protect a manufacturing sector and had a unique opportunity to mediate between the options of conflict or complacency. Economic change was the prerequisite for any political or strategic goals that might be sought in a troubled world, including the high League of Nations ideals of disarmament. Again, this was a perspective that guided his later work.

Not as the mere recipient of largesse: rethinking the farmer

Crawford was conscious of the juggling of opportunities and commitments in his career so far, and restless for consolidation. Married to Jessie Morgan – a member of the Bexley Presbyterian congregation – in May 1935, his personal ambition was coupled to a sense of civic evangelism. In 1938 he seized the opportunity to add international experience to this so far precocious mix. He secured a Commonwealth Fund Service (Harkness) Fellowship to travel to the United States to study the rural credit schemes introduced in 1933 as part of Roosevelt's New Deal. An ambitious program, geared to mortgage provision and production and marketing loans, rural credit was part of a wider adjustment program to better align what was grown with what was needed not only in America but in global agricultural markets. Crawford would be associated with the Brookings Institute but gained much more as a visiting scholar at the then recently established Graduate School of Public Administration, Harvard.

At that school, John D. Black had extended training in rural sociology through strong contacts in the US Department of Agriculture into interests in land settlement, tenure, agricultural credit, prices and marketing.[27] Black's team included Alvin Hansen and John Kenneth Galbraith, early proponents of

27 JK Galbraith, 'John D. Black: A Portrait' in James Pierce Cavin (ed), *Economics for Agriculture* (Cambridge: Harvard University Press, 1959) 11, 13, 16.

Keynesianism in the United States. Crawford arrived at Harvard at a time when an economic slump associated with balanced budgets in 1937 had spurred the search for new links between agricultural and labour policy. That bastion of New Deal ambitions, the Farm Security Administration (FSA), particularly influenced Crawford's thinking, especially the attempt to formulate a mix of capital and technical assistance required to keep the 'individual farmer' from being completely superseded by 'industrial' farming without recourse to the 'European model [of] economically and socially unbearable subsidies'.[28] So many of the principles that he would later hold were laid down in that treasured time in the United States.

The height of his fellowship was six months working in the US Department of Agriculture which, through its Bureau of Agricultural Economics, was coordinating a research-driven 'integrated and continuing national agricultural program'.[29] At an Institute of Pacific Relations conference at Virginia Beach, Crawford struck up a friendship with C.L. Alsberg, a plant chemist engaged with social science research who headed a Bank of America-funded agricultural economics centre at the University of California. Alsberg in turn, provided Crawford with a personal letter of introduction to Henry A. Wallace, the Secretary of the Department. This interest was shared in contacts with Forrest ('Frosty') Hills, an agricultural economist at Cornell then heading the US's Farm Credit Administration (FCA). Hills was one of the many people Crawford met in the States who would be closely involved in his career into the 1960s and onwards. As vice-president of Overseas Development for the Ford Foundation from 1955, Hills would become an especially valued contact for Crawford. Another close friend in the FCA was E.C. Johnson, who integrated soil conservation priorities into credit schemes. Crawford also valued exchanges with Robert Nathan, who became chair of the US's War Production Board's planning committee in 1942 and a consultant to the federal government on economic development projects in the Middle East, Asia, and Latin America in the 1950s and 1960s.

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28 P Gourevitch, 'Breaking with Orthodoxy: The Politics of Economic Policy Responses to the Depression of the 1930s', *International Organization*, vol. 38, no. 1, 1984: 115.

29 G Baker and W Rasmussen, 'Economic Research in the Department of Agriculture: An Historical Perspective', *Agricultural Economics Research*, vol. 27, no.3, 1975: 59.

1939: At Harvard: 'the seat of learning'

1940: travelling the US with Jessie

The remarkable access Crawford would have over the post-war decades to international programs supported by US funds had their origins here. But in 1940 he was keen to return to Australia: the uncertainties of war drove him, but so did his sense that new opportunities would emerge for young men such as himself in finding greater influence in government. Back at the Rural Bank, he proselytised for New Deal style planning. He urged Australian farmers to step-up campaigns for a 'whole farm' approach, to present themselves 'not as the mere recipient of largesse, but a cooperative contributor' in the national economy, insisting on 'a fair share of the national income for farm families and fair exchange of values for farm products'. Resuming his WEA courses, he outlined the choice between a world defined by old entanglements and the opportunities of the 'new', associated with the benefits to Australia should the US see it as 'an attractive field for industrial investment to develop the markets of South East Asia and China'. The US offered the prospect of an 'international farm block' in recognising that meeting demand for global nutrition was more likely to uphold 'civilisation' than further resort to arms.[30] In his post-war work he would rail against the US's resistance to

30 See talk scripts in CP, Box 195.

embracing that role, while seeing that Cold War politics (about which he remained ambivalent) still provided some leverage for a more pragmatic internationalism.

These messages and opportunities gained traction with his appointment in October 1941 to a newly-created Division of Agricultural Economics within the NSW Department of Agriculture. With support from the Premier, William McKell, Crawford began recruiting geographers and economists envisaging cooperation with experts in plant breeding, entomology, veterinary science and soil chemistry. An edge to this new prominence came with a satirical *Bulletin* article in November 1941 which wryly noted his appointment under the heading 'The Coming of Crawford':

> One day last month the NSW farmer went outside and, before the astonished gaze of the chooks and cows, took off his hat, raised his eyes to the blue Australian sky, and gave thanks. Farmers in other States, hearing of this wonder, looked with envy on their NSW brothers and prayed, too, that they might be sent a saviour even as the one sent to NSW …. For, as can be seen, there is nothing that JGC doesn't know, and, if he hasn't ploughed a field of merinos or shorn a herd of Nabawas, still is he an Economist – and who shall say [to] an Economist nay? Especially when he is to have four assistant Economists and 'it is intended ultimately so to enlarge this new division as to make possible full investigation of all the problems mentioned' and so on, world without end, until a grand new department arises in the great city.[31]

Crawford did not take the joke: he protested to farmers' organisations that they should counter this 'malicious' report. It was another instance of his sensitivity to slights.

31 'The Coming of Crawford', *Bulletin*, 12 November 1941: 7.

Crawford around 1943

Soon, however, there was little time for such bridling, and less need for it as Crawford's networks of influence became more secure. He was drawn rapidly into the 'total war' effort building through 1942. Axis victories across Europe, the pace of Japanese advance in the Pacific, the movement of agricultural workers into uniform or munitions production, demanded production goals and distribution mechanisms appropriate to a conflict likely to stretch far into the future, requiring supply to US troops fighting across the region, and the reform of a painfully underdeveloped, over-exploited farming sector. The pressures for such coordination were matched to the general perception that few had the skills to manage them other than him. Recently a father after some difficulty in conception, Crawford was now often absent from home in Sydney. Through late 1942 he could sometimes be in Melbourne (still in many ways the centre of wartime Commonwealth administration) for full weeks. The prospect of a move to Canberra, and all that represented in the further concentration of central power, offered to bring at least a little more stability to family life.

Yet Crawford proved an ambivalent if obvious recruit to the newly-established Department of Post-War Reconstruction in early 1943: obvious in that no area of the Australian economy (as he insisted) needed more urgent attention in remedying the 'piecemeal and preliminary' approaches that characterised all aspects of the mobilisation of a total war economy; ambivalent in that he would lose at least some aspects of the control he had so far exercised over a research and advocacy agenda. [32] Both aspects were soon evident in his role in attempting to coordinate one of the first major undertakings of the new department, a Rural Reconstruction Commission (RRC) tasked with providing advice on 'the reorganisation and rehabilitation of the rural economy' arising from wartime experience and opportunities. Frustrated by what he saw as a lack of strategic priorities in the Commission's work, and by personalities and styles at variance with his own directive approach, Crawford proved difficult for the Department's head, H.C. Coombs, to handle, although there was no lack of respect for his commitment or acknowledgement of the strain the work imposed.

By mid-1943 Crawford was appointed the Ministry's Director of Research – a role Coombs fashioned for him, loosely defined but recognising the urgency of turning the deluge of information flowing into and from the department into some kind of strategy, and of keeping such a valued officer on-side. Crawford would be actively involved in many of the initiatives associated with the reconstruction experiment, including regional planning, decentralisation, housing and immigration. But in 1945 he welcomed the opportunity to realise a goal he had brought back with him from the United States. He took on the task of establishing the Bureau of Agricultural Economics (BAE), an agency which gave unprecedented emphasis to a specific area of research, and which was effectively alone in salvaging a relatively secure recognition of expertise from the accumulating political sensitivities of reconstruction. Crawford's base for the rest of 1940s, the BAE navigated its own tensions between empirical survey, short-term inquiry, applied science and wider-ranging analysis and advice. In this mix, the Bureau added another dimension to the ways that, within the short span from 1943 to 1950, Crawford

32 S Macintyre, *Australia's Boldest Experiment: War and Reconstruction in the 1940s* (Melbourne: Melbourne University Press, 2015) 122, 125

traversed a landscape in which practices of policy, specialisation, influence and advocacy were being transformed and which in turn characterised his approach to international agriculture.[33]

Bolder and more imaginative: policy coordination and initiative

The 1950s brought further recognition of Crawford's skills enabling him to build his experience in policy and trade. In 1950, aged 40, Crawford was appointed Secretary of the Commonwealth Department of Commerce and Agriculture, becoming the second youngest of his cohort of permanent heads. His place was confirmed among the 'seven dwarfs' – a cohort of senior bureaucrats all diminutive in stature – who became renowned as integral to the practices of government in 'the Menzies era'.[34] The Country Party's John McEwen had become minister for that portfolio following the election of the coalition government in 1949, riding a popular rejection of the planning and controls of the 1940s. His selection of Crawford upset claims of seniority and experience in the bureaucracy, but McEwen – a soldier-settler farmer himself, a driven, ambitious and canny politician – was determined on consolidation for the interests of his constituents, and on his vision of national development. The partnership between the two men would become one of the touch-stone examples of policy and political collaboration in Australia. At that time so much of the prosperity Australia sought to claim

33 See L Myers, *Foundations of Australian Agricultural Economics*, Australian Agricultural and Resource Economics Society, 2007; https://econpapers.repec.org/paper/agsaare07/10434.htm

34 The most likely members of the group were HC Coombs, Governor of the Commonwealth Bank from 1949 to 1959 and Crawford's friend and patron; Roland Wilson, Commonwealth Statistician from 1946 to 1951, Secretary to the Treasury from 1951 to 1966 and Crawford's rival; Richard Randall, a senior Treasury official, then Wilson's successor as Permanent Head of the Treasury from 1966 to 1971; Sir Henry Bland, director-general of manpower and then Secretary of the Department of National Service from 1952 to 1967; Sir Frederick Shedden, Secretary of the Department of Defence from 1937 to 1956; and Sir Allen Brown, Secretary of the Prime Minister's Department from 1949 to 1958, a man called on to referee for Menzies the antagonism brewing between the Treasury and Crawford in the 1950s.

seemed contingent on the capacity of agricultural exports to pay for the imports required to meet consumers' aspirations and the development of secondary and tertiary industry capacity. Commentators soon noted the confidence with which the 'dapper John Crawford' ('the Tom Thumb of the public service but a powerful influence in personality') was despatched by his minister to conduct the international negotiations which 'affected every aspect of Australian life' in securing such beneficial exchanges.[35] Very visibly, Crawford became the emblematic mandarin of the 1950s.

If, as the cliché ran, Australia rode on the sheep's back, the ride was far from assured in the early 1950s. Decades of under-investment in rural industries and communities, and the volatility as well as restrictions of international markets, dictated the need for a major coordination of the sector. Crawford tackled this imperative with a remarkable investment in expertise and institutional structures, and in forceful international representation.[36] His advocacy was coupled to the Cold War imperative – as it seemed then – that in any future conflict Australia would be called upon more than ever to feed and clothe at least one part of a world descending into crisis. As Crawford would add, there was also the obligation of boosting the fortunes of those in the underdeveloped world who looked for some kind of economic security. Australia had to negotiate with close allies in the United Kingdom and the United States which both wanted to suspend the discipline of the market and defend their own farming sectors in an increasingly competitive world – or at least in a world that, in the new regimes of trade negotiation, was markedly more prepared to open up to manufacturing competition from affluent states which still sought to protect their own farming constituencies. This was a testing context for Crawford, often disillusioning (in his attempts to adapt the old practices of imperial protection to new realities with the British) or sobering (in realising the limits to the American advocacy of open markets). He distrusted the dissembling of the British as they wrestled with a new Europe; he felt on

35 F Chamberlain, 'Vital mission on wool and food', *The Mail* (Adelaide), 7 July 1951.

36 See generally D Lee, 'Sir John Crawford and Agriculture and Trade' in S Furphy (ed.), *The Seven Dwarfs and the Age of the Mandarins: Australian Government and Administration in the Post-War Reconstruction Era* (Canberra: ANU Press, 2015): 169-182.

more secure ground in trying to enlighten the Americans on the impacts of their actions. Something of his style and effectiveness was revealed in the observations of a senior US negotiator, Winthrop Brown, emerging from the 1955 negotiating session of the General Agreement on Tariffs and Trade:

> Crawford of Australia was extremely cooperative and helpful. He also is highly intelligent, very clear-thinking, firm, humorous and well informed. He also has a great capacity for not wasting time and sticking to the point. The Delegation found him exceedingly satisfactory to deal with and it was possible at all times to be completely frank with him. On many occasions his subordinates tried to bargain too hard, but it was always possible by discussion with Crawford to come out with a reasonable and mutually satisfactory solution … Crawford was willing to take responsibility for a compromise, to put it forward himself and to defend it in Working Party and plenary.[37]

Winthrop's point regarding the ways in which Crawford was also training a rising group of Australian officials in the finer craft of diplomatic negotiation is worth noting in itself.

Such diplomacy was not without its personal costs. Crawford would often return from extended travel exhausted in mind and body. But he was determined to inch Australia's interests forward in organisations such as GATT, whatever the frustrations and the domestic resistance to being tied to international conventions. There was the standing Australia was winning from developing nations in urging the case for fairer treatment. If Australia, Crawford conceded to McEwen in the later 1950s, was unlikely to be 'conspicuously successful' in shifting GATT agendas, it was at least advancing on 'specific and practical' matters. Having done much to rationalise Australian agriculture, Crawford became increasingly determined to influence the terms in which national interests – and international complementarities – could be more effectively advanced through a coordinated multilateral approach to trade. This commitment set the scene for his next major transition.

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37 J Glennon (ed), *Foreign Relations of the United States 1955-1957*, vol. 9 (Washington: United States Government Printing Office, 1987): 101.

Owing much to Crawford's advocacy, backed by McEwen, in 1956 the Australian Government created a new Department of Trade. This agency gave concentrated attention to – as it was framed at the time – an 'export drive' aimed at enabling the nation to contain a chronic balance of payments deficit, to more effectively sell to the world commodities that would support a continued mass immigration program, to redress the profits flowing out of the country as a result of 'hot' overseas private investment in domestic industrial development, and to underpin a more sustainable engagement with a rapidly changing international economy.[38] Rather boastfully, McEwen declared that the department had been 'established for the purpose of providing a more concentrated point for thinking and acting in regard to total problems of both import and export.'[39] Total was a big word. Those who liked to play the Canberra insiders game saw the Treasury 'gradually sinking back into the role of guardian of the public purse' while Trade gained in policy initiative and political relevance. There was even a perception that Trade – linking a domestic constituency in business, commerce, manufacturing and mining to the overseas representation of trade commissioners, trade missions and senior government-to-government negotiation – was edging aside External Affairs in Australia's international presence.

This influence was Crawford's intent. He was seen as 'predatory' in drawing to the department a new cohort of public servants able and keen for the task.[40] His most determined initiative was to negotiate a commerce agreement with Japan which owed much to his carefully cultivated personal relationships while also recognising the facts and the opportunities of Australia's increasing economic alignment with development in Asia. As he reflected on the interests behind this agreement:

38 H Arndt, 'Overseas Borrowing: The New Model', *Economic Record*, vol. 33, no. 65, 1957:248.

39 Extract from press interview held by McEwen in JG Crawford (ed.), *Australian Trade Policy 1942-1966* (Canberra: ANU Press, 1968): 534.

40 L Crisp, 'Central Coordination of Commonwealth Policy Making: Roles and Dilemmas of the Prime Minister's Department', *Public Administration*, vol. 26, no. 1, 1967: 44.

> Neither side expects nor can expect a neat balance for the very reasons that make us 'natural' trading partners. Japan needs industrial raw materials and foodstuffs which we can supply in good quality and competitively. It can fairly be said that our wool and industrial minerals, our scrap and, indeed, our raw sugar, are exports vital to the employment of Japanese people. We export employment to Japan's growing population.[41]

Crawford on an Industry tour of Japan 1958

This concept of 'complementarity' became a central plank of Australian trade policy and diplomacy. Yet such balance was not easy to secure in other established relationships. Australia continued to wrestle with balance of payments anxieties which, as Crawford saw it, were being addressed through short-term expedients rather than longer-term structural changes in the profile of the Australian economy. His frustration with domestic policy settings ran parallel to his sense of the opportunities that a changing world, and especially regional, economy presented. Advising a conference of agricultural scientists in 1958 as Secretary of the Department of Trade, he offered his own take on this synthesis:

41 JG Crawford, Speech to Welcome Japanese Sugar Mission, CSR Dinner, 8 August 1962, National Archives of Australia (NAA) M58: 402

> If the West wishes to win this Cold War, it has to be bolder and more imaginative in its world economic policies than it has so far. The industrial and agricultural expansion which has so far been made by Mainland China, and which is planned, emphasize this—through her ability to supply and by the impact of Asia on her achievements if and as these become demonstrated. Underdeveloped countries need aid and trade: the conditions for both are too uncertain for us to be confident that successful economic expansion will take place in these areas. Yet, if it doesn't, Australia will face great difficulties in finding new markets. I need hardly mention the political implications of failure in India and South East Asia.[42]

This was quite a fusion of concerns, capacities, and interventions. And it was this perspective he took with him in 1960 when he accepted overtures from the Australian National University (ANU) to both direct its Research School of Pacific Studies (RSPacS) and establish within it a department of economics.

Our great umbrella: the move to the ANU

Crawford had long thought of returning to academic work, and offers had come. He was, however, also aware of the difference between the impact he had as a senior public servant and whatever influence he might be able to exert as an academic. In joining the ANU, he emphasised the need – and his commitment – to build more effective links between government and research. Established in Canberra in 1946 as a research-only university focussed on areas of national priority, the ANU was in part premised on such exchange as much as it was cautious of it in building a reputation for scholarship. This tension was particularly marked in RSPacS, where the applied focus on Australia's surrounding region amid the waning of colonial presence, the rise of nationalism and the flux of strategic interest made for a complex agenda.[43] As Stuart Macintyre observed, early RSPacS appointments

42 'Is an Efficient Agriculture all that is Necessary for an Effective Trade Policy?', address to Institute of Agricultural Science, 25 November 1958 at Sir John Crawford Speeches, NAA A4112/1

43 The three other research schools were Physical Sciences, Medical Research and Social Sciences.

were 'adventurous' in seeking an appropriate mix of skills but did not always bring coherence to their field, and certainly brought some testing personalities.[44] With Crawford, and the inclusion of economics within the School's profile, an attempt was made to remedy that drift.

Development economics – then relatively new in formulation, certainly in Australia – was central to that task. Crawford assembled a team in his department that was diverse in background and interests, from expertise in trade policy to experience in colonial administration. Malaya was an early case study – the choice of economic priorities for an emerging state – but so was Papua New Guinea, where the pressures for social and political change in the territory were running far ahead of economic capacity in what seemed best described as a 'primitive', not yet even an 'undeveloped', economy.[45] Crawford, not overly directive in setting priorities, was determined to ensure the work of colleagues was well-supported. And he encouraged their engagement with current debates. He was, as one of those early appointees Max Corden later reflected, 'our great umbrella, who got us money from government – a mystery' and left his staff relatively free. Even so, the department did show a marked emphasis on the agricultural dimensions of development.[46] In doing so, it positioned itself on one side of an emerging contrast in emphasis. The prevailing model was W. Arthur Lewis' argument that 'surplus agriculture labour' must be moved from 'backward' practices to capital-generating industrialisation. T.W. Schultz, instead, saw the farmer as an inherently rational agent, needing appropriate resources, information and market access to become fully productive.[47] A product of the American mid-west that had inspired

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44 S Macintyre, *The Poor Relation: A History of Social Sciences in Australia* (Melbourne: Melbourne University Press, 2010) 61-2, 104.

45 E Fisk, "The Economy of Papua New-Guinea," in *The Independence of Papua New Guinea*, (Sydney: Angus and Robertson, 1962) 26.

46 H Hughes, *Development Research in Australia: Problems and Prospects* (Canberra: Australian Development Assistance Agency, 1975) 5-7, 17-18, 22, 26.

47 A Escobar, *Encountering Development*: *The Making and Unmaking of the Third World* (Princeton: Princeton University Press, 1995) 2: 3, 39, 84; D Kapur, J Lewis and R Webb, *The World Bank: Its First Half Century* (Washington: Brookings, 1997) 388-90.

Crawford in the late 1930s, Schultz brought a more empirically informed emphasis to challenging the assumption that 'an iron-clad poverty equilibrium' locked poor people into agricultural production in low-income countries. This later view fitted best with Crawford's outlook, and that of many – if certainly not all – of his team.

Soon after his arrival at ANU Crawford found himself being drawn into (and accepting) more administrative responsibility than he had anticipated. His time for extended research was constrained although he remained central to strengthening his department and School, in mentoring a trusted cohort of researchers, and seeking support for initiatives from the expanding network of agencies that encouraged the fusion of research and policy. He maintained, as much as possible, close connections to government and also sought to influence policy agendas while building up non-government and civic mobilisation to support a range of causes. Prominent in Freedom from Hunger campaigning, he also led in the formation of the Australian Council for Overseas Aid (ACFOA) in 1965, drawing together the main private aid groups (the majority church-led, along with several community service and university-based bodies) to better coordinate the allocation of funds in association with government. In all of this, agriculture was a core point of reference. One of the main, new, influential groups to be brought onside for ACFOA was Community Aid Abroad, with its initial emphasis on assistance to small-scale agriculture and craft production.[48] Freedom from Hunger was more populist, direct and sentimentalised; its 'miss a meal' campaigns evoking the experience of food deprivation and mobilising new constituencies of concern. To the extent he had an opportunity to put his own distinctive stamp on these issues, it came with his 1961 Roy Milne Memorial Lecture, delivered at the University of Melbourne for the AIIA – 'International Aspects Feeding Six Billion People'.

48 "Objectives of Community Aid Abroad", flyer dated 1970, Australian Council for International Development Papers, NLA MS 9347, Box 28, Folder 128.

Chapter Two

In Farmers' Fields

No silly apologies: the new age of international development

Crawford's commitment to the fusion of international development and agricultural economics was – as seen in Chapter One – well established by the early 1960s. But, as has also been noted, that decade would bring major transformations to how such a synthesis would be pursued. His appreciation of that process was evident in his 1961 Roy Milne Memorial Lecture.[49] He opened with a quotation from the Reverend Thomas Malthus, who

> in his essay on *The Principle of Population* published in 1798, began an argument that, given 'our knowledge of the qualities of the land', population growth tends to outrun the means of subsistence. This being so, unless moral restraint were practiced, wars, famines, pestilence, vice and human misery generally would take over: in short, population would be cut back to available food supplies. As we know now, the state of knowledge did not remain static and, although not all of the world has been well fed, its population has certainly grown beyond any expectations Malthus had. His theory, as we shall see, still has considerable relevance although perhaps not the gloomy certainty in prediction it once enjoyed.

Using 'rough strokes on a large canvas', Crawford then fashioned a picture of the population explosion in progress which, with its main centre in Asia, threatened political objectives for economic and social growth and stability. He was – especially after years in government – aware of the Cold War context: 'the social dangers of

49 JG Crawford. 'International Aspects of Feeding Six Billion People', Twelfth Roy Milne Memorial Lecture, the Australian Institute of International Affairs, Melbourne 18 October 1961

over-population and the attractions of communism have become more powerful'. But, characteristically, he did not seem to be preoccupied by this cause. 'Whether from humanitarian or economic motives or from a neither unreasonable, [n]or unreasoning exposition of political self-interest, or from all three motives together, it seems to me that Australia has to enlarge its already vigorous role: for its stake in the welfare of Asia is a large one indeed.'

'Vigorous' was, no doubt, a deliberate choice of word – worth pausing at. Australians have become very used to the idea that their destiny lies in Asia. But in the early 1960s the point was fresh, and not without its own challenges. There was a restlessness to Crawford's advocacy, again perhaps reflecting years of strained domestic and international policy negotiation and a determination to ensure that the research world with which he was now associated pushed through to applied contributions. More specifically, the 'optimism' of his Milne lecture drew on advances made in the breeding of high-yielding cereal varieties, supported by improved fertiliser, irrigation and crop management regimes. These innovations were exemplified in the work steered by the American agronomist, Norman Borlaug, in laboratories established in Mexico in the late 1940s. Supported by the Rockefeller Foundation, this research reflected a distinct post-war approach to philanthropic aid, complementing existing public health and engineering programs with the application of scientific expertise to basic agricultural resources – seed, soil and water – in countries that had little in the way of industrialisation to support a more staged, socially and politically-interventionist process of development.[50]

This model, proven through the early 1950s in dramatic increases in wheat harvests in Mexico (where the progeny of newly-bread varieties retained high yielding qualities), then applied to rice production in the Philippines (where the high yield attribute was not retained), had multiple levels of appeal. In his lecture, Crawford emphasised that 'technology is not our principal problem': 'food supply was part of a wider problem of economic progress in which social, political and economic difficulties abound'. But technology was at least a way of framing priorities, and (in a recurring phrase for Crawford) of 'buying time' to address what he conceded were those more challenging

50 J Perkins, 'The Rockefeller Foundation and the Green Revolution, 1941–1956', *Agriculture and Human Values*, vol. 7, 1990: 7.

issues of population strain, to which he would later add environmental degradation. As he stressed, the relationship between 'agricultural technology, determining the technical relationship between food output on the one hand, and natural resources and labour inputs on the other, is not necessarily fixed'.[51] The conviction that agricultural production could be expanded sufficiently to feed a growing population, provided appropriate policies were adopted, was central to his thinking.

Vigorous also related to a new role for technical expertise. While preparing the Milne lecture, and in one of the book reviews he used to track his way back into academic work, Crawford noted with approval Eugene Black's enthusiasm, as the president of the World Bank who had done much to build its professionalism since appointment in 1949, for 'a special class of advisers, development diplomats, whose task it is to elucidate the choices open to those responsible for decisions and to illuminate them by showing the economic consequences'. 'Failure' in efforts to stimulate economic development, Crawford added in that review, 'will be dangerous, [and] … success … may not achieve any particular pattern of freedom as conceived by Western governments proffering aid'. But 'in underdeveloped areas the choices are almost always difficult and often cruel' – and he offered 'no silly apologies' for such blunt terms.[52] He also found, in this alignment, a way forward with 'the genuinely pragmatic approach' he conceded to his more theoretically-inclined colleagues at the ANU 'I must necessarily follow'. [53]

Revolutionizing the nation's agriculture Bell Report

In the 1960s Crawford carried the authority of a former senior bureaucrat and now a director of a major research institution: both roles were recognised in May 1962, for

51 As interpreted in R Duncan and P Warr, 'Agriculture in Poor Countries', unpublished paper presented to AARES conference, 2016.

52 J Crawford, review of *The Diplomacy of Economic Development* by Eugene Black, *Economic Record*, vol. 37, no. 80, 1961: 520.

53 J G Crawford to D.Bensusan-Butt, 29 August 1960, ANU Archives (ANUA): Staff File 518c.

example, when he was invited to the first World Food Forum, held in Washington to celebrate the centenary of the US Department of Agriculture. At a welcoming reception at the White House, Crawford might have smiled wryly when President Kennedy moved from celebrating the 'extraordinary revolution' in American farm productivity to emphasise his 'particular concern' at the 'stocks stored away' by wealthy states given inadequate 'supply' to the rest of the world. Australian farmers certainly were not benefitting from US largesse in 'giving' agricultural surpluses as aid to nations in Asia where Australia sought markets. Equally, as Crawford had argued at a conference of agricultural economists in Mexico the previous year, the dispersal of the West's excess did little to raise agricultural production in underdeveloped nations, or to push mulitlateral trade mechanisms to seriously address the distortions of stubborn rural protectionism.[54] He was not alone in making these arguments, but he did have a particular mix of expertise and experience to bring to the debate.

Yet however familiar Crawford was with these issues and in these networks, it was with some surprise that he received in August 1964, on behalf of the Director-General of the FAO, an invitation to join a mission to India to be coordinated in association with the International Bank for Reconstruction and Development, as the leading arm of the World Bank. The context was the Bank's concern that India was far from the laboratory for development programs many had hoped it might serve, as one 'very big, very poor country' to be saved.[55] There had been crippling droughts and famines. Open hostilities with Pakistan begged the question of where national resources were being directed. The Bank – in part with its own reputation at stake – sought from the Indian Government a joint review of their economy before the final touches were put on its Fourth Five Year Plan. There was little ambiguity in George Wood's observation, as the new president of the Bank, that this review of India's current economic planning did not necessarily indicate a commitment to support future investment, especially if 'problems of a military or political nature' discouraged donors from contributing'. This position was clearly explained to

54 JG Crawford, 'Using surpluses for economic development', *Proceedings of the Eleventh International Conference of Agricultural Economists*, (Oxford, OUP, 1963) 382.

55 N Cullather, *The Hungry World: America's Cold War Battle Against Poverty in Asia* (Cambridge Mass: Harvard University Press, 2010) 135.

the Indian government, who understood the views of 'certain of the important members of the Consortium [of aid donors] and [that] it would be unrealistic … to expect a further Consortium meeting unless the present situation changed'. Woods also wanted a team composed largely of eminent figures from outside the Bank, who would boost the analytical rigour of its recommendations by stressing economic factors as a balance to the usual legal and financial pre-occupations.[56] The project was to be substantial, and led by Bernard Bell, an economist brought to the Bank as a consultant in 1962 first on transport and coal industry management.

Crawford headed the agriculture team, which included Wolf Ladejinski, an expert on land ownership and tenure reform, Louis Goreux, a macro-economist on deputation to the FAO and the IMF, and Louis Garnier, an agriculturalist and irrigation specialist. Central to what became known as the Bell Report, Crawford's contribution (number two of the final fourteen volumes) laid out a framework for the broad scale adoption of new technologies that would lead to a substantial increase in Indian food production.[57] At the time, this focus had particular urgency. A Ford Foundation team had warned the Indian Ministry of Agriculture in 1959 of a 'coming crisis' unless urgent steps were taken to increase crop yields to serve a rapidly expanding population.

By the early 1960s, the scale of that food crisis was also of 'global significance', a test of civic conscience as well as a strain on the terms in which the efficacy of aid was calculated.[58] An associated turn to agriculture was new for the Bank, and indicated the wider shift underway. India had already begun investing in 'micro results from experimental plots and trial demonstrations', with a rising generation of younger scientists importing Borlaug's insights. Among them was MS Swaminathan, who should also be numbered amongst the founders of the green revolution. Having

56 J Kraske, *Bankers with a Mission: The Presidents of the World Bank 1946-1991* (New York: OUP, 1996) 145-148.

57 *Indian Economic Policy and the Fourth Five Year Plan* (in fourteen volumes), IBRD and IDA, Washington May 1967

58 U Lele and B Bumb, *South-Asia's Food Crisis: The Case of India* (Washington: World Bank, 1986) 4.

witnessed famine in Bengal in 1943, Swaminathan's commitment to agricultural science took him to a postgraduate specialisation in plant genetics at Cambridge and Wisconsin universities (learning much from Borlaug). Beginning in 1958, he sought to apply this work, with slim resources and a keen sense of risk, at the Indian Agricultural Research Institute (IARI). Given that the Bank had tended so far to prioritise funding capital and infrastructure works with a private sector orientation, Swaminathan had no expectation their scientific interests would be favoured.

Parallel to Swaminathan's work was that of a new wave of development workers drawn to India, with specific academic training in interdisciplinary areas of the kind Crawford had admired on his tour of the United States in the late 1930s. Among them was David Hopper, whose Cornell PhD thesis had applied anthropological and economic methods to understanding wheat farming practices, drawing on several years' participant-observation fieldwork in a village near Benares. Assigned to support Crawford's team, Hopper had suspicions that this imported, relatively unknown economist would endorse prevailing clichés relating to the 'peculiarities of the caste system, village isolation' and 'traditional' cultural values in holding back India's progress. Soon after meeting him at New Delhi airport, Hopper realised Crawford came with a more applied agenda.

On the drive into the city, Crawford cut short Hopper's prepared and anxious 'gush of words' with a pointed query: 'how good is Indian agricultural research on food crops?' [59] Bank officials were initially similarly disarmed by Crawford's preparedness once negotiations began to put aside the larger questions of land reform which had dominated World Bank agendas. 'He gave it away', recalled another official of an early meeting between Crawford and the Secretary of the Department of Food and Agriculture, which Crawford began by stating that land reform should not be regarded as a 'precondition' of Bank support.[60] That official wondered how the Bell mission could be taken seriously if issues which had so far been central were now regarded as (in Crawford's term) 'academic'. But

59 WD Hopper, 'An Interlude with Indian Development', *Policy and Practice*: 63

60 M Karcher, interviewed by John Lewis, 10 October 1991, World Bank Oral History Project: 4.

soon they appreciated the ways in which Crawford was seeking to cut through to a different scale and level of intervention, buying time and goodwill for a larger transformation. He was, as Hopper recalls, always 'quietly probing' the commitment of all interlocutors to the task at hand.[61]

That task centred on the prospects already sketched out in his Milne lecture. In forceful advocacy of what would by the late 1960s become known as the green revolution, Crawford's intervention through the Bell inquiry underscored the belief that 'there is so wide a difference between the new and old genetic base on which India's crops might rest that a development strategy for agriculture based on the new genetic material offers the substantial hope of revolutionizing the nation's agriculture'.[62] For many, the distinctive style and pace of his approach over those months in India was both disarming and refreshing. Swaminathan was among them. In his 1987 address to the inaugural Crawford Fund Conference, he captured the moment of his first meeting Crawford:

> One day early in 1965 I had a call from an officer of the Planning Commission of the Government of India asking whether I could show a distinguished visitor from the World Bank around the wheat plots at … IARI, New Delhi. I asked what exactly would the visitor like to see and how much time he could spare. In reply, Sir John Crawford came on the line himself and said he would like to see the semi-dwarf wheat varieties in order to understand their yield enhancing potential. I asked whether he would like to see them in the experimental station or on farmers' fields. He immediately replied 'In farmers' fields'. I took him to the Jounti Seed Village of IARI where he spent a whole day squatting in farmers' homes drinking the sugar cane juice and eating pearl millet bread they gave him and enjoying himself thoroughly. At the end of the day when I was taking him to his hotel, he said, 'I now see light where there was only darkness'. [63]

61 Hopper, 'An Interlude':163

62 Report to the President of the International Bank for Reconstruction and Development and the International Development Association on India's Economic Effort (Bell Report), vol. 2, Agricultural Policy India (Washington:World Bank, 1965) 35.

63 MS Swaminathan, 'Changing Nature of the Food Security Challenge: Implications for Agricultural Research and Policy', Sir John Crawford Memorial Lecture, 1987: 3.

The itinerary of Crawford's team, crossing India's diverse scales and ecologies of farming, provided many similar opportunities. In the recurrent intersections of their careers over the following years, Swaminathan and Crawford would effectively embody much of the adaptability, resilience and strategy of international agricultural research evident in that first exchange.

The Bell Report is remembered as among the most 'prestigious' of the Bank's initiatives, and especially in its emphasis on agricultural policies – and a linked stress on currency devaluation – in place of industrialisation.[64] Its recommendations challenged vested political and economic interests in India and shifted conventional wisdom. It certainly proved contentious and was handled with unusual confidentiality. Bell himself recalled Crawford's as 'the biggest contribution' to the Report, and agriculture as the area in which his team achieved its 'most important … effective and enduring recommendations'.[65] Empirically driven (Hopper recalled Crawford's relentless appetite for information, including the surge that came when Crawford found out Hopper had access to an electric calculator), and giving credit to research work already under way in India, Crawford's was another a 'bold strategy', carefully crafted to win assent in priority areas. His premise was stark: the trend rate in Indian agricultural production 'was inadequate to meet population growth and the rise in demand itself reinforced by rising money incomes, let alone to carry over stocks to be used in bad years'. If channelling Malthus, he was determined to map an alternative, optimistic path, proposing a 'new strategy for' for India's agriculture.[66] His report was rich with his uncomplicated but evocative prose. On plan targets, he detected 'treacherous ground' if the foreshadowed inputs were not in fact delivered. There was 'tremendous' scope for extension advice, 'and not least on the economics of farm practice' attuned to the small-scale of most Indian agriculture. Pointedly, reflecting his Australian experience, he advised that the prospects for agricultural

64 U Lele and A Goldsmith. 'The Development of National Agricultural Research Capacity: India's Experience with the Rockefeller Foundation and Its Significance for Africa', *Economic Development and Cultural Change* 37, no. 2, 1989, p. 322.

65 B Bell, interviewed by R Oliver, 13 November, World Bank Oral History program

66 *Agricultural Policy in India*: iii.

exports, and even 'the production of protein- and vitamin-yielding foodstuffs', while important, should be left for 'future focus'.[67] The immediate pressure was the availability of food, and in that cause, the role of the state was crucial.

'The authorities'. Crawford advised, 'may wish to limit the free play of the market' if it threatened to direct the flow of water and fertiliser, for example, to areas offering 'the greatest prospect of profit' at the expense of 'maximising growth in agricultural production'.[68] To bolster courage for such intervention, he added that his consultations had shown that 'political leaders, civil servants, scientists and farmers alike' were all convinced that a 'new technology is available which can give quick results even within the traditional constraints which dog the agricultural sector'. Equally, assured access to sufficient food would provide a way to address the 'rising social and political unrest which has begun to challenge the effective operation of the democratic system'. Beginning with reflections on 'the art of policy', the tone of his volume was encapsulated in the observation that 'we now believe an "organised will" to succeed does exist and is operating'. The 'very backwardness' of Indian agriculture, Crawford argued, provided an 'enormous opportunity' to adapt new technical solutions within its 'existing production-unit pattern'.[69] It was not a one-sided package: addressing the capacity to meet a target of 120 million tonnes of food grain by 1971, Crawford advised that while there was 'great potential in the new technology' of high yielding varieties of wheat (initially) and rice, there was still a need for balance:

> Excitement about the dividends to come from the new technology … must not be allowed to dominate the total research effort to the exclusion of those trying to push old technologies to their limit or to find new ways, within presently limited constraints of small holdings and poor credit status, to obtain the benefits of the new technology.

67 *Agricultural Policy in India*: iii.

68 *Agricultural Policy in India*: 6

69 Agricultural Policy in India: 37: Crawford was quoting J Lewis, *Quiet Crisis in India*, (Washington, Brookings Institute, 1962)

'An intensive package of water, fertiliser, plant protection materials, equipment, and good practices not to mention long-term capital and incentive prices' had to be locked in place. That phrase – 'intensive package' – would echo in future Bank reports at the highest levels. Critics of the Bank's technocratic embrace of the green revolution would later associate this assemblage of 'forward and backward linkages' to the creation of 'a new clientele for multinational products and services' in developing nations.[70] Crawford, however, was more attuned to the national coordination of an extensive network of ambitious provision, which would inform his expanding and close association with the Bank and his standing with the Indian government.

The elements of that package warrant closer examination, given their salience at the time, and their implications for future settings.

Quality seeds

While Crawford was 'confident that research workers will be given support, both from international and Indian Government sources', he was 'less confident about quality seed production' that must underpin their work and which was central to a strategy built on greater use of the higher yielding varieties. Building from a brief 'rather sorry' history of the Indian seed industry, he outlined the need for considerable change in the All-India mix of varieties and therefore a growing complexity in the seed programs. There was, he wrote, 'a badly needed more permanent and coordinated system of seed certification and, no less, a more coordinated approach to marketing'. Progress was premised on strengthening India's National Seeds Corporation (NSC) established in 1963, in staff, finance and its cooperative links with States, universities, and producer associations. The NSC must assume a 'major role as national leader and coordinator'. Sitting at the apex of a coordinated effort to maintain the purity of new breeding lines and to enforce standards for certification of commercial seed, the NSC exemplified the issues of control over, and access to, an authoritative bank of germplasm. Over time issues

70 See R Stryker, 'The World Bank and Agricultural Development: Food Production and Rural Poverty', *World Development*, vol.7, no. 3, 1979: 330.

of public-private partnerships, propreitary rights and incentives to adaptation in research as well as practice would complicate these matters. But some core points had been made.[71]

Increased application of fertiliser

Fundamental too was a strategy to ensure the'increased application of fertiliser required by the high-yielding varieties'. Crawford foresaw problems arising from favoured treatment for a selected group of farmers. Since the 'great mass of farmers in India use little or no fertiliser', the greater boost to production would come from persuading a large proportion of them 'to use a little fertiliser on old varieties'. 'The total response' from such a tactic 'may be greater than that from using a small proportion on farms with high yielding varieties (HYV) which must use a relatively heavy application of fertiliser to yield their best physical and economic returns'. This emphasis on graduated behavioural change went back to trust in the inherent rationality of farmers, and the observation that 'progressive farmers' were now clamouring for the new technologies. Crawford forecast that 'a large response from a significant number of farmers was nevertheless to be expected [once they saw] effective demonstration' of greater fertiliser use, especially as research was 'throwing up more high-yielding varieties … which respond to fertiliser usage' in diverse conditions. Equally, access to fertiliser, the trade exchanges on which it was premised, and energy demands involved in its production, would inform much of his insistence on the interconnections between national economic balance, international supply, and geo-political constraints through the 1970s.

Adequate water

Responding to those conditions centred on access to adequate water, necessarily through systems that recognised environmental diversity and – as Crawford added – that 'in no other aspect of agricultural policy of this importance is there so little that is conclusive in the way of … research or economic appraisal'.[72] Advancing

71 J Kloppenberg and DL Kleinman. "The plant germplasm controversy." *Bioscience,* vol. 37, no. 3, 1987: 190-198.

72 *Agricultural Policy in India*: 70

tentatively, his report noted that there were many scales to current and projected provision and technologies, including the completion of major schemes to carry water 'right up the cultivators' field'. Access to water started with a few new major and medium schemes if resources could be found; a relative upgrading of minor irrigation development and their better integration with both existing and new canal systems; and the application of the most fundamental technologies to minimise wastage. Overall, Crawford urged special attention to the integration of engineering, agronomic and administrative services in all irrigation development. He was interested in early results in building up agricultural output, and welcomed the *ayacut* model of integrated, cooperative development around specific irrigation projects, adaptable to the often lower water needs of hybrid crops. He also encouraged the use of groundwater, especially under private development; and the possibility of supplementing dug and tubewell subsidies or even replacing them with incentives to manufacturers of well equipment, trusting in the supply of groundwater. Crawford observed that enlargement of the utilised irrigation area would 'undoubtedly yield results in increased output through higher yields and double cropping even if no additional supplies of fertiliser were available'. But, again, those yields would bring 'further stimulus to demand for new seeds, fertiliser and plant protection materials'. This general dynamic was at the core of his approach, and it emphasised short-term results. Its longer-term consequences, however, in terms of what has been described as 'irrigation anarchy' in South Asia, suggest some of the costs of buying time.[73]

Plant protection

A program of plant protection, Crawford advised, must be regarded 'as one of the four principal elements in the high yielding varieties program.' The dense planting on which increased production targets depended would almost inevitably be accompanied by problems of disease and pests.[74] Constant research

73 See T Shah *Taming the Anarchy; groundwater governance in South Asia* (Washington: Resources for the Future, 2009).

74 Crawford foresaw the risks of outbreaks of pest and diseases on crops grown under such conditions and with a narrow genetic base. Outbreaks were to ensue especially in rice production in South East Asia.

and attention, active field programs (with mobile services in the dominant areas of intensive small-scale cultivation and aerial spraying for large crop areas) must be supported, including arrangements with domestic and overseas firms for the manufacture of crop protection materials and equipment. Crawford was aware of the likely disparities in access to such services and called for special measures, such as improvement of tools for small farmers and maximum extension services for their benefit. He was also aware of the hazards of chemical exposure (Rachel Carson's *Silent Spring* had been published in 1962). In all this, revealingly, he placed much trust in the development of more effective 'modern materials', although accompanied by his doubts that Indian authorities were yet well enough equipped in monitoring their use.[75] Adequate local expertise was central to the effective and compliant application of new technologies.

Rural credit

Crawford's social justice credentials, won through the 1930s, shaped by his experience of rural banking in Australia, was evident in the Bell report's coverage of rural credit. That discussion emphasised the need for access to finance for small-holders and asset-poor farmers unable to qualify for loans under conventional criteria. Much of what his report proposed hinged on farmers' ability to access funds at a level beyond 'on the spot' dealings with local lenders. Here, too, there was an urgent need for coordinated government regulation.[76] Also vital was the provision of research-informed extension services, there being 'tremendous' scope to improve 'soil and water management, water and soil engineering, plant physiology, crop rotational practices, and not least the economics of farm practice, fertiliser applications and so on.' As noted, however, Crawford emphasised that the 'new' should not assume the sudden obliteration of 'old' practices if the latter could still be 'pushed to their limit' with a gain in productivity. Extension provision needed to take account of incrementalism while still drawing on the best available science. There were not enough Indian scientists to carry out the extensive research needed to meet these challenges, so in a period of inevitable

75 *Agricultural Policy in India*: 82

76 *Agricultural Policy in India*: 97

transition 'it will be to India's advantage, in all fields of research, to continue established cooperation and to develop new joint programmes in the effort to deal with new problems and longstanding gaps'. The recognition and affirmation of established practices and relationships was central to his program of intervention.

Foreign exchange

Integral to these reforms was the 'acute foreign exchange situation overhanging the hopes of economic development in India'. The pressing need was for the agricultural sector to realise its potential in expanding exports and reducing imports. In the short term, however, there must be 'considerable enlargement of foreign exchange resources allocated … for the purchase of fertiliser, equipment and other physical inputs.' In these few sentences, Crawford captured an eternal dilemma for policy makers. 'Agriculture cannot be expected to expand its export earnings' to the desired degree 'if key input and investment items in short domestic supply are not made available'. Crawford had made much the same point on the need for planned and long-term directed investment in his advocacy for Australian rural reconstruction in the 1940s and through the Committee of Economic Inquiry which was winding up in Australia at the same time. The 1965 report of that inquiry, chaired by Sir James Vernon, was comprehensively rejected as an intrusion on the prerogatives of government. But while that controversy ranged in Canberra, Crawford could be more assertive in his dealings with India. Drafting his volume for the Bell Report in Washington, he wrote:

> There is little point in extending this discussion further. Certainly at this time all the evidence points strongly to the wisdom of pushing on with plans for domestic production of fertiliser while in the interim going to the maximum possible allocation of exchange for imports. This view is held not only in terms of the foreign exchange argument but even more strongly in terms of the importance of an expanding agriculture sector to growth and 'health' in the rest of the economy.

He ended on a positive note:

> If as we believe likely given the resources, India reaches 110 million tonnes of foodgrain output or better in 1970-71 there will be established a momentum not likely to falter thereafter.[77]

Clearly, the report was an intensive package, with core principles that would endure as Crawford's philosophy was applied with varying emphases elsewhere. The 'Bell-Crawford Intervention' (as it came to be known) was not so much striking in the originality of its elements – the themes of the 'long and lucid' analysis offered by Crawford and his team already had currency, and their own narratives, including under the guidance of India's Minister for Food and Agriculture, Chidambaram Subramaniam.[78] It was the synthesis and advocacy that mattered, given the authority of the World Bank and of course the scale of funding for implementation that followed.

Within the Bank, there were those such as Robert Picciotto, recently graduated from Princeton, who at first found Crawford's report 'full of platitudes and nonsense', and told him so. But these criticisms were disarmed by the patience with which Crawford and Ladejinsky responded to his questions and converted him to the approach. As Picciotto would later reflect after a forty year career at the Bank, Crawford's approach might have meant 'we didn't pay much attention to community-based work or the environment', but 'basically we did the right things for the challenges of the time'.[79] Significantly, Crawford's arguments were underscored by more directive language elsewhere in the report. Crawford's emphases on the careful management of foreign exchange, for example, fed into the pressure the World Bank exerted in India to devalue the rupee. It was

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77 By 1977 total cereal production in India exceeded 114 million tonnes and by 1985 had reached 137 million tonnes.

78 Kapur, Lewis and Webb, *The World Bank:* 388-89: A Varshney, 'Ideas, Interest and Institutions in Policy Change: Transformation of India's Agricultural Strategy in the Mid-1960s', *Policy Sciences*, vol, 22, no. 3, 1989: 291.

79 R Picciotto, interviewed by WH. Becker and MT Zenni, 1 November 2000, World Bank Oral History Project.

'cowardice', the volume on finance argued, for the government to continue to bargain the cautious politics of price stability against the 'inflationary pressures' needed to stimulate productivity. India's farmers were being kept poor in a 'vicious cycle' that the state must break, even if that meant 'frictions of a social-political character'.[80] The newly established Indian Agricultural Prices Commission gained support from these propositions.

As David Hopper recalls, a vital part of Crawford's influence lay in recognising existing work by Indian scientists. The report enhanced their influence on the Indian government, and not insignificantly offered a spur to a wide-spread sentiment seeking to escape an image of Indian dependency on the aid of others. Interviewed by the authors in 2018, Swaminathan still sat in an office adorned with many images of Mahatma Gandhi. At the other end of the bargain, Lyndon Johnson, as President of the United States, was growing increasingly restless with India's lack of progress in lifting itself from that same dependency, which had the potential also to discredit the domestic and international characterisation of US assistance. Confidential agreements between the Indian and US governments had already included commitments to 'dramatize and mobilize public sentiment [in India] to demonstrate the urgency of action in agriculture'.[81] In late 1966, Walt Rostow, the United States' National Security Adviser (and himself a most influential theorist/advocate for international development) summarised for President Johnson his recent meetings and representations on India. There had been a candid exchange with India's ambassador, who advised that current levels of domestic political violence, targeting regional officials, had value in goading India's national government in desired directions. Rostow also met with Crawford, who outlined the basic elements of the Bell Report. The president might be interested to note Crawford's opinion that rising morale among Indian agricultural bureaucrats and scientists was providing a foundation on which to

80 S Please, *Problems of Public Financial Policy* (Washington: World Bank, 1965: Bell Report, vol, 9) 40.

81 B Riley, *The Political History of American Food Aid: An Uneasy Benevolence* (Oxford: OUP, 2017) 261-262; Telegram from the Embassy in Italy to the Department of State, 26 November 1965 at: https://history.state.gov/historicaldocuments/frus1964-68v25/d253

build: both groups welcomed prospects for the more systematic support and application of research, and were finding new points of collaboration.[82]

The wider context for Rostow's summary was the calculation that while Soviet aid to India prioritised state-led industrialisation, a turn to agricultural emphases might offer the Johnson administration an alternative path of persuasion. At a personal level, as Howard Shaffer argues in his biography of Chester Bowles, then the US ambassador to India, this investment in rural development was one way in which a principled 'new dealer' from the 1930s might adapt to the darker shadows of the Cold War.[83] These continuities as well as opportunities were there for Crawford as well. So was a certain canny political judgement. Rostow passed on to the president Crawford's advice that Johnson's 'short-leash' policy of linking food aid to India to progress on the policy reforms the United States desired was serving a constructive purpose, if with much less confrontation than the Indian ambassador was prepared to endorse. [84]

Eschewing study of sensitive political issues: an agenda for research

If the Bell Report was one indication that the World Bank was becoming a 'secular empire' in its capacities to set the terms of debate around technical interventions, then Crawford had gained a certain place in its court as a 'trusted adviser'.[85] His 'stand away' positioning had a range of advantages for all parties: his relative independence as a 'development diplomat'; the consolidation of expertise and influence he was seeking to achieve in advancing Australia's interests; and the World Bank's own desire, along with a network of philanthropic agencies, to

82 Walt Rostow to Lyndon B. Johnson, 14 November 1966, LBJ Presidential Library, 107. S. 9/27/78; S George, *Faith and Credit: The World Bank's Secular Empire* (New York, Routledge, 1994) 37.

83 H Schaffer, *Chester Bowles: New Dealer in the Cold War* (Cambridge Mass, Harvard University Press, 1993).

84 Rostow to Johnson, 14 November 1966.

85 Kapur, Lewis and Webb, *The World Bank*: 390

build on the agenda which would become associated with the green revolution, avoiding as much as possible the overt politics of Cold War loyalties. Some Bank staff came to talk generally of a 'Crawford kind of vision' – 'biological-chemical-technology-oriented' – gaining influence in these years.[86]

Drought in India deepened into 1965 and 1966, setting the context for the Bank's first assessment of the issues and responses the Bell mission identified. If there had been a slow response to several of Crawford's recommendations, they were nonetheless serving other purposes, not least in India's own political evolution. Lal Bahadur Shastri succeeded Jawaharlal Nehru as the nation's second prime minister in 1964, and war with Pakistan was part of the context for Shastri's slogan 'Hail the soldier, Hail the farmer'. But much of his power (and that of Indira Gandhi, who succeeded him in 1966) came from the second salutation: a re-affirmation of agrarian interests, even an agrarian populism. Much of Crawford's work in India would be framed by need to maintain that political bargain. If the World Bank wanted to get the soldier back to the farm, Shastri and then Gandhi's emphases enabled India to reposition itself in the politics of development. In 1968 the benefits of that manoeuvring would be enhanced when Robert McNamara was appointed the Bank's president. Having resigned from the US Department of Defence at the height of war in Vietnam, as the mathematics of strategy he excelled in translated into the public despair at bombing ratios, body bags and graphic nightly news, McNamara was an unexpected (if for the Johnson administration expedient) appointment to the Bank. In seeking an equivalently quantifiable sense of progress in human welfare, McNamara turned his attention towards tangible improvements in agriculture, and the kind of quantifiable outcomes that food production, and the avoidance of hunger, offered.[87] Perhaps there is a parallel here: at the same time as Crawford was finalising his contribution to the Bell mission, in drafting sessions in Washington, he suffered the humiliation of seeing his advocacy for a more systematic approach to Australian economic development in the Report of the Committee of Economic Inquiry roundly ridiculed by the

86 M Yudelman, interviewed by J Lewis, 12 September 1991, World Bank Oral History Project: 5.

87 D Shapley, *Promise and Power*: 476

Menzies government. International development for both men perhaps offered a more affirming path than the murk of domestic politics.

By early 1966, Crawford was describing himself to close colleagues as 'a major consultant' to the Bank as well as being encouraged by the government of India 'to visit at least once a year to report to them on progress'. [88] For senior Indian civil servants, such as Balaram Sivaraman, he became a trusted mediator who 'helped India keep the World Bank on our side'.[89] To those he most trusted Crawford confided that he was being asked to carry 'private messages' back from Shastri to the Australian government on such topical issues as mutual interests in Japan. And these relationships, Crawford noted, to underscore that they were of more than personal benefit, were 'proving invaluable in developing academic and non-government' networks.[90] All of these connections endured, becoming more formalised and evolving with political circumstances, effectively for the rest of his life.

As we will see, the early 1970s brought another phase to them, as global food insecurity entered into a fresh sense of urgency with the 'food crisis' of 1972-74, gaining further traction, and the Whitlam government's cultivation of a 'relation of substance' with India became one element of Australia's new assertion of regional independence.[91] For Crawford an element of personal friendship would deepen with Indira Gandhi, if one he would sometimes protest at bringing with it the obligation for more advice and more time spent in some aspects of his visits to India – the meetings, cocktails, dinners and bow ties – that he could find wearing. But those personal connections were appreciated by others seeking access to senior levels of the Indian government.[92]

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88 Crawford to Slater, 20 May 1966, CP, Box 370.

89 B Sivaraman, *Bitter Sweet: Governance of India in Transition* (New Delhi: Ashish Publishing House, 1991) 327.

90 Crawford to Slater, 20 May 1966.

91 D Lowe, 'High Commissioners as Scholarly Observers: Crocker on Nehru, and Grant on Indira Gandhi' In *Rising Power and Changing People: The Australian High Commission in India* (Canberra: ANU Press, 2022) 211.

92 WD Hopper, interviewed by K Feltault, 2 April 2004, World Bank Oral History Project: 33.

Whitlam, Gandhi and Crawford 1973

Yet it remained more in the domain of those non-government interests that Crawford worked most comfortably, and productively. The times suited these relationships. From 1966 under the presidency of McGeorge Bundy – who as national security adviser had served no less restively than McNamara in the Johnson administration – the Ford Foundation undertook a major review of its overseas development programs. Bundy hoped to prioritise educational investment, collaboration with other nations, and the development of 'the competence of leaders [in developing countries] – in public and private life, in government, business, education and other fields – to understand the problems they confront'.[93] In this same matrix, the ANU was benefitting from Ford grants largely brokered by Crawford in several areas, including support for research on Indonesia and Papua New Guinea and, in 1966, the establishment of a Strategic Studies Centre. The latter, again building on already established informal exchanges, aimed to enhance contact between the relevant civilian and military arms of government, Australian researchers and overseas 'think tanks' (a term then coming into usage, and indicating the increasing influence of such bodies).

93 Micinski, 'Changing Role': 1313-14.

The particular concentration of such resources in Canberra, and Australia's regional leverage, had attractions of their own for these international agencies. Crawford was well positioned, and adroitly positioned himself and his university, to benefit from these opportunities. He was, as always, reaching out for access and funds, and inwards to build teams. His busyness might have meant he was not always actively engaged with the day-to-day aspects of initiatives at the ANU, but his practice, his skill, was to foster younger colleagues to take up those roles. Heinz Arndt was one, brought to RSPacS in 1963 to shoulder much of the running of the Department of Economics: he would also launch the department's focus on Indonesia. But as Arndt conceded, he like many served in Crawford's 'empire': 'he was enormously influential and powerful and authoritative and to be quite frank … we wouldn't take any major decision … without his approval'.[94]

Building on these networks, early 1969 brought the prospect of better coordinating and sustaining an emphatic turn to international agricultural research for development. The Ford and Rockefeller foundations, several other agencies, and McNamara came together for intense discussions at the Rockefeller conference centre at Bellagio, Italy. 'The importance of vastly superior technologies of production was a thread running through the entire meeting', the summary of proceedings recorded. Until those technologies were refined and applied all other measures of development assistance were likely to have 'disappointingly little impact'. The core recommendations from this summit centred on the need to strengthen and extend a system of international agricultural research centres, four of which had already been established with foundation support, focusing on rice, wheat and maize and tropical agriculture.

The remit envisaged for these centres – to include requirements for 'fertilisers, seeds, equipment, water, credit [and] economic incentives' – does not imply a direct line from the Bell Report, but certainly underpins its significance in core emphases.[95] McNamara returned to Washington 'fired with enthusiasm' from

94 H Arndt, interviewed by S Foster, 14 April 1990, ANU Oral History project, ANUA 44-13: 17.

95 *Agricultural Development: Proceedings of a Conference* (New York: Rockefeller Foundation, 1969) iv, 70

this meeting. Crawford – by then on retainer to the Bank – was 'enlisted' to assist in considering how best to 'flesh out a proposal' that might carry these ideas forward.[96] In July Crawford wrote to McNamara, encouraging him to accept an invitation to visit Australia 'to stimulate interest not only in the World Bank but also in ways and means the Australian people could contribute to its work'. Crawford added 'we have not yet met but, if you wished I expect to be in Washington in September/October for my usual visit as Consultant to the Agriculture Department'.[97] McNamara did not come until 1974, but Crawford kept his appointments in Washington. So as the Bank's senior staff set to work on their own proposals to implement the Bellagio agenda, Crawford was drawn into (and worked to ensure he was part of) these next steps.

Those initial discussions added 'economic, social and agricultural policy' to the tasks for perhaps one of the next generation of institutes. In this context, Eugene 'Rocky' Staples, then leading the Ford Foundation's work in South and South-East Asia, encouraged Crawford to develop his ideas on 'a useful program of economic and social research into problems of agricultural and rural development'. Crawford's reply to this invitation offers a rare expanded and frank personal reflection on his approach to many issues underpinning his work. It is worth considering in detail.

A World War II fighter pilot in the Pacific, who joined the US foreign service with postings including Moscow (where he oversaw the cultural program associated with the American National Exhibition of 1959), Staples had first invited Crawford to sketch out ideas over breakfast at the International Rice Research Institute. IRRI had been established in the Philippines in 1960 as the first of the system of International Agricultural Research Institutes (IARIs) under discussion at Bellagio. Centrally associated with the green revolution, IRRI reflected a transition from the disappointing outcomes associated with models of 'village development' in the 1950s to more scientifically-driven 'project-oriented research', undertaken by

96 W Baum, *Partners Against Hunger: The Consultative Group on International Agricultural Research* (Washington: World Bank, 1986) 36.

97 Crawford to McNamara, 22 July 1969, World Bank Archives, N-473-4-03.

well-resourced and relatively independent interdisciplinary teams in effectively transplanted modern laboratory complexes and residential compounds. The hybrid varieties developed – in IRRI's case a 'miracle rice', 'shorter, greener, with fewer leaves and more panicles' – in some ways matched the fusion of local labour and international expertise that would be engineered at the similar centres which followed.[98] That mix included: the distribution of new germplasm to cooperating nations; a career-base in research with sufficient independence to assure responsiveness to the needs of producers in those nations; a 'mission' orientation emphasising long-term continuity in research and measurable local productivity gains.[99] After IRRI, the next institute was the International Maize and Wheat Improvement Centre (CIMMYT), established in Mexico in 1963, and in 1967 centres dedicated to tropical agriculture in Nigeria and Colombia. Other proposals were under active consideration. Staples was interested in how Crawford, as an economist, would seek to guide the further coordination of what has been termed a new era of 'science based and industry supported' agricultural research.[100]

Beginning with customary self-deprecation, Crawford vowed that he would not repeat 'my older arguments for eschewing study of sensitive political issues, issues of welfare and income distribution'.[101] Those concerns were important, but they needed to wait their turn – here, again, Crawford saw green revolution science buying time. Prematurely addressed, or treated in the abstract, those wider questions were of 'slippery and uncertain substance'. The immediate priority was a 'focus on resource use, not on the redress of inequality for its own sake, or of injustice for the sake of righteousness'. As his emphasis in the Bell Report had indicated, first steps should avoid the displacement of labour and the accelerated disruption arising from technological change by first boosting production as far as possible within existing social forms.

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98 N Cullather, 'Miracles of Modernization: The Green Revolution and the Apotheosis of Technology', *Diplomatic History*, vol. 28, no. 2, 2004: 232-237.

99 S Wortman and R Cummings, *To Feed this Word: The Challenge and the Strategy* (Baltimore: Johns Hopkins, 1978) 152-3.

100 Wortman and Cummings, *To Feed this World*: 2.

101 Crawford to Staples, 17 December 1969, CP, Box 141.

> I would argue for policies to maximize full employment, not growth alone…[The] choice between [the separable goals of growth and welfare] is a hard one but if choose I must it would be for the development route that balances greater output with a greater employment of labour even if this entails real costs in lower efficiencies.

Crawford nominated the microeconomics of the allocation of resources as most necessary in guiding the 'useful adoption' of new practices, if informed by the perspectives of agricultural geography and social anthropology in understanding the interdependence of local environments and cultures. To some extent, of course, this had been his own path as a student, teacher and official in the 1930s. The adoption of that disciplinary mix must in turn be informed by the relative urgency of the needs to be met:

> I would not hold the study to food production only. Agriculture as a source of livelihood for farmers and of critical importance to sustenance of general national economic growth must be viewed in its totality, although, again, operational necessity will demand selectivity and I have no doubt that the food needs of developing countries will loom largest in its study priority.[102]

Given the volatility of debates in development economics at that time, Crawford's candour could seem almost simplistic.[103] He wryly 'made my obeisance to the many gods of social science [and] … left an appropriate offering at the temple of growth'. It was not that he was unaware of the concurrent debates over the 'grand models' of development, of the demands from 'third world' countries for more attention to the fundamental inequality among nations, or of trends towards deeper, structural poverty in underdeveloped areas .[104] Given his involvement in campaigns to raise public engagement with the need for development aid,

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102 Crawford to Staples, 17 December 1969, CP, Box 141

103 See GM Meier, 'The Old Generation of Development Economists and the New' in GM Meier and J. Stiglitz (eds*), Frontiers of Development Economics; The Future in Perspective* (New York: Word Bank and OUP, 2001).

104 JG Crawford, review of *The Attack on World Poverty* by A Schonfield, *Australian Outlook* 16, no. 1 (1962): 91.

he was also alert to the concurrent issues of population control. These concerns, however, did not figure in his reflections for Staples. In fact, as India increasingly informed his message in those campaigns, he emphasised that its 'courageous' embrace of 'scientific agriculture' offered the alternative prospect of talking 'with some confidence of substantial self-sufficiency in food grain supply by the early seventies'.[105] This pragmatism was shared: McNamara, at that first Bellagio meeting also emphasised the distinction between the urgency of 'feeding masses of people' and 'later generation problems' which needed reflection and planning, but not priority.

Hope if not careless rapture: international education (AAUCS)

Already we have a sense of multiple lanes. Crawford's place in the building momentum of international agricultural research is striking: he might not have been 'at the table' in forums such as Bellagio, but he was certainly influencing the terms of discussion. He also had more local aspirations to pursue. There is not space in this volume to appropriately recognise his commitment to the development of Papua and New Guinea, but here his pragmatism had a rather different emphasis. He used his position at the ANU to highlight the 'desperate urgency' of 'giving a rising and increasingly dominant share in the political and administrative machinery to the people we are training in self-government', even if that process needed to forge ahead of the economic structures appropriate to support nationhood.[106] Through the 1960s he underlined the particularly pressing challenge of 'disorganised' urban resettlement in PNG – driven by the attractions of wage labour – while encouraging more 'organised' processes to manage issues such as land tenure in the highlands. Agriculture needed to be got right first, as a social economy that must provide the foundations for all else. As a member of the founding Board of Directors of the Papua New Guinea Development Bank in 1966, he supported making 'developmental credit' more readily available in

105 Crawford, 'India: Planning as an Exercise in Administration', *Public Administration*, vol. 26, no. 3, 1967: 238.

106 *Canberra Times*, 30 May 1962: 3.

the territory, not only 'to encourage rapid expansion of private enterprise' but 'particularly to finance small scale native agriculturalists'.[107] Seeking to influence the policies of the Department of Territories on the resumption of European-owned land, for example, he also devoted much energy to the development of educational structures to support indigenous leaders.

Appointed Vice Chancellor of the ANU in 1968, Crawford took the opportunity of a place on the Australian Vice-Chancellors' Committee (AVCC) to advance a much broader proposal of collaboration between Australian and South-East Asian universities. He hoped to mesh applied science, research-led education and public advocacy into programs linking international education, aid and assistance. Foundations for this initiative went back to a 1962 discussion between the Indonesian Minister for Higher Education, Professor Toyib Hadiwijaya and Australia's ambassador, canvassing the value of strengthening teaching and research at regional universities. A visit to Indonesia the following year by professors of agriculture from Adelaide, Melbourne and Sydney universities refined these details. Always framed by a diplomatic interest in defusing awkward aspects of Australian-Indonesian relations, the venture stalled during Confrontation between Indonesia and Malaysia from 1963.[108] In 1968, building on exchanges with Mick Shann, the former ambassador in Jakarta and then first assistant secretary in the Department of External Affairs, Crawford encouraged the AVCC to renew this initiative.

The context shared something with concerns Crawford expressed to Staples: was the best use being made of 'the rationality of men to provide opportunities for the useful and efficient employment of human energies and skills'? More specifically, Crawford was aware of increasing questioning of the dissipation of resources into uncoordinated and un-prioritised projects, and into under-graduate exchanges

107 See papers held at NAA A452 1970/4827

108 See David Lee, 'Shaw, Sir Patrick (1913–1975)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, https://adb.anu.edu.au/biography/shaw-sir-patrick-11667/text20845, published online 2002, accessed online 5 August 2021; First Progress report of the AAUCS, published by the AVCC, December 1970

associated with the Colombo Plan. The imperative, he argued, was to build the direct and institutionally-supported exchange of capacities to home countries. Beyond agriculture, several disciplines were attracted to the concept of senior-level leadership in research and teaching programs in Asia: the medical sciences, for example, tapped into the theme of 'population control' flagged in early sub-committee discussions. While agreeing to provide a little less than a two thirds of initial funding, External Affairs proved wary of the sensitivities likely to be attached to such specific agendas – again, this was an issue that had concerned Crawford's early engagement with the Freedom from Hunger campaign and the formation of the ACFOA. In a move that no doubt pleased him, and more than likely showed his influence, the department turned to 'the scientific, technological and socio-economic aspects of food production' as a safer first priority.[109] In this field, as Crawford had told an ANZAAS symposium, 'hope' if not 'careless rapture' was justified, particularly as Australian expertise could encourage an ethic of 'self-help' in global programs that would otherwise be dominated by American interests. [110]

Under Crawford's foundational chairing, the Australian Asian Universities Cooperation Scheme (AAUCS) commenced in late 1969 with three Indonesian regional universities – Universitas Hasanuddin (Makassar), Universitas Udayana (Denpasar) and Universitas Brawijaya (Malang) and the prospect of expansion to Malaysia and Singapore, and potentially Thailand. Reviewing progress in 1971, Crawford was already managing pressures to expand the scheme to other universities and a broader disciplinary mix. Balancing academic exchanges that needed to be kept distinct from existing Australian aid but still complement national policy priorities, he began making the case for the nascent University of Papua New Guinea (of which he became chancellor in 1972) and the University

109 Report of first meeting of AVCC Sub-Committee on Aid to Asian Universities, 10 January 1969, AAUCS Standing Committee and Executive Papers, Swan papers, MS119/5; Progress Report of AVCC Sub-Committee, 5 September 1969, Swan papers, MS119/4; 'Economics of Australian Assistance Programs in Asia', typescript, undated, Swan papers, MS1120/4.

110 'Economics of Australian Assistance Programs in Asia', typescript, undated, Swan papers, MS119/4

of the South Pacific to be included in AAUCS programs. He also urged AAUCS research programs give attention to 'the social, and economic consequences of the "green revolution"' (the scare quotes here perhaps revealing) that were already raising their own concerns.[111] Food technology, forestry and English language training could, he agreed, be added to this agenda, but they must not dilute its focus. Irritated by concerns within and beyond governments that the universities were 'only in it for the money', Crawford noted wryly that the Scheme was much cheaper than the Colombo Plan, given it drew on the time and expertise of senior academics with nothing more than immediate replacement costs being met. Even these 'exacting terms' did not, he observed, diminish Australian academics' interest in the scheme. But nor did they fully address the tendency for exchanges to drift back to shorter-term commitments rather than sustained partnerships.

By 1972 the Scheme included a program in agricultural economics at Universitas Gadjah Mada (Yogyakarta) which was first led by an ANU doctoral graduate, Peter McCawley. This investment soon attracted American funding, as did the appointment of many other non-Indonesian academics teaching at Indonesian universities.[112] Although the task of strengthening Indonesian universities was formidable, Crawford still judged 'the policy of steady expansion determined within a framework of objectives, experience and known resources has proved to be flexible and satisfactory.'[113] Stepping away from AAUCS in 1972, Crawford was proud of its success, even as broader transitions in aid priorities and bilateral and multilateral programs began redefining international research and education exchanges. Success also brought its own pressures, including on budgets: by 1984

111 'Report on the Future of the Australian Asian Universities Cooperation Scheme', prepared for the AVCC, 17 January 1972: 12-13: NAA A4250/6/1977.

112 Information supplied by Peter McCawley, 23 March 2021

113 Although Crawford may not have foreseen the specifics of the full fee international student program in 1985, it is clear that the experience and familiarity gained through the AAUCS was important in the adoption of the program by Australian universities and by scholars from Indonesia, Malaysia, Singapore and Thailand, all of which were targets for the Scheme, and just as Crawford observed in his review of the Scheme, that they had joined in the spirit of what Crawford described as 'exacting terms.'

the Scheme had been recast as an independent not for profit company, albeit with commercial goals easing aside the essentially voluntary provision of skills with which it had begun. Offering consultancy services and drawing on the figures Crawford mentored (including one of the present authors, Blight), in 1981 the Scheme had been rebadged the Australian Universities International Development Program, becoming as IDP a successful agency in the increasingly competitive domain of international education.[114] His leadership of the AAUCS reflected Crawford's enduring concerns with the need to avoid the waste of resources in any 'well-intentioned but unplanned, almost random collection of responses to requests' as they multiplied in international development – a concern to which we will return in Chapter 5.[115]

114 It was renamed the International Development Program of Australian Universities and Colleges; A Lazenby and D Blight, *The Story of IDP: Thirty Years in International Education and Development* (Canberra: IDP, 1999) 13; see also L Falvey, *Derek Tribe: International Agricultural Scientist* (Canberra: Crawford Fund, Canberra, 2012) 138.

115 'A Proposal to Establish an International Research Assistance Foundation in Australia', Canberra, January 1976: 11

Chapter Three

The Problem Seems Not To Be the Farmer: CGIAR and TAC

Scientists must be given their heads

As he reflected on his achievements in India, and as the AAUCS found an element of stability, Crawford was drawn in to a wider application of the policy package he had formulated. The Bellagio meetings, convened under the auspices of the Rockefeller Foundation as noted in Chapter Two, were transforming the terms of international agricultural research and development in ways that matched, to some extent reflected, his views. 'Science rather than food shipments' became accepted 'as a more sustainable way to deal with world hunger'. An unprecedented alignment of aid groups, governments and other donor organizations was envisaged as offering the prospect of 'a sustained assault' on fundamental global aspects of access to and production of food.[116] Inevitably, the distinct politics of such varied interests were in play. The Food and Agriculture Organisation (FAO), for example, was concerned by what seemed to be a profusion of competitors for its distributive work. Robert McNamara, as president of the World Bank, saw his institution becoming central to the shaping of a fusion of scientific innovation and poverty reduction in a more technocratic mode. His was an ambition that discomforted a number of governments, especially in Europe where such activities offered countries such as France their own useful national combination of science, soft diplomacy and strategy.[117] The relative informality of the early discussions above Lake Como would prove conducive to Crawford's influence as Bellagio brought together 'a particular amalgam of scientists and aid administrators' who

116 L Hardin, 'Bellagio 1969: the green revolution', *Nature*, vol. 455, no 25 September 2008, pp. 470-471

117 D Byerlee and J Lynam, The Invention of the International Agricultural Research Centre Model and the CGIAR System: DOI:10.13140/RG.2.2.29661.23520, 66-67

could begin to connect new technologies and the funds required to develop them in frameworks of relative institutional independence.[118]

In February 1970 Crawford was one of the twenty-two invited participants at the second of those gatherings, seeking more formal directions. His paper, 'Priorities in Research', began with a characteristic 'distrust for formulae as substitutes for judgement': 'pragmatism is essential but it doesn't mean any old judgement is forgivable'. He reminded the group of the 'wide validity' of his work with the Bell team on India, the relative efficiency of internationally coordinated research centres, and the need to give close attention to the social and economic aspects of 'the vast changes in landuse systems and productivities now begun and to be stimulated further'.[119] He insisted that whatever program might emerge from discussions, there was an undeniable need for a substantial expansion of research effort: 'scientists must be given their heads' in finding solutions.[120] There needed to be new research centres, each directed at an identified problem, independent of the need to cultivate favour, capable of 'break-through' work and with an international awareness balanced by links with national and regional agricultural support systems ensuring direct applications of their work in the field.

These propositions fitted the direction of discussion. The consensus of Bellagio II was that:

> The problem seems not to be the farmer. The focus of attention must be on the productive sureness of the profferred technological package, on the incentives in its profitability, on the infrastructure of market and other rural services available to the cultivator to support his decision for progress, and on the national ethos for development.[121]

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118 W Baum, *CGIAR: How it all began* (New York, CGIAR, 1985) 5

119 Notes in 'Agricultural Research Priorities', CP, Box 141.

120 Notes on 'Priorities in Research', 5 February 1970, prepared for Bank officials, World Bank Archives, A1994-067.

121 L Hardin, 'Accelerating Agricultural Modernisation in Developing Nations: A summary of findings' at https://cgspace.cgiar.org/bitstream/handle/10947/89/bellagio2.pdf?sequence=1: 3

The remarkable 'vitality' offered by the 'so-called green revolution' was reaching 'to farms usually considered traditional, even subsistence, in their production patterns'. That potential demanded recognition, even as it raised issues of its own:

> The new farm technologies and their potential high productivity may create or aggravate regional disparities in per capita incomes. Also, they may reveal in stark terms some of the issues of equity surrounding national patterns of income and wealth distribution, and may contribute to further rural under-employment or unemployment, exacerbating urban migrations of rural peoples or rural social and political unrest. [122]

That February meeting agreed these 'are real problems … which should be urgently addressed'. They must form part of a research agenda driven by calculations of 'greatest need' in food production, carried forward by an expanding system of international research centres, overseen by 'a consortium or consultative group ... [which would] encourage multilateral and bilateral donors to participate in the necessary funding', and closely monitor performance in research and training.[123]

Crawford was at the heart of these formulations. The programs associated with them brought fresh intensity and direction to his life – not that he lacked other responsibilities. There was always a restlessness to his work, and perhaps a search for affirmation. As Vice-Chancellor of the ANU since 1968 he had been integral to many dimensions of the university's growth and diversification, and not least to the management of student unrest. 'He was innovative', the ANU's historians of this period judge, 'but with a keen appreciation that innovation was subject to financial and institutional constraints'. If he had a fault, they add, 'it was his willingness to take on too much'.[124] At the time his personal life was deeply troubled by the increasing physical and psychological ill-health of his only daughter, a brilliant student of genetics at the University of Sydney but whose

122 'Accelerating Agricultural Modernisation': 1

123 'Accelerating Agricultural Modernization': 5

124 SG Foster and MM Varghese,. *The Making of the Australian National University* (Sydney:Allen and Unwin, 1996) 183.

move into graduate study at the ANU taxed her strength and unsettled the home she now shared with her parents. The intense demands on Crawford's time, and his frequent travel, would be negotiated around these domestic strains. While often lamenting his stress and exhaustion, his pace did not falter.

Agricultural statesmen: CGIAR

In April 1970 a third Bellagio meeting, comprising the heads of the major assistance agencies, agreed on the formation of such a consultative group. Its terms, form and function took some negotiation. Leading-up to that meeting, Crawford offered guidance on the tactics as well as the substance of the processes in hand. The Bank should early 'show the colour of its money' to win assent from various 'hesitant' agencies; McNamara would do well to have an astute senior Bank officer by his side, someone in a better position to read the room. Whether so advised or not, McNamara's line at that April meeting would have pleased Crawford: he proposed an internationally-pitched venture, capable of attracting 'outstanding scientists from a number of countries and with a variety of disciplines', who would in turn 'encourage and strengthen national research and extension facilities in developing countries in a variety of ways: by making results of research available to them' in training as well as outputs. The next meeting of the Bellagio group, in Washington in December 1970, clarified the further funding of the present centres, and outlined the prospect of additional ones. Feasibility studies were to identity the priorities of new ventures, with strong cases to be made for investigating upland crops in Asia; food legumes; livestock production and health in Africa; water management systems; and policy planning. To coordinate this process, a Consultative Group on International Agricultural Research (CGIAR) was established, sponsored jointly by the FAO, the World Bank and the United Nations Development Programme (UNDP). The Group's first meeting was held in Washington in May 1971, attended by 24 delegates spanning governments, international organisations and private foundations.

It was indicative of Crawford's status, and an endorsement of his objectives, that he was selected by CGIAR to be the first chair of the Technical Advisory Committee (TAC), a body seen as vital to the Group's functions, and central to

its capacity to win the support of sponsors. TAC's role was to advise on:

(1) global strategy for accelerating progress in agricultural, and especially food, production (and quality) in the developing nations;

(2) the quality and adequacy of proposals and programs designed to this end;

(3) gaps in existing knowledge or programs needed to accelerate food production and means to fill those gaps;

(4) appropriate distribution and allocation of resources to international agricultural research institutes, especially for new functions not already assumed by existing institutes, and;

(5) any other ways in which progress in agricultural and food production and rural improvement could be accelerated in the developing nations.[125]

'Technical', clearly, should not be read in a narrow sense. It certainly did not exclude the political aspects of guiding 'a convergence of … differing ideas and perceptions' already evident in agricultural research, of transitioning a loose system of centres addressing specific identified needs into a more coherent plan of international priorities, and balancing professional expertise, reputation and representation. Nor was it separable from 'a sense of great urgency about the food needs of the developing world'.[126] 'At best', Crawford reflected, the research TAC supported 'will buy time while population growth is brought under control'.[127] As McNamara explained, it was necessary for TAC to convene before the CGIAR could move on from 'primarily organisational' matters.[128] So the invitation to Crawford in May urged him to bring the committee together by June. Presumably there had been some fore-warning, given the speed of this coordination. As TAC

125 As summarised by W Baum, *Partners Against Hunger: The Consultative Group on International Agricultural Research* (Washington, World Bank, 1986) 60.

126 Baum, *Partners Against Hunger*: 2

127 G Crawford, 'Development in the International Agricultural Research System' in T Arndt (ed), *Resource Allocation and Productivity in National and International Agricultural Research* (Minneapolis, University of Minnesota Press, 1977) 285.

128 McNamara, Memorandum to Executive Directors, 4 May 1971, World Bank Archives, A1994-068

had its secretariat provided by FAO, it met in Rome. That first meeting drew together a group of twelve, divided equally between men from developed and developing countries (a formula with which the FAO was uncomfortable): three agronomists from Chile, Venezuela and Senegal; a plant geneticist from the United Arab Republic; an irrigation specialist from Japan; a plant pathologist from the United States; two veterinarians from Kenya and France; a hydrologist from the United Kingdom, as well as Hopper and Swaminathan. Crawford had a significant role in the selection of these men, as he would in determining whose terms should be renewed, and the replacements for those who were not.

While advisory, this membership was constituted to have eminence across the range of science disciplines required to assess the priorities and performance of the evolving CGIAR system. 'Men of towering stature' was one phrase used; Crawford spoke instead of 'agricultural statesmen … [free] to use their best judgment' both in responding to requests from CGIAR and in initiating enquiries on matters TAC might identify for itself.[129] In time, TAC would also assume review functions with regard to the CGIAR's performance. The Consultative Group was, by design, 'a peculiar committee because it had governments, private foundations and international organizations, all as members', not exactly representative, and initially deliberately excluding membership from developing countries which (it was rationalised) could not be expected to objectively assess their own needs. TAC, however, was intentionally more inclusive. Its individual experts ostensibly brought their own expertise as a cohort free of a sense of prior or vested interests. As a senior Bank official, Richard Demuth, observed, TAC was 'a very varied group of scientists from different parts of the world', whose task it was 'to agree on recommendations which the Consultative Group as a whole could accept'.

The rather awkward presence of fourteen 'observers' from interested donor governments and organisations at early TAC meetings required from Crawford some firm management of what was discussed in 'closed' (that excluded observers) and 'open' forums, and reflected his determination to protect the independence of the committee. That TAC was observed to work so well, Demuth added, was

129 Baum, *Partners Against Hunger*: 59.

because Crawford 'proved to be such a stalwart and magnificent resource'.[130] He certainly defended his patch, and could use TAC's authority (which to a large extent was dependent on his own, or at least was his to evoke) to trump the inevitable back-door inter-agency jockeying between established if ostensibly partner interests, the FAO and World Bank in particular.[131] The FAO officer, Peter Oram, with whom he was required to liaise (and with whom he developed a strong working relationship) was left in no doubt that all TAC correspondence should come direct to Crawford; that TAC must be 'disentangled' from any FAO issues relating to external influence; and that Crawford remained 'very fearful indeed of any attempt to bulldoze the TAC into action' for which it was neither equipped nor intended.[132]

Crawford had flagged his personal preference for new research areas at Bellagio in 1970: 'livestock work and policy advising'. While he would continue to make the case for these areas 'without being dogmatic' (but certainly persuasive), he worked at keeping TAC an open, equal forum. Early meetings agreed that cereals and legumes must receive highest priority, noting that while a 'considerable measure of success [had been] achieved in developing high yielding varieties of wheat and rice', in Asia especially there remained fundamental challenges posed by 'climatic hazards … pests and diseases' in meeting increasing needs for basic foods. Overall, he held TAC's mission to be food supply as distinct from the development of cash and industrial crops, and with a particular focus on the provision of protein. So, after cereals, legumes and starchy crops came ruminant livestock (cattle and rangeland improvement) as second priority; a third was aquaculture, fruits and vegetables; and fourth, industrial crops such as cotton and jute. Only once 'staple food supplies for the mass of the people' had been secured, an even lower priority was accorded to forestry.[133]

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130 R Delmuth, interviewed by Robert Asher, 19 March 1984, World Bank Oral History Project: 30.

131 Falvey, *Tribe*:72-75.

132 JG Crawford, correspondence with Oram at CP, Box 142.

133 Crawford, 'Development of the International Agricultural Research System': 287.

If these objectives were clear, the means could be more contentious. Crawford emphasised 'a need for pragmatism in assessing priorities', but also diplomacy as support for programs of research also meant substantial allocations of money, professional recognition, and – given the centres must have physical locations and a concentration of such investment – flow-on costs and benefits.

The location of a centre for livestock research, for example, required laborious consultation and inevitably touched on the sensitivities and interests of Francophone and Anglophone divisions in Africa. Crawford's mix of cunning, persistence and authority could cut through such wrangling, but the International Livestock Centre for Africa (ILCA). established in Addis Ababa in 1974, still troubled him on the basis that the diversity of ecological conditions and animal husbandries in sub-Saharan Africa made it difficult for its first two directors, although able scientists, to devise a research strategy rising above these contingencies.[134] An emphasis on creating new centres in developing countries rather than supporting existing programs in developed countries itself reshaped the international agricultural research agenda. It also raised the question of how to review the performance of centres: within what time frame, or with what level of comparative assessment? What protocols applied in beginning the winding down of some programs or for trialling others which were not yet to be in 'core' areas but would still need sufficient investment to attract suitably qualified researchers?[135]

Crawford, at least, had the privilege of presiding over CGIAR's foundational and rapid growth: from 1971 to 1976 its funding increased from US$20.8 million to $62.9 million, and its senior staff from 133 to 324. Yet this new bureaucracy, the coordination of expanding donor ranks, and associated path dependencies raised their own concerns. As early as 1973 the Ford Foundation was troubled by some of these strains, while conceding the 'experiment' was still unfolding and needed to be given time. Designing and implementing intensive (and expensive) evaluation processes, TAC offered a mix of independence and accountability that

134 Papers relating to the review of ILCA are in CP, Box 147, Folders 25-29.

135 See D Byerlee and J Lynam, 'The Development of the International Center Model for Agricultural Research', *World Development*, vol. 135, no. 6, 2020: 12- 13, 14.

largely reassured donors (who could choose where the funds they made available through the CGIAR went) with reports of 'extraordinarily high rates of return to investment in research'.[136] But the demands on the system could only increase, however steadfastly Crawford held to the line that 'not everything calls for an IRRI or CIMMYT in organisational terms'. There were pressures, for example, to move from crop to farming system models, and his own sense that socio-economic research was required to assess 'the very problems of, and opportunities for success in, the green revolution'.[137] As he conceded in a scoping document of 1973, 'it is increasingly being asked whether, in terms of environmental degradation' and the use of limited fossil fuel and phosphate resources associated with '"high yield" technology,' was the road to disaster. There was still, however, the 'desperate immediacy of feeding developing countries'.[138]

CGIAR, then, presided over a competitive rather than always happy 'family' of centres, watching among themselves for precedents and preferential treatment. Perceptions of TAC's impartiality and efficiency were vital. Overseeing it was quite a job, consolidated in meetings at least twice a year, at least one in Rome, the other locations selected to preserve a sense of donor access. Flying back from these meetings and consultations to Canberra, Crawford was managing budgets as well as research priorities on the basis of what was a part-time appointment, carried alongside other jobs, and with at best evolving administrative support. It was not an ideal arrangement. The Bank became concerned that 'the present linkage between Canberra, Rome and Washington is somewhat weak', and that 'the Chairman has been spread thin and needs support'. Whether that support could continue to be provided from Washington, should be supplemented by paid assistance in Canberra, or dealt with (as Crawford himself was proposing) on a 'consultancy firm arrangement' over which he might have more personal control

136 Kapur, Lewis and Webb, *The World Bank*: 400-401.

137 Crawford, 'Development of the International Research System',: 288-290

138 Crawford, 'Priorities for International Support to Agricultural Research', Sixth Meeting of TAC, 25 July 1973: 11. We have drawn on a comprehensive collection of papers relating to TAC proceedings made available to us by Dr Gabrielle Persley, and identified as 'PP'.

while saving the Bank money, was unresolved, and required its own shuffling of budget lines and discretions.[139] These considerations in themselves reflected the anomalies in his role, status and personal circumstances.

By the end of Crawford's term the existing four centres had stabilized and six new ones had been added.[140] In a 1977 reflection, Crawford was confident that the CGIAR – with TAC at its centre – would hold 'a high and honourable place in the history and achievements of international collaboration'.[141] But that place depended on hard choices. He held to the principles that TAC had particular obligations to assist those nations in which the proportion of the population dependent on agriculture for employment was large, in which food was mainly supplied by domestic production, with the costs of imports only likely to further strain already fragile economies. The criteria on *what* to support had also to be matched to *how* CGIAR funds should be spent. While extension work might flow from research and vice versa, it should not be a primary object of support. At various times Crawford expressed concern that CIMMYT's regional programs went beyond their research objectives, or that the work of the International Potato Centres (CIP) and the Centre for International Agricultural Research (CIAT) was devoted to advisory services rather than experimental inquiry.

Equally, having allocated budgets, Crawford insisted it was not TAC's role to scrutinise how funds were allocated internally within centres – that was the responsibility of those running the centres, under the guidance of trustees appointed with their own mix of interests. But inevitably these could seem to be

139 B Cheek to W Baum, 19 July 1974; J King to W Baum, 21 August 1974; 29 August 1974; Crawford to B Cheek, 5 March 1974: CP Box 144

140 International Potato Centre (CIP: Lima, Peru, 1972); International Crops Research Institute for the Semi-Arid Tropics (ICRISAT: Hyderabad, India, 1972); International Laboratory for Research on Animal Diseases (ILCA: Nairobi, Kenya, 1974), International Livestock Centre for Africa (ILCA: Addis Ababa, Ethiopia, 1974), International Board for Plant Genetic Resources (IBPGR: Rome, Italy, 1973), West African Rice Development Association (WARDA: Monrovia, Liberia, 1971).

141 Crawford, 'Development of the International Agricultural Research System': 284-85.

fine lines. In a 1973 position paper prepared for TAC's sixth meeting, Crawford took stock. 'So far we have mainly been asked to look at additive proposals', he noted, assessing each new venture in its own terms. 'But in the last analysis it is the disposal of resources within the whole effort which determines its impact'. Was it time for TAC to turn to evaluating the relative performance and prospects of projects, to propose 'shifting resources within and between research centres', and take seriously the 'the constant danger of petrification of research'. Yet to do so, Crawford added, would risk moving into 'executive responsibilities' which were beyond its mandate in scientific assessment. Should TAC, or could it, be both 'judge and jury'? He did not push the issue: but nor did he let it rest. It was among the matters 'calling on little more than experience and informed judgement' that necessarily informed TAC's reviews of established centres and its considerations of priorities for, and potential sponsors of, new initiatives.[142]

In terms of Crawford's interest in broader socio-economic issues, it was perhaps the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), founded near Hyderabad, India, in 1972 – the first inaugurated under TAC guidance – that promised the fullest expression of his aspirations. ICRISAT's initial domain was rain-fed crops such as millet and sorghum, with a primary emphasis on crop improvement and attention to over-arching concepts such as watershed management. Economists were central to ICRISAT's design and work, the concept of the 'farm unit' fusing plant science with micro-economic attention to the choices of smaller-scale, mixed-cropping farmers in areas with relatively poor resource bases and limited access to technology. Surveys of farmers' understanding of risk, opportunity, conservation, as well as kinship and land tenure systems, were integrated – not always easily conceptually or in terms of research teams – with studies of seeds, soils, irrigation and nutrition. In an impressive campus of offices, laboratories, family residences and amenities discretely fenced on Telangana's plains, ICRISAT brought work to local communities as well as relative comfort to transplanted international experts. Encouraged by TAC to remember its 'global responsibilities', ICRISAT carefully managed tensions in

142 J Crawford, 'The Future of the International System: A view from the inside' in Arndt (ed), *Resource Allocation*: 590.

the inclusion and remuneration of the Indian scientists on staff. Yet while taking on crops such as chickpea, pigeon pea and cowpea to serve Asia and Africa, its managers subtly resisted expectations that its operations might eventually move to sub-Sahelian Africa – even as donors grew to include Nigeria and Saudi Arabia. In these ways, the Centre was a microcosm of issues central to applied international research as they evolved through the 1970s. And there were also the choices its research enabled among the farmers, as markets opened up for them and local communities found their tastes adapting to new grains. Millet, which had been a major cereal crop throughout India was a central focus for ICRISAT, but a significant fall in areas under production of the crop came as farmers were attracted to higher yields being generated for rice and wheat and greater consumer demand for these commodities. The parameters of research were far from static.

The International Board for Plant Genetic Resources (IBPGR: now the Global Crop Diversity Trust), also established under Crawford's watch, revealed other tensions. Established at the urging of Sir Otto Frankel – a good friend of Crawford's in Canberra, as head of CSIRO's division of plant industry – IBPGR was to initiate the collection and preservation of agricultural germplasm. The need arose from a problem of success: the spread of high yielding varieties was replacing the profusion of traditional varieties of wheat, maize and other plants with a relatively small number of new forms on a narrow genetic base. With reduced diversity, these crops were particularly exposed to pests and diseases and showed poor outcomes in variable soils and climates. While some in the CGIAR, donor and scientific communities doubted conservation as an appropriate task, Crawford insisted 'TAC's terms of reference were comprehensive enough to embrace plant genetic resources'. And while the FAO claimed the initiative was properly theirs, Crawford was concerned that the venture would become 'submerged' in that agency's 'massive administration'. With his TAC deputy, Swaminathan, he worked to secure a level of independence for the Board. Established in 1974, it took some decades before IBPGR was achieved security with a mandate to fund and supervise a global network of plant genetic resources.

Crawford at IRDC: Eric Craswell (right) and Don McCune, managing director (bankground)

Other initiatives had particular personal investment for Crawford. One was the International Fertiliser Development Centre (IFDC) based at Muscle Shoals, Alabama. The Centre's origins reached back to the Tennessee Valley Authority and the remediation of the dust bowl of the United States' South which Crawford had observed in the late 1930s. The energy crisis of the 1970s added pressure and opportunity to the need for alternative sources of fertiliser, given the dependence of its ammonia and urea-based forms on petroleum by-products. Henry Kissinger, as US Secretary of State, flagged this priority in an address to the United Nations in 1974: the rising price of fertiliser, 'beyond the reach of many of the poorest nations', was compounding world food shortages.[143] Crawford took the initiative to contact State officials, who in turn raised with him the option of possible 'absorption' of their own objectives into a CGIAR centre. Yet he was concerned that the IFDC, as established later in 1974, was based in a 'developed' country and had clear commercial dimensions to its programs. Appointed one of the IDFC

143 *New York Times*, 16 April 1974: 12

directors in 1977, he remained sensitive to any perceived capacity the Centre had to 'blackmail' the CGIAR given the cards it held in its hand.[144]

Geopolitics was clearly never far from these calculations. ICARDA, the International Centre for Agricultural Research in Dry Areas, had been on TAC's agenda for some time before it was established at Aleppo, Syria in 1976. The Centre had a difficult birth due to conflict over whether it or CIMMYT should be for barley and durum wheat. Crawford had hoped that the debate 'would not concentrate too much on possible rivalries on the allocation of roles', and sought to negotiate an arrangement for three independent stations based in Lebanon, Iran and Syria, partly as an inducement to Iran to become a CGIAR donor.[145] In March 1975, and whilst Crawford was still Chair of TAC, civil disturbances began in Lebanon and grew into a full scale civil war; the Bekaa Valley, the intended site of ICARDA's headquarters became a battle ground.[146] This would not be the last time Crawford's efforts, or CGIAR initiatives, were drawn into the political conflict of the 1970s.

Taking such issues as to be expected, Crawford took great satisfaction in his chairmanship of TAC. On his retirement in 1975 another eminent member of CGIAR cohort, Maurice Strong, noted that Crawford's leadership during the early, formative years of the CGIAR 'established the foundations and set the direction for the remarkable contribution it has made to the world community'. Strong added that 'his name is not a household word, though few people in any age have done more to relieve the suffering and improve the lives of millions of people'.[147] Strong would be associated with an emerging emphasis on sustainable agriculture, but the challenges of 1975 were more immediate: TAC was facing the first significant financial deficit in the CGIAR system. This was part of the pressure to secure new donors, if paradoxically among those nations in the Middle East -

144 Crawford, minutes of Sixteenth IDFC Directors meeting, 2 October 1978: 3, CP 248

145 Baum, *Partners Against Hunger*: 90.

146 Baum, *Partners Against Hunger*: 91.

147 M Strong, *The CGIAR at Twenty Five: Looking Back and Looking Forward* (Washington: CGIAR, 1996) 3-4

Iran, Kuwait, Saudi Arabia – who were driving up the costs of much development though oil price increases, had accordingly money to spend, but brought their own agendas for modernisation.[148] Lloyd Evans – a CSIRO plant scientist who followed Crawford into several areas of international engagement, including later serving on TAC – recorded from personal observation that it 'it is hardly surprising that [Crawford] regarded this innovative and attractive experiment in informal international collaboration on behalf of the poor peoples of the world as one of his greatest achievements.' However, Evans added, Crawford's performance also reflected a mix between his personality and the time:

> It revealed his many facets; thoroughly weighing the merits of each proposal but occasionally overlooking significant questions; readily engaged by theory yet always insistent on practical solutions; convinced of the international centre model yet continually seeking alternatives; frequently sure of the way ahead but sometimes unable to discern a solution; often convincing TAC and sometimes convinced by it; mostly, but not always persuading the donors.[149]

It is worth recording a more immediate observation of Crawford's practices from Evans' diaries. He recorded with admiration the ways in which Crawford in meetings 'formulated conclusions and controlled the members with a mixture of humour, wisdom and open-mindedness'. The difference between these accounts might be explained by the ways in which Evans would quickly become jaded by his own experience of such overly bureaucratic processes.[150]

148 Lejeune to Crawford, 24 April 1975, CP, Box 142; P Sharma. *Robert McNamara's Other War: The World Bank and International Development* (Philadelphia: University of Pennsylvania Press, 2017) 79.

149 L Evans, 'A Malthusian Optimist works on the International Food Problem' in *Policy and Practice*: 189.

150 R King, 'Lloyd Evans', *Biographical Memoirs of Fellows of the Royal Society*, no. 62, 2016: 141.

Crawford left his role satisfied that he had done his best – later he would recall TAC 'as possibly the greatest single contribution I have made … I would rank it with India'.[151] But he also recognised that significant questions went unattended, with temporary solutions sometimes failing to address fundamental questions of competing priorities and overlapping mandates. His individual contribution can hardly be abstracted from the competing terms and criteria in which the wider CGIAR program has been assessed, and that of the green revolution more generally. As the final speaker in an international conference that offered a comprehensive assessment of all that had been achieved in agricultural research since the 1950s, Crawford conceded 'none of us is smug' about that record, and judgements 'will have to be made' about what had worked. It was perhaps as much a tribute to what he had achieved at TAC as a reflection on the transition he marked, that in seeking his successor the arguments were variously made that the next chair must come from a developing country, must be a scientist, and must be prepared to commit at least four to five months full-time each year to the committee's work. Equally, there was a concern that the next chair might be cast more in an activist mode than the deliberative role that had been so crucial in all that Crawford had achieved. An improvised process was hastily designed to balance these concerns – informality, again, being central to resolution in these still-evolving structures.[152] Not one of Crawford's own preferred ranking of candidates – he placed Hopper at the top – was appointed.[153]

Iran: 'sit tight'

Many aspects of Crawford's distinctive role within World Bank operations were evident in one of his most frustrating assignments. In 1970 the Bank undertook a survey of Iranian agriculture, noting the crucial issue of providing a water supply to farmers who were facing a range of 'bottlenecks and constraints'. This was not the first time Iran had been a focus for post-war developmentalism. In 1953 the Ford Foundation launched a program for Iranian modernisation centred on land reform, education and rural credit that challenged the fragile support base of the

151 Crawford, Miscellany of Points': 30.

152 Baum, *Partners Against Hunger*:106.

153 Crawford to Baum, 9 October 1974, CP, Box 144

West's preferred government – a point highlighted as a US and UK supported coup d'etat was in train just as Ford officials arrived. By 1958 that program had collapsed, losing out to greater outside investment in stabilising Muhammad Reza Shah Palahvi's regime.[154] Twelve years on, Iran was rich from petrodollars, and for McNamara it was a nation to be courted in the shifting geo-economics and politics of the time. The Shah envisaged a reform process that might replicate the reconstruction of Japan. But the gap between the rural poor and city dwellers was still dramatically wide, and there was no equivalent of an occupation force to drive the process of reform. For the Bank and CGIAR, the prospect of tapping into the closed world of Iranian wealth to sponsor research on agriculture for non-tropical drylands – as noted in the discussion of ICARDA above – was one attraction. So was the possibility of gaining representation in the Middle East, in a county on the path to westernisation and of vital strategic importance.[155]

Whatever the wealth from oil, Iranian farming was characterized by low productivity on high, exposed plateaus. Through the 1960s a series of land reforms had sought to consolidate political support for the Shah by undermining the power of large landowners and increasing peasant proprietorship. The 'White Revolution' running into the 1970s promised to bring greater stability to the country. Yet the emerging rural structures – including corporations and cooperatives – were extending central control rather than recognizing the autonomy of farmers and rewarding their productivity.[156] These factors made Iran another important laboratory for intervention. Iranian officials were keen for some guidance as they moved to refine their Fifth Development Plan which, after several less than successful precursors, emphasised distributional issues, particularly the objective of improving rural living standards.

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154 V Nemchenok, '"That So Fair a Thing Should Be So Frail": The Ford Foundation and the Failure of Rural Development in Iran', *Middle East Journal*, vol. 63, no. 2, 2009: 261-284.

155 Baum, *Partners Against Hunger*: 89.

156 Al Ajami, 'From Peasant to Farmer: A Study of Agrarian Transformation in an Iranian Village', *International Journal of Middle Eastern Studies*, vol. 37, no.3, 2005: 327–349; AKS Lambton, review of EJ Hooglund, *Land and Revolution 1960-1980, Iranian Studies* , Vol. 17, No. 1, 1984:73-84

Crawford in Iran: the public relations side of his role

Early in 1972 Mansour Rouhani, Iran's Minister for Agriculture, wrote directly to Crawford, who had recently visited Tehran, in the midst not only of World Bank's business but also the Australian government's interest in building and balancing a trade and potential investment relationship. Rouhani outlined his government's desire for expert advice, on a consultancy basis, on improving livestock, and specifically meat, production, and prospectively on practices of dry-land farming.[157] Crawford replied expressing great personal interest in what he elevated to the prospect of establishing 'a national policy and operating plan for the agricultural and livestock sector of your country'. He noted that he personally could do little until he retired as vice-chancellor later in the year. Instead, he invited Rouhani to consider Crawford's own preference of 'undertaking such work within the framework of the World Bank', for which he ('as I believe you know') acted as a

157 Rouhani to Crawford, 23 January 1972, CP, Box 273

'senior consultant' and through which he could probably 'marshal better resources'. Crawford added that he had already 'in personal conversations' established that the Bank was 'more than agreeable' to such collaboration.[158] In the loops of such exchanges, it seems likely that a more direct transaction was under way, as Iran managed the terms of its engagement with international assistance while protecting the setting of its planning processes and priorities.

More dealing followed through the middle months of 1972. The Bank sent a scoping mission to Iran to ascertain how far the government might be prepared to let an inquiry go in opening up issues for scrutiny. A delegation went to Canberra to confer with Crawford on those terms.[159] It was clear that, in addition to deep-seated economic issues, there were 'ministerial rivalries and even differences of philosophy' in the Iranian government that would not be easy to navigate. In May Crawford advised the Bank that 'if conditions are too atomistic' then it might be better to pull back completely and 'allow the situation to develop' in whatever ways and timing Iran could manage. Yet Bank reporting judged that the 'extremely rapid economic growth rate of Iran over the past decade has made the problem of rural development more important and, in some ways, more difficult than in other countries'. From this perspective, analytically and politically, Iran was a valuable case study. The allure of the cities, it was judged, created 'income aspirations that cannot be met within a traditional peasant agriculture'. There was a 'time constraint on the alleviation of rural poverty that precludes conventional, long-term programs of rural development through improved peasant farming, expanded extensions services, small-scale self-help programs, etc.' Iran had much to offer, yet unlike India it had money to spend.

Whatever its claims as a case study, Iran also presented a chronic lack of coordination, expertise and political capacity to address these inherently unstable relationships. In September, seeking a middle course, McNamara wrote to the Shah advising him that since he had to satisfy himself that 'an intensification of the Bank's assistance to Iranian agriculture should be under the leadership of the

158 Crawford to Rouhani, 16 March 1972, CP, Box 273

159 H Adler to Crawford, 16 May 1972, CP, Box 273

highest calibre', he was assigning to 'Sir John Crawford, presently Vice Chancellor of the Australian National University in Canberra', the task of 'directing and guiding any effort the Bank might make to increase its assistance to Iran's agriculture sector.' Crawford's 'key role in developing Bank supported agricultural programs as for example in India' testified to his expertise for the job.[160]

This was a highly personalised role and, as usual, Crawford did his homework before undertaking it. He also reached out to those who might assist him in the task: Jim McWilliam, then transitioning from work with the CSIRO to become professor of agronomy at the University of New England was contracted directly by Crawford and became another 'drawn into his net'. McWilliam recalls travelling with Crawford to Iran: 'there was money everywhere'. Data assembled indicated there had been no genuine diversification of grain production in Iran, while development of livestock had progressed only slowly. As Crawford noted, the 'failure to expand rapidly the economic base' of the farmlands had compounded the 'few benefits from improved production or restructured employment'. More than 80 per cent of Iran's farmers possessed fewer than ten hectares of land, and 70 per cent had fewer than 5 hectares, of which very little was irrigated. Most farmers earned well below $100 per year per person, again in sharp contrast to the wealth of the cities. So prepared, once in Iran Crawford began his meetings insisting that any solution must integrate economic and welfare needs. At first he recorded that he was well-received by senior officials, including by 'his Majesty' who – in a rather typical gloss on the early stages of his assignments – Crawford judged as showing 'a considerable, and as I expected, highly intelligent understanding of, and interest in, the proposals' he advanced. There were, however, tensions evident from the start.

The Shah emphasized that 'the Bank had not adequately understood that Iran was trying to "modernise" the agriculture sector'. But his government was seeking to achieve that goal through the imposition of collective structures that seemed

160 McNamara to MRS Pahlavi, 12 July 1972; McNamara to K Farmanfarmaian, 17 July 1972, CP, Box 273

likely in Crawford's view to compound dislocation.[161] Impressed by Rouhani's 'strength of character', Crawford was apprehensive that his focus on issues of production overshadowed the reforms that needed to be pushed through in areas such as rural credit. But that was an area provision that fell to another, less well-resourced portfolio – and Crawford quickly appreciated the role of internal rivalries and contesting personalities. Moving out to inspect what was underway in an extensive two-week itinerary covering diverse regions and practices (he declined a night at the Shah's hunting lodge), Crawford was impressed by some aspects of 'agri-business (including state farms) and farm corporations'. But he noted that 'since these large scale farms will almost certainly, in net, use less labour per hectare directly on the farms than would equal areas of small scale private farming, it is important to develop new employment opportunities to absorb [those] displaced by operations and to give increased opportunities to landless labour'.[162] Such provision seemed much less in evidence.

Crawford kept a close eye on the 'terms in which the Bank would 'work with' (he struck out 'help') the Iranian government. The Bank established a task force deployed to Iran, staffed by at least four specialised Bank officers, supported by a full-time secretariat, and assisted by range of shorter-term appointments. The taskforce was to be directed by Crawford who (it was anticipated) might spend up to three months each year in Tehran. As these preparations got under way, he worked at his often close if circumspect relations with ministers and senior bureaucrats, sketching alternative models, ranging from soil conservation through to the regulation of interest rates to assist investment. Greater emphasis needed to be given to a program of rural consolidation built around core villages in local zones, with 10 to 15 satellite villages providing a focus for rural migration that would in turn form a base for vocational training, secondary and tertiary activities and employment for displaced families, unpaid family members and landless labourers.

161 Crawford, memo to McNamara, 30 October 1972, CP, Box 273

162 Crawford, Notes for Talks with Ministers, n.d., CP Box 273

'Crawford in Iran: intense negotiation

Assured water supply was the scarcest factor of production in rural Iran, and – as in India – Crawford set aside reservations regarding the extraction of groundwater to argue that, in the short-term at least, this resource could be more intensively exploited (snowfall, he noted, recharged it every year). But 'other factors were equally vital to promote the maximum output per unit of water available', and 'farming by edict' might not be best placed to provide these responses. He regarded it as one of his major achievements to have gained acceptance of the point 'that Iran's rural salvation, even in production terms, rests principally with the commercial sector, at small scales.[163] Services such as 'clear pricing and marketing policies, adequate credit, the benefits through extension of research advances, and assured input supplies' had a greater role to play in this process. The subsidies provided to encourage corporations were doing little to offer incentives to farmers, and even less to achieve 'the marriage of economic necessities and social objectives'.

163 Crawford, 'Impact in Iran of IBRD Task Force', 16 June 1976, p. 3, Box 272

The glossy photograph albums presented to him by Iranian information services recording his tours indicated the reception Crawford received (frequently with Rouhani as his guide) and perhaps the purposes his mission served in visiting schools, factories, laboratories, power plants, roadworks, dams and canals as well as farms. As Australia ventured further into its own more independent engagement with the Middle East, Crawford became an enthusiastic public supporter of 'an actual and complementary relationship' with Iran projected as spanning from dry-land agricultural research to solar energy.[164] Along with McWilliam, colleagues at the ANU, such as Ric Shand and Fred Fisk, advised on services that might be offered by the task force and Australian-based consultants; Iranian mid-career officials were among the cohort enrolling in an ANU Master of Agricultural Development Economics, introduced in 1972. Iran clearly galvanised Crawford's interests – often he would link it to his engagement with India. And much settled on his own particular role in guiding a complex project. While senior Bank officers in Washington had earlier questioned whether some of the no-go areas explicitly or implicitly imposed by the Iranian government 'may seriously restrict the usefulness of the taskforce', Crawford welcomed their counsel to '"sit tight" until various conflicting interests have sorted themselves out'.[165]

By late 1973 a review managed tightly by Tehran conceded slow progress with many reforms, now compounded by high world food prices and domestic inflation. Iranian officials were also keen to steer the taskforce to policy *advice* rather than project *implementation* roles – but that limit caused restlessness among Bank staff who wanted results. Still, in July 1974 the Bank welcomed Crawford's report of a 'successful recent mission' and that the Iranian government had expressed 'readiness … to request an extension' of the task force's services.[166]

164 *Canberra Times*, 31 May 1974: 2.

165 L Evans to Crawford, 21 July 1972; D Klaus, memo to Crawford, 16 June 1974, CP Box 273

166 MP Benjenk to Crawford, 10 July 1974, Consultative Group on International Agricultural Research [CGIAR] - F-1 Technical Advisory Committee [TAC] - 1972 / 1974 Correspondence Volume 3 at: https://thedocs.worldbank.org/en/doc/618771620201383096-0240021974/original/WorldBankGroupArchivesFolder1759683.pdf

Crawford in Iran: the finer detail

Crawford counselled Owen Price, a Welsh-born agricultural economist working in the Bank's Tehran office, [to] 'not show too much intransigence on sensitive points' in his dealings with local officials and politicians: it took tact to maintain relationships through political instability, ministerial reshuffles, and the need to make the best use possible of the skills available in the Iran bureaucracy. But Price advised in reply that it was difficult to escape the popular perception, and reality, of creeping corruption in those ranks.[167] And it was clear that there were more substantial obstacles at the top, not least in honouring financial commitments. The Shah, Crawford later reflected, kept ministers and officials in 'daily fear': in retrospect he was an 'opinionated, conceited, [and] ambitious man' who took little advice. In 1975, when the Bank – frustrated with progress – moved the operations of the task force to a cost reimbursement basis, the Iranian government effectively gained executive control over its functions.[168]

167 Crawford to Price, 26 April 1972; Price to Crawford, 7 September 1975; Price to Crawford, 21 April 1976, CP Box 273

168 T Husain, memo to Crawford, 8 June 1976, CP Box 272

With little notice but what Crawford conceded to be an element of 'inevitability', in 1976 the Iranian government closed the task force down.[169] This process of attrition touched on other aspects of Crawford's investment in this exercise, as the Bank officers, and their families, sent to staff the task force and enduring no easy time in the process, now had little notice in seeking relocation in the Bank's own extensive and rather soulless bureaucracy. Peter Naylor was one of those men, if one who openly, candidly lamented the limitations of the Bank's achievements, and Crawford lobbied to ensure Naylor's work was appropriately recognised in Washington.[170] Crawford was loyal to those who earned his trust, and – like Naylor – they in turn returned support in future collaboration. Crawford also sought to maintain personal contacts in Iran, assuring the Bank that he 'knew already that I will be welcomed by Rouhani' should there be a capacity for him to act as an 'intermediary' given there was still important work to be done.[171]

But it was a hard slog, with the Bank increasingly distancing itself from support beyond 'interest'. Crawford accepted that 'if I do anything in Iran I will be on my own'.[172] His contacts continued sporadically until the Iranian Revolution in 1979. As Crawford reflected 'with the collapse of the Shah's regime, complete disintegration occurred'. He tried to find out what had happened to people with whom he had worked, often in very friendly terms. He later recorded that 'unfortunately, Rouhani was brutally treated on the Ayatollah's orders'. The Minister had been arrested in a broad purge and charged as an agent of 'corruption on earth; treason, destroying agriculture and forests', in particular for allegedly authorising the destruction of some 40 villages in the south-west province of Khuzesta.[173] Rouhani was executed after trial, although Crawford believed he was 'summarily shot'. In candid remarks, Crawford lamented that his work in

169 Crawford cable to W Wapenhans, 7 July 1976 CP Box 273

170 Crawford cable to M Piajmans, 17 August 1976, CP Box 272; Naylor cable to Crawford, 13 July 1976, CP Box 273

171 Crawford, cable to M Piajmans, 4 October 1976; G Lusignan, Note for file 'Meeting with Sir John Crawford', 20 September 1976, CP Box 273

172 Crawford to S Aiyer, 17 December 1976, CP Box 272

173 See https://www.iranrights.org/memorial/story/-3776/mansur-rohani

Iran had come to nothing – despite all his courting. In public, he retained some highly selective optimism, reflecting that 'one can only hope that Iran will settle down some time for it still has the potential in its rural sector not readily available to many Middle East countries'.[174]

In the contrast between the institution-building and performance assessment of TAC and the vicissitudes of attempting to support reform in Iran, there are those familiar elements of Crawford's personality and contribution. His persistence and confidence in both areas is remarkable, as is the authority he carried and with which he advanced his principles. A mastery of networks and in drawing together talented people earned deep gratitude. And so was a basic doggedness: Swaminathan recalls one meeting of TAC at FAO headquarters in Rome which Crawford suspended until microphones secreted in the room, conveying proceedings to FAO staff, were removed.[175] His busyness is astounding, not least because in these years he was still dealing with heavy responsibilities at the ANU and familial trauma. But it is perhaps that immersion in work that is most striking, reflecting the tension within him between the builder of teams and the vanguard sometimes moving, as Lloyd Evans noted, just a little ahead of personal capacity. As always in Crawford's life, the multiple concurrent lanes of his commitments reflect his extraordinary energy as it intersected with the changing agendas of the time and a personal need for affirmation.

174 Crawford to C Santamaria, 5 January 1983, Box 273

175 MS 'Swaminathan, interview with the authors, Chennai, 21 January 2021.

Chapter Four

Full Flowering: India, Indonesia, IDRC and IFPRI

Special relationships

From 1973 to 1981 Crawford's already intensive schedule of international travel and consultation included renewed and more frequent visits to India on behalf of the World Bank. There came also equally close, growing relations with Indonesia. Now carrying the status of 'special adviser on agriculture' to Robert McNamara, the Bank's president, his remit was to navigate the revised 'posture' the Bank sought with the Indian government, and to build new links with Indonesia. These two states offered distinct and differing perspectives on the challenges and priorities of development policy at that time. Colleagues noted the beginning of Crawford's 'third career' as he moved into these roles toward the end of his term as vice-chancellor at the ANU.[176] With more apparent independence from institutional leadership roles, he was valued by the Bank for 'standing away' from its 'day-to-day activities' and offering instead a more personalised overview, guidance and synthesis in these direct negotiations with sometimes tricky but important governments. This was a delicate act. In it, Crawford again was the 'honest broker'.

Another clear expression of his priorities came with Crawford's association with two new agencies, both established to address changes and tensions in development agendas. Even as his commitments to India and Indonesia were sustained, he had been appointed to Canada's International Development Research Centre (IDRC) at its establishment in 1970. An innovative venture integrating science and society

176 L Rasminsky to Crawford 21 November 1977, CP Box 175; Crawford referred to his role was 'senior agricultural policy adviser': Crawford to Hopper, 17 November 1975, CP Box 406

in research and capacity building, the IDRC would provide a model for several of Crawford's initiatives through the 1970s. From 1972, serving on its executive committee, he navigated issues of coordination, specialisation and – on matters such as environmental impact – contestation that came with those agendas. More particularly, as foundational chair of the International Food Policy Research Institute (IFPRI) from 1975, he worked to tighten the links between agricultural research and economic guidance that had always been fundamental to his work and advocacy. Here, too, his personal influence, not least in relation to the internal politics of institution building, was marked. He was drawn into issues of equity and sustainability in global resource allocation that added further complexity, and political sensitivity, to the programs of international institutions. 'Buying time' became a strategy under increasing scrutiny in these circumstances. The IDRC and IFPRI experiences fed into his thinking about an expanded role for himself and perhaps for Australia in international agricultural research for development. This thinking would be reflected in the formation of Australian Centre for International Agricultural Research (ACIAR), to be discussed in Chapter Five.

Crawford's return to India reflected not only a transition in his own working life, but also wider recalibrations in international assistance. A major recipient of World Bank lending, India remained a litmus test for its and many other agencies' successes. The optimism of the 1960s 'development decade' was ebbing, and in India there had been a marked slip in relationships and outcomes since the reforms advocated in the Bell Report of 1965. The priority flagged there of building research capacity and structures directed at the wide range national agro-ecological characteristics had not been adequately followed up. A period of stagnation (as Crawford conceded) shadowed the initial impact of green revolution investment, and by 1972-73 the challenge of embedding those reforms in national policy and wider government systems was compounded by a deepening global food crisis, with drought and poor harvests, higher prices, the economic shock of soaring energy costs and spreading famine. The Bank worried over a waning common understanding of policy goals with its Indian counterparts. It sought greater accountability in project delivery. Yet it needed to navigate President Indira Gandhi's public stance of safeguarding India's independence from foreign direction. This was not a process that lent itself to formalised missions.

Friends in the Bank – typically, close connections reaching back to the mid-1960s – kept Crawford informed about the 'spirited debate at all levels' over what should be the Bank's goals in India, and how hard it should push for results. He was assured that 'there is general agreement about the crucial importance of capitalising fully on the special relationship' he personally 'enjoyed' with key figures in India (he would confess his choice of hotels in New Delhi was in part determined by the need to protect his privacy). He was judged adroit in drawing together a 'cell' of influential Bank and other advisers who could work tactfully and tactically with the Indian government.[177] From McNamara down, Crawford was told, there was broad agreement that he was the most appropriate 'main architect' for the 'new relationship' needing to be struck.[178] If the Indian government was reluctant for the Bank to be too 'visible' in reviewing its agricultural policy, the Bank was concerned to avoid any inefficiency in its operations. Crawford in turn sought a informal role, in part to preserve his independence.[179] Delicate persuasion and assessment was required. Crawford responded eagerly to the opportunity. In April 1973 he advised Ian Cargill, the Bank's vice-president for Asia, that he had 'talked privately' to Balaram Sivaraman, the secretary of India's Department of Agriculture during the Bell mission, about 'the most useful role I might play' in assisting the Indian government 'prepare its program of projects' for the Bank's consideration. Crawford noted that Sivaraman 'agreed readily (I might say enthusiastically)' to this suggestion.[180]

As this association with India deepened, Indonesia also came more centrally into Crawford's rounds. The nation had long interested him: Indonesia had been one of the priorities for the expertise he had built at the ANU and in the networks with government and international agencies he had cultivated (Chapter Three has noted the centrality of Indonesia to the AAUCS). Like India, Indonesia was seen as a laboratory for 'free Asia': both nations were poised for the development

177 A Neylan to Crawford, 30 August 1973, CP Box 406; W Wapenhans, interviewed by JLewis, 6 September 1991, World Bank Oral History Project: 6.

178 R Picciotto to Crawford, 19 July 1974, CP Box 406

179 Neylan to Crawford, 30 August 1973, CP Box 406

180 Crawford to Cargill, 12 April 1973, CP Box 406

initiatives of the late 1960s. But there were significant differences between them. Democratic if poor, India was perhaps more congenial to Crawford's temperament than the more autocratic and resource-rich Indonesia. The former was Anglophone, and even in independence it retained at least a residual sense of deference to the Commonwealth expert, or an expectation on the part of experts from the Commonwealth that they would be so received. Indonesia was, however, very conscious of its revolutionary start as a nation, and its place in post-colonial and Cold War politics.[181] On assuming presidency of the World Bank, McNamara was determined to improve relations with Indonesia as the 'greatest prize of all' in Southeast Asia. Never having previously received Bank support, Indonesia was to be drawn into the substantial expansion of lending McNamara pursued, along with the Bank's increasing involvement in policy advice. In 1969 Bernard Bell, who had led the Bank's mission to India in 1964-65, was appointed head of a new 'resident mission' in Jakarta.[182] He oversaw the provision of large-scale technical and financial assistance, building an unusually large deployment of staff in an effort to engage with an already complex Indonesian bureaucracy. This was a rather different network into which Crawford would step: another matrix of policy formulation, emblematic of the times, and another dimension of green revolution impacts.

Your low key and rather informal approach: India II

In December 1973 Crawford together with a select group of senior Bank staff met in Washington with the Indian Finance Minister, Chidambaram Subramaniam, in a series of intense, direct discussions. The Indian government was then finalising its fifth five year plan, with an emphasis on poverty alleviation that owed perhaps more to the populist slogan ('remove poverty') that had brought Gandhi a huge majority in the 1971 elections than to tangible outcomes. India was deep into

181 T Lankester, '"Asian drama"': the pursuit of modernization in India and Indonesia', *Asian Affairs*, vol 35, no. 3, 2004: 294

182 P Sharma, *Robert McNamara's Other War: The World Bank and International Development* (Philadelphia: University of Pennsylvania Press, 2017) 39-40.

the second year of a failed monsoon; social unrest was spurred by insecurity and inflation. As Agriculture Minister in 1964-66 and a trusted member of Gandhi's inner circle, Subramaniam had ridden through much discontent in taking forward many of the Bell report's recommendations within the terms of India's New Agricultural Development Strategy. In 1973 the Bank was driving even harder at the need for national coordination.[183] From talks with Subramaniam Crawford flew to consult directly with Mrs Gandhi in New Delhi, carrying McNamara's personal imprimatur.

Crawford in Haryana 1980

This was the beginning of what David Hopper characterised as a regular 'pilgrimage' to India. The result was 'the full flowering' of Crawford's influence. Over the coming years, Hopper summarised:

183 M Abel, 'Agriculture and India in the 1970s', *Economic and Political Weekly*, vol. 5, no. 13, 1970: 5-6.

> large-scale and small-scale irrigation projects were undertaken throughout the country; mammoth fertiliser plants were constructed; extension services were greatly expanded, research centres established; seed farms were opened; seed processing and distribution networks were built; agricultural credit and rural banking institutions were extended to rural towns across the countryside; grain storage and enhanced food transport facilities were built by the Food Corporation of India. In short, the whole panoply of service and support systems necessary to achieve the promise of the Crawford strategy was created or enhanced by successive national administrations.[184]

'Quietly but with iron gentleness', Hopper added, Crawford galvanised the international donor community as well as the Indian bureaucracy. He insisted that institutional advances were accompanied by 'assurances given to farmers' that they would benefit from these processes. He worked to moderate the 'long discernible trend of xenophobia' he and Hopper confided to each other that seemed to cloud their recent dealings in India.[185] Hopper's glowing account of Crawford's success certainly contrasted with his concurrent frustrations in Iran, discussed in Chapter Three.

Crawford's role in advising on a program that might attract Bank funding had to extend well beyond desk-top review. Bank officials in both Washington and New Delhi welcomed 'concrete evidence of your continued interest in India' but were also busied in preparing for him itineraries ranging from 'access to top-level policy makers' to tours of states and regions that would fill out the three months a year Crawford wished to devote to India. He wanted to assemble a tight 'working group' within the Bank that would operate 'as a continuous process, undertaken jointly with the Government of India, and yielding periodic reports, position papers and special studies on topics of mutual interest'. In meetings with Indian senior officials, both in Washington, New Delhi, and other centres, Crawford emphasised his 'natural wish to establish visual and oral contact with the farming situation'. Those organising his schedules were told that time was not to be 'wasted' in 'rushed visits'

184 Hopper, 'Indian Interlude' in *Policy and Practice*: 170

185 Hopper to Crawford, 27 November 1970, CP Box 177

or diversions. Indian officials at all levels were reminded that 'Sir John lays great stress on some quiet visits to villages were he can talk to farmers', preferably without a 'large formal escort'.[186] A keen collector as well as taker of photographs, Crawford's albums after 1973 include many images of him in such informal settings, in an open-necked, short-sleeved shirt, pocket bulging with pens and a glasses case, in earnest conversation, attentive to wells, canals, crops and their cultivators.

He seems to have got most of what he wanted on these crowded tours, even if some protocols were tested. Jochen Kraske, the chief of the Bank's India Division at its New Delhi resident mission, recalled one meeting at which Crawford had emphasised the need for action in an exchange with Jagjivan Ram, the then Minister for Agriculture. The surly Ram was a Harijan leader, who in the 1930s and 1940s had been a forceful activist for rural labour, the 'depressed classes', and was twice imprisoned for his association with the independence movement. As Minister for Agriculture, with some rivalry emerging with Gandhi, Ram sat silently through what seemed Crawford's 'gentle suggestions' on matters within his portfolio.[187] The next day, Kraske recalled, newspaper coverage 'lambasting the World Bank for its attempts to impose its views' effectively 'let us know what he thought'.[188] Kraske's account of the minister sitting 'behind his desk, scratching his belly' during Crawford's visit (Ram was 'one of those guys who would always be clad in his *dhoti*': a 'real politician') offers a glimpse into the kind of thresholds Crawford was testing in such exchanges.

But if Crawford seemed insistent to Ram, his overall approach was framed in mediating and evaluative terms, including in the reports he addressed directly to McNamara. Often he saw himself as preparing the ground – building connections, crafting talking points – for visits the World Bank President would soon make and the conversations he would have at the highest levels, sometimes with Crawford beside him. At the end of a long tour in 1974, Crawford advised McNamara:

186 P Naylor to B Sivaraman, 11 October 1974, CP Box 406.

187 K Frank, *Indira: The Life of Indira Nehru Gandhi* (Boston, Houghton Mifflin, 2002) 382

188 J Kraske, interviewed by C Ziegler, 3 March 2006, World Bank Oral History Project: 32

> The situation in India is grim, but not one for despair. If some difficulties are still underestimated in official circles, there are many fewer examples than there were. As on the occasion of the 1966-67 droughts, the Malthusian spectre is a powerful spur to realism both at political and official levels. I found this especially so in the densely populated States where the threat of social unrest is perhaps greatest. Despite the negative spur, I found a welcome positiveness in approach and, not least remarkable, a willingness to admit difficulties and to discuss them frankly. I believe the Bank has an opportunity now to play a constructive role with a welcome far less grudging than has sometimes been the case.[189]

Crawford's personal investment in this account is striking – of experience, expertise, judgement and conviction. When Crawford accompanied McNamara on a tour of India and to several meetings with ministers in early 1975, he heard that message stated more directly. After Crawford in one exchange relayed to Subramaniam the 'shortcomings' he and the president had noted, McNamara more directly concluded that he was 'appalled' by the poor facilities they had seen, and by the evident 'drain of Indian experts away from Indian research institutions' that promised only to further limit prospects for reform. The Government of India seemed 'excessively complacent about the future', McNamara said: 'he was accordingly not reassured … about the Bank Group's role in India'.[190] Such a message enhanced Crawford's influence as his 'special adviser' – it certainly reflected his own commitment to strengthening links between Indian research capacity and its local applications.

India's problems were familiar enough. A 1970 summary in India's *Economic and Political Weekly* noted that while the 'green revolution' had boosted wheat production, the same could not be said of all other foodgrains, for which a more assured annual supply of HYV seed was required. Soil and water management in

189 Crawford, Short Report on Mission to India, 17 December 1974, CP Box 406

190 Minutes of meeting, 21 January 1975, "Contacts with member countries: India - Correspondence 07 Folder 10: 1771079 I SAD(G) Reference Code: WB IBRD/IDA 03 EXC-1 0-4549S, World Bank Archives

less fertile areas lacked attention, and so did the related issue of eliminating 'the institutional biases against the small cultivator'. Such accounts concurred that the problem was not 'technical knowledge'; it was the 'scant evidence of either an applied research or political commitment to address these problems.[191] Here was the patch for Crawford's work.

Through these years he worked with Indian interlocutors to encourage them to sharpen their priorities, and with the Bank to ensure investment goals were clear – as Crawford listed them: improving seed quality; optimising surface and ground-water resources; strengthening the 'impact of research at farm level'; and expediting credit availability to 'over-come problems of fragmentation of holdings'. He tasked Bank staff with focusing his itineraries on problem areas, such as the India's rice bowl in Andhra Pradesh, where the impact of green revolution practices was less evident, and to other regions where inequality in living standards and assistance was particularly marked. The 'spectre' of famine might be moderating, but Crawford warned that India could soon need to turn again to the large-scale import of food, which would exacerbate internal political and economic instability. Moreover, the ambiguities of India's geostrategic positioning were evident in concerns at the Bank, and in the United States' government. A nation that had just successfully tested its own atomic bomb was, as David Hopper reflected, still content on 'farming the fields of Kansas and Saskatchewan' in its continuing reliance on food aid, while also resenting that dependency.[192]

Crawford's role in this mix was more specific, but he was well-aware of these wider settings. As his contacts with local and state officials deepened, the usual courtesy of his prompt letters of thanks for meetings and tours also emphasised issues needing their urgent attention. Those letters also reflected the personal trust, empathy and candour established in exchanges among people well aware of the scale of the problem. After visiting Orissa, Bihar, West Bengal and Eastern Uttar Pradesh, Crawford cautioned McNamara that 'I can see no national government

191 M Abel, 'Agriculture in India', *Economic and Political Weekly,* vol. 5, no. 13, 1970: 5-7.

192 D Hopper, interviewed by K Feltault, 2 April 2004, World Bank Oral History Program: 31

surviving if it continues to neglect the now more desperate and politically active poorer peasantry and landless labouring classes'.[193] This was a concern shared with his trusted Indian colleagues, including Swaminathan, who worried at the waning of Congress's rural mission and electoral prospects.

Valuing this advice, in mid-1975 McNamara enquired whether Crawford might be 'relieved of some functions on the TAC program (where his involvement has been described in Chapter Three) to make room for urgent work on India'.[194] Crawford, reluctant to let go of any of his roles, continued to push his brief in India hard. Senior Indian officials were inclined to emphasize that their own priorities were clear; all they needed was an assured supply of funds from the Bank to carry them out. But Crawford took the agenda further. How realistic were production targets? How effectively were short and long-term objectives being assessed? What was the point of isolated models of rural development if they were poorly served by basic infrastructure – roads, for example, and electrification? Assuring McNamara that he carefully avoided using the term 'monitoring' in his exchanges (it would 'grate on sensitive ears'), he emphasised the need for more regular, structured discussions with Indian officials, with an expectation clearly conveyed that they were to supply reliable data. For its part, the Bank needed to invest more in building the expertise required for appraisal missions. It also needed to insist on its pre-eminence in this field against the claims of other agencies, such as the FAO, whose role was best confined to 'project identification and preparation'.[195]

To carry on this work, Crawford insisted he also needed more structured assistance (it is notable that all correspondence on these matters came to his home address, even if, in both Washington and New Delhi tight, trusted teams were developing around him). As we have seen, this is not the first time the difficulties in supporting his multiple roles had emerged. His services were remunerated on the same consultancy basis as his role with TAC: US$300 a day (A$2500 in 2023) exclusive

193 Crawford, 'Short Report on Mission 8-30 November 1974', CP Box 406

194 Picciotto to Crawford, 19 July 1975, CP Box 406

195 Crawford to I Cargill, 25 April 1975, CP Box 406

of travel and other expenses, supplemented by funding for a research assistant and other professional support. These costs did not concern the Bank, but a certain mismatch in his role did. As the Bank's vice-president for finance, Ian Cargill, observed in 1975, Crawford's 'low key and rather informal approach' inevitably demanded 'considerable effort and manpower resources' from the Bank as its responded to his needs. Spanning diplomacy as well as reconnaissance, assessment and advice, his work eluded neat budget lines and areas of authority. That, of course, was part of its value. The deepening of his friendship with Swaminathan, appointed Director-General of the Indian Council of Agricultural Research (ICAR) in 1972 and a Secretary to the Government of India – rare senior civil service appointments for a scientist – was one conduit for such a mix. And so, as Swaminathan has observed, was Crawford's distinct standing as an economist, 'with one foot in science, and one in society', offering a kind of balance and reassurance to politicians both drawn to and wary of large, expensive schemes.[196]

In these new syntheses, Crawford was sometimes cast – and cast himself – as an intermediary. On the basis of first-hand observations, he advised Washington colleagues that they should focus on immediate objectives and specific projects, to avoid the despondency that would arise from documenting a more general lack of achievement. His perspective was also valued in summarising progress to the consortium of government and inter-governmental organisations who had their own concerns in reviewing the allocation and effectiveness of assistance to India. Chaired by the Bank, and commencing with reports from Indian officials, the consortium's meetings were in themselves carefully managed affairs. Preparations for the 1976 meeting, to be held in Paris, nonetheless revealed that persistent ambiguity in Crawford's role. Where in the program should he appear, given that he could be seen as a representative of the Bank, an independent expert, or an adjudicator on the claims made by the Indian government? Hospitalised in Canberra after a gall bladder operation, with what reads even between the brief lines of telegrams to be mounting frustration but also stoic duty, he worked through several redrafts of the long papers sent to him by Bank officials in New Delhi. He was informed, however, that fifteen minutes was all that could be

196 MS Swaminathan, interview with the authors, Chennai, 21 January 2021.

allocated to him to speak to his concerns as an individual, should he be well enough to travel to Paris. He rallied and went, but with serious and grumpy doubt that there was any intention to have a 'serious discussion of agriculture' in the midst of such a tightly orchestrated political event.[197]

Crawford's insistence on the prioritisation as well as the interdependence of issues made for intricate deliberation. To take one example: an examination of agricultural credit provision featured prominently in his first tour in 1973 (the subject, of course, was familiar to him from his own work with the Rural Bank of NSW in the 1930s). Central to more reliable calculations of farmers' credit worthiness was the appropriate professionalization of the banking sector. At the time, India's Agriculture Refinance Corporation relied heavily on the brief rotation of seconded officers from agricultural agencies to undertake this work. Given their background, their assessments showed a tendency to rely on credit provision to regulate groundwater extraction through supporting well construction and pump availability. This, however, was no way to manage access to and sustainable exploitation of a vital resource.[198] In the same itinerary, Crawford was asked about possible Bank support for a program of reclaiming potentially arable areas in eroded ravines to cope with drought and land shortage. This program, he was later told, would have the added advantage of moving on the 'bandits' said to be living on these margins. Vested interests, custom, hierarchy, bureaucratic intransigence, the recognition of skills, the protection of privileges and political constituencies intersected in these issues. Identified as the figure to find solutions, Crawford would also receive insistent, exasperated messages from the Bank's own officers, looking to him to use his access and influence to impress on the Indian government how little its current projects were improving the lives of the poorest farmers, and how ineffective any intervention would be if no technology was made available to farmers to act on assistance.[199]

197 See exchanges of papers and telegrams with Peter Naylor, India Consortium file, CP Box 418

198 Position Paper: Agricultural Credit, 7 June 1973, CP Box 419.

199 Naylor to Crawford, 9 April 1974, CP Box 419

No mere shopping list: India's National Agricultural Research Project

Among these demands, the more effective application of India's own research effort became a priority for Crawford. The Bank itself was growing restless with what Kraske warned were the 'technically poor, aesthetically flat and very general descriptive type pieces' supplied as reports by the Indian government. Even in Swaminathan's ICAR – energised by the prospect of high-yielding crops in the late 1950s, reorganised as a more autonomous organisation in 1964, oriented to a more science-based program in 1966 and closely linked to a new Department of Research and Education in 1973 – there seemed to be a 'lack of enthusiasm and commitment' in tackling the 'real issue of revamping and totally reorganising the Indian agricultural research effort'.[200] Crawford shared this dissatisfaction. The Bell report, in a section authored by Crawford, had pushed for a 'much needed improvement in the calibre and relevance of research and extension services', including the State Agricultural Universities (SAUs). That system, begun in the 1950s, and ramped up in the 1960s, still lacked cohesion. The pattern was familiar: there were institutions in place, but seemingly little will or capacity to make them work efficiently.

Focusing on these deficiencies, Crawford resisted the 'mere shopping list' approach ICAR customarily took to donors including the Bank: there needed to be an overarching 'research strategy' informing the work of the central research institutions and the SAUs. Given the priority of food grain and pulse production, Crawford sought greater clarity on the relative claims of animal husbandry, fisheries and horticultural research. Swaminathan contended that it was 'hard to identify first and second priorities': greater use, for example, could be made of agricultural by-products for cattle feed. Politely, Crawford moved his friend away from what he perceived to be the political need to defend established practices and the broad formulas of five year plans. He urged instead attention to the

200 'Notes of Discussions between Sir John Crawford and the South Asia Regional Office', 20 September 1976, CP Box 402; A Borthakur and P Singh, 'History of Agricultural Research in India', *Current Science*, vol. 105, no. 5, 2014: 590-91.

gaps between existing organisational structures and needs. As Crawford insisted, ICAR needed to rationalise its own research centres and strengthen the basic, applied and adaptive research abilities of the SAUs through an effective research planning mechanism.

To these ends, for two years Crawford was an active participant in discussions with State Governments, SAUs, ICAR and the Government of India on the design for a scheme that would optimise the application of research to the role of the SAUs. The turning point appears to have been a meeting late in March 1977, setting in place the core elements of what became the National Agricultural Research Project (NARP), launched in 1979 with a US$21 million soft loan from World Bank. Those elements have been summarised as 'strengthening … the regional research capabilities of the SAUs to conduct need-based, location-specific and production-oriented research', and lifting their programs above 'on-campus research' to address systematic extension services.[201] Crawford, in typical fashion, had prepared carefully for this meeting: the first point in a self-briefing note headed 'Some conditions under which the Bank would be prepared to continue with the National Agricultural Research Project' read:

> Focus shifted from Central Research Institutes (IARI, NDRI, IVRI, CRRI, etc.) to Regional Centres to be built up around existing Agricultural Universities.

This devolution represented a significant change in settings, and in the power that went with them. A comprehensive integration and coordination of India's total agricultural research effort was one of the options Crawford promoted, but no doubt it presented too big a task: it would need to encompass several Indian bureaucracies, many sovereign State Governments, semi-autonomous universities, and millions of farmers, researchers and extension workers. Even so, the heavy-hand of central control was being loosened. Sivaraman, by now on the National Planning Commission, argued for a rationalisation of ICAR and greater support

201 K Raman, T Balaguru,'NARP—An innovative approach towards FSR in India', *Agricultural Administration and Extension*, vol. 30, no. 3, 1988: 205.

for agricultural universities as part of a strategy to deal with the agro-climatic and socio-economic determinants of 'backward areas'.[202] Such a realignment also created stronger links between India's national agricultural research organisation and international agencies, and introduced greater discipline through regular evaluations by the Bank. Swaminathan, conceding that connections between national planning and the SAUs were weak if non-existent, undertook to involve all twenty agricultural universities in this forward program at a time when only eleven had been included in initial planning.

Crawford valued the ways in which this move assisted in setting national production priorities with closer attention to agro-ecological zones. If the national priority remained with food grains and pulses, it was now also possible to plan for 'regions where oilseeds, animal husbandry or fisheries are important' and 'should also be built into research programs.' He was, however, unrelenting on the need for rationalisation. Noting that 'adaptive research being undertaken by State Agricultural Departments and some universities could no longer be done in isolation', he sought a standardisation of the justification and request formats through which funding was sought. ICAR must create 'a project planning and evaluation cell capable of appraising proposals put forward by Regional Centres and monitoring progress' – to be overseen by an eminent Interdisciplinary Scientific Panel (ISP), and coupled to a regime that insisted eligible SAUs would receive support so long as they complied with standards of salaries and formal recruitment processes.

Eligible SAUs must also show they 'had established satisfactory linkages with state extension services', and were encouraged to build systems of 'stations' and 'sub-stations' to pursue research applications and to verify results. This greater focus on feedback based on local farming conditions was important at a time when the green revolution was coming into criticism for its narrow focus on a few genetic lines of rice and wheat and its dependence on high levels of inputs of water and fertiliser. Central to Crawford's proposal was that field tests be routinely

202 B Sivaraman, 'Agricultural Programme for Backward Areas', *Indian Journal of Public Administration*, vol. 23, no. 3, 1977: 433.

conducted by scientists, while agronomists helped design, supervise and analyse adaptive research trials contracted by extension staff. 'Studies of constraints and economic viability of research recommendations' should be routine.[203]

NARP was an ambitious move: 'bold' was a term used by the World Bank. Inevitably, that vision had to adapt to practicalities, just as it had to rely on the commitment and complementary plans of others. In the first phases, twelve out of twenty-one SAUs were deemed ineligible given their inability to meet basic thresholds in resources and procedures. There were delays in land acquisition and civil works; the slow recruitment of appropriate staff; and inadequate delegation of financial and administrative powers compounded the challenges. The concept of decentralisation and program formulation in consultation with the state extension services was not fully appreciated uniformly over the entire country. By 1984, in the Bank's evaluation, the SAUs in the States of Andhra Pradesh, Haryana, Kerala, Punjab, Tamil Nadu and Rajasthan were seen as having 'performed well'; considerable improvement was 'needed in the states of Madhya Pradesh, Bihar, Assam and Himachal Pradesh'. It seemed then still too early to expect any technological breakthroughs. New drought tolerant varieties of rice, groundnuts and pulses were among the outcomes, as was integrated pest management.

Followed in 1984 by NARP II – this program has a marked place in Indian agricultural history, in terms of specific achievements and more incremental but valuable institutional reforms. As summarised by L N Dash, the 'strengthening and or reorganizing of agricultural extension and research facilities were basic components' of what needed to be done, as was the reorientation of research projects to local needs. 'The ICAR was made [Dash's use of this term is revealing] to play the role of an intermediary agency in research', perhaps softening its capacity for self-protection and central direction. 'The Government's agricultural planning and policy making capacity improved. The ICAR and state agricultural

203 The extensive papers relating to Crawford's involvement with NARP are concentrated in CP Boxes 143-146

universities were strengthened.'[204] A more detailed account suggests the legacy of NARP is that:

> Problems specific to each of the 126 agro-climatic zones in the country are attempted to be solved in a multidisciplinary manner through active participation of farmers and extension agencies in all stages of the technology development process.[205]

A calculation of Crawford's personal contribution to these achievements must be impressionistic – it was not his work alone, but it clearly drew on his commitment of time, patience and vision. The relationships he built were central, and they extended well beyond the transactions in hand. He was honoured by many awards, including an honorary Doctorate of Science from Orissa University of Agriculture and Technology – one of India's oldest SAUs – early in NARP's conception as being 'responsible for nursing, with paternal care and tender feelings' networks of 'agricultural research centres that have brought new hopes of humanity to meet the challenges of poverty, hunger and malnutrition'. That language might seem a little acclamatory. It has another dimension in a letter to Crawford from Orissa's Vice-Chancellor in 1978, Dr Kissen Kanungo, as the rising tide of strikes and protest pushed the country towards a state of emergency:

> I should be most grateful to know about the possibility of your visit to India. Recent events have drawn attention to the fragile nature of our democracy; I miss the opportunity of sharing my anxiety and concern with you by unburdening myself without fear. I gather that Indonesia is the lucky country to have the benefit of your guidance and advice.[206]

204 L Dash, *Infrastructure Development in the Indian Economy* (New Delhi, Regal, 2008):306-307..

205 Raman and Balaguru, 'NARP': 212.

206 K Kanungo to Crawford, 8 September 1978, CP Box 405

More structured and vigorous dialogue: Indonesia

If NARP eventually saw a winding down of aspects of Crawford's work in India – although his visits and contacts continued – the World Bank soon offered him a comparable role in Indonesia. There were similarities in the problems to be addressed, although – as already noted – for largely political reasons Indonesia had come more recently onto the Bank's agenda, and was more centrally associated with McNamara's personal interests. Large-scale technical and financial assistance began in the wake of crisis conditions in 1968. Economic recovery commenced, but in late 1972 rice shortages set off a sharp rise in the cost of living, which continued despite the recovery of production and supplies. By the mid-1970s the Bank was alarmed at economic trends in the agricultural sector: growth in rice production had again faltered, that of 'other food crops stagnated', while increasing consumption levels led to unsustainable import costs. In areas such as irrigation, research and extension, fertilizer use and availability, earlier 'investments … will soon begin to mature' and little forward planning seemed to be in place. [207]

In this context, as noted in our Introduction, in 1978 the Bank's Regional Vice President, East Asia and the Pacific, wrote to the Chairman of Indonesia's National Planning Board, in terms outlining what had become Crawford's distinctive role:

> You have already met Sir John Crawford, who at my invitation has agreed to help us in articulating and coordinating our thoughts on the agriculture and rural development sector. Apart from his vast and valuable experience, he will be able to stand away from the Bank's day-to-day activities and provide an objective view of our operations and programs. He has undertaken this kind of role in other countries, particularly in India ….[208]

207 G Thompson and R Manning. 'The World Bank in Indonesia', *Bulletin of Indonesian Economic Studies* 10, no. 2, 1974: 56-59.

208 S Husain to W Nitistastro, 31 November 1978, CP, Box 326.

This letter went first to Widjojo Nitisastro, then Coordinating Minister for Economy, Finance and Industry, Minister for National Development, who effectively functioned as the 'puppeteer' of the highly influential group of economists – the so-called Berkeley Mafia, graduates of the University of California – then flourishing in Jakarta.[209] It was copied to senior ministers, each central to aspects of Indonesia's 'new order'. Crawford was positioned in a tighter political network than India had provided: if he went on 'pilgrimage' to India, in Hopper's term, his associations in Indonesia would be a good deal more transactional.

Under Crawford's guidance, the Bank had already begun a policy review, drawing on a resident staff in Jakarta who were 'unique among the Bank's overseas missions, in terms of their number, range of expertise and depth of involvement in the national development effort'.[210] The issues were clear, as was the fact that Indonesia could now draw on much accumulated knowledge, including that generated by the international agricultural research centres. Indonesia offered 'considerable technical scope' for the speedy boosting of core areas of production. Implementation, however, was another matter. 'Completely novel and highly effective institutional efforts must be mounted, above all to provide marketing and price supports, extension, inducements to use fertilizers … credit, and in the somewhat longer run, research'. [211]Changing patterns of consumption were likely to assist reform much more than the persistence of traditional practices in India. A diversification into 'secondary crops' might offer higher rates of growth, with the potential of managing the strains of food imports such as wheat, which were currently 'excessively' priced relative to world prices. The conclusion to this first assessment was a familiar refrain in Crawford's Malthusian optimism: 'there is a good chance to slow down the recent trend of a growing gap between demand and supply of food, and ultimately to reverse this trend'.[212]

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209 P McCawley and T Wie, 'In Memoriam: Widjojo Nitisastro, 1927–2012', *Bulletin of Indonesian Economic Studies*, vol .48, no. 2, 2012: 275-280.

210 Thompson and Manning, 'World Bank': 80.

211 'Policy Paper: Indonesia', 4 July 1977, CP Box 318.

212 'Policy Paper: Indonesia', 4 July 1977, CP Box 318.

One such area of social engineering as well agricultural opportunity was the rising challenge of population growth, in terms less intrusive than the controls envisaged for many other nations. There was an imbalance across Indonesia's provinces as a summary of Bank objectives noted in 1974: 'the overwhelming pressure of people in Java and the manpower shortage in the outer islands are the two sides' of a dilemma sure only to worsen unless concerted measures were taken. Transmigration – the large-scale movement of farmers to areas such as Sumatra and South Sulawesi – exemplified this approach. It was not a new strategy. Dutch colonial authorities had introduced a program of population redistribution in 1905, but the scale was small, and even though it went through several iterations, only around 190 000 people had been relocated by the outbreak of war in 1941. A 'national' program resumed in 1950, moving around 27 000 people a year until disrupted by the political tensions of the mid-1960s. Resuming in the early 1970s, the program was then badged less as a population measure than an initiative to increase living standards, agricultural production and national security. The third Five Year National Plan envisaged transplanting 500 000 people a year by 1979.

Transmigration was another bold scheme, featuring prominently in the language of national development: Widjojo's University of California PhD was on the topic of 'inter-island migration'. As a program it was characterised by a good deal of administrative conflict and complexity, but its momentum was confirmed in the substantial spontaneous as well as supported movement and settlement developing through the 1970s. It had been embraced by the World Bank by the time Crawford 'came on board': in 1977 the Bank pledged one billion US dollars over five years to support the scheme, a reflection of senior officials' own enthusiasm for 'the rapid expansion of Bank lending'.[213] And – like NARP – it had its own appeal to Crawford, not least as a green revolution laboratory. The stocktaking he oversaw at the Bank noted that any 'attempt simply to replicate Javanese conditions [in the outer islands] has been abandoned as impractical and inappropriate': 'the new transmigrants will need expert guidance in adapting themselves to a different agricultural pattern', but in turn 'such a program would

213 MacAndrews, 'Transmigration in Indonesia', p. 471; J Baneth, interviewed by J Kraske, 19 December 1994, World Bank Oral History Project: 48

be sounder economically and would permit much larger numbers to be settled'.[214] A series of 'smallholder development projects' were initiated and were part of the context in which Crawford was presented to the Indonesian government as someone who could oversee the kind of 'reinforced, more structured and vigorous dialogue' required to address the challenges of Indonesia's 'rural development in the broadest sense'. [215]

Crawford agreed that transmigration was a central element of necessary reforms, linking it to 'the energetic pursuit of existing policies towards irrigated rice, and the dynamic introduction of support services and other inputs in Java and the outer islands'. He requested a paper on the subject from his ANU colleagues, Heinz Arndt and Ramaswamy Meenatchi Sundrum (a Burmese-born economist who joined the university in 1970). Transmigration, they argued, was a contentious political and development issue but also 'a remarkable and in some respects unique Indonesian experiment'. If it already had some conspicuous failures in practice, it was increasingly serving as a regional development rather than simply a demographic tool, and offering the prospect of creating a new class of wage labour in the outer-islands as well as cash-cropping settlement. This new iteration already had its critics. Did landless Javanese agricultural labourers want wages more than land, and how should they be supported in this cultural as well as economic transition?[216] Would already struggling Indonesian governance systems, let alone emerging ethnic and ecological tensions, cope well with the demands that came with the scale of World Bank investment?[217] Within the Bank's Jakarta office there were also concerns at the distortions such a massive project would create amid their other, contending, more manageable priorities.[218]

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214 Back to Office Report of Pre-Appraisal Mission for *Research II,* 26 January 1979, CP Box 326

215 Thompson and Manning. 'World Bank in Indonesia': 80.

216 J Hardjono, 'Transmigration: A new concept?' *Bulletin of Indonesian Economic Studies* 14, no. 1, 1978:108.

217 MacAndrews, 'Transmigration in Indonesia':471

218 Baneth interview: 48-49

As in India, the reform of institutions was for Crawford as integral as the application of science to meeting these challenges. Extensive resource inventory studies were required before transmigration programs were introduced; that required the coordination of research, not only on soils and crops but on the economics of supply, pricing and infrastructure provision. 'Demand management' was integral to his approach, given the need to regulate the strains of growth and the movement of people. 'These necessary efforts', he insisted, would 'cut across departmental lines and need to be coordinated at a high level'.[219] In drawing all of this together, Crawford courted and found ready support from Sadikin Sumintawirkarta, who led the Agency for Agricultural Research and Development (AARD), established in 1974 and based at Bogor. But this group needed much improved resourcing and perhaps greater independence from the Ministry of Agriculture to achieve its goals. Recognising the need for external perspectives, and that separation from vested and contested Indonesian interests, Crawford recruited Kissen Kanungo with whom he had worked closely in Orissa. Kanungo was, Crawford advised, a man with a 'high degree of intelligence and usefulness in mission work'; he was, as we have seen, also keen to get out of India, and happy to join in setting up what was termed Indonesia's Agricultural Research and Extension Project.

By January 1979 – at the beginning of what seemed to be a period of relative political calm in Indonesia – the terms of this project had become 'much wider in scope' than originally intended. They now covered 'research programs for food crops, estate and industrial crops, fisheries, animal husbandry and forestry' in addition to 'support for strengthening agro-economic and soil research, transmigration, statistics and data processing and library services'. Indonesia's oil revenues allowed greater scope than in India to address objectives relating to both the 'quantity and quality' of food supply, and to proactively advance the prospects of an agricultural export base for Indonesia in the event that oil revenues declined. As in India, university linkages were judged vital in addressing a serious lack of trained scientists to assist AARD in its contributions. Existing programs such as those at Institute Pertanian Bogor – which had begun as an agricultural school under the Dutch and was founded as a university in 1963 – could be recruited.

219 'Policy Paper: Indonesia', 4 July 1977, CP Box 318.

But a chronic lack of funding meant that patterns of collaboration as well as basic expertise would need to be developed, and within what was becoming an active and sometimes competitive area of international collaboration in educational and research support.[220]

Preliminary work proceeded well. If Crawford's path in India in the mid-1970s had been enhanced by the Whitlam government's regional diplomacy, his work in Indonesia later in the decade connected with project aid emphases then taking shape in Australian assistance programs. Crawford was (as seen in Chapter Two) already a leading figure in Australia's 'aid lobby', persisting through internecine bureaucratic manoeuvring in arguing for a separate aid agency capable of lifting its program above narrow diplomatic and strategic calculations, and with a level of professionalism and authority to secure a respectable budget.[221] As chair of the Development Assistance Advisory Board in 1974, he was aware of the political complexities as well as imperatives of providing aid to Indonesia. When the incoming Fraser government disbanded the Australian Development Assistance Agency, he pushed hard for the retention a single administrative unit within the Department of Foreign Affairs: the creation of the Australian Development Assistance Bureau (ADAB) in 1976 in part reflected his success in the adoption of that terminology, rather than 'aid' alone.[222] ADAB was among the donors he encouraged to support Indonesian research. Early in drawing together his Indonesian project, for example, Crawford wrote to James Ingram, ADAB's Director and another trusted colleague/protégé, seeking to close some loops. He advised Ingram that his work 'could lead to a World Bank loan of some US$50-70 million spread over 5-7 years', with 'a very large component for training of research scientists'. There was 'considerable scope for the Bureau' to

220 M Chozin, 'An introduction to Bogor Agricultural University', *Bulletin Faculty of Agriculture, Niigata University,* 58, no. 2, 2006: 157.

221 There is not scope in this volume to address this dimension of Crawford's work, but see J Corbett, *Australia's Foreign Aid Dilemma: Humanitarian aspirations confront democratic legitimacy* (London, Taylor & Francis, 2017).

222 Minutes, Australian Development Assistance Advisory Board, 11 December 1974: CP Box 389; R Manning, 'Australian Aid': 135

assist in meeting objectives of mutual concern in Indonesia 'if you are interested in offering supplemental help'.

As in India, there were personal networks to negotiate. Part of the Australian aid program was a livestock research centre established by the CSIRO near Bogor in 1975. Building cattle farming into a cash product was then a significant component of the managed transformation of the Indonesian rural economy: how to take a declining, non-commercial small-holder practice into an industry that, on a larger scale, with export prospects, and through transitional corporate ranch models, might also make better use of the poor quality soils of the outer islands? Australian research dealt with the breeding, nutrition, productivity, and outreach dimensions of such a transition.[223] Drawing on Indonesian government support, and significant CSIRO funding and expertise, it was nonetheless an area that needed further investment and coordination. These considerations inevitably touched on rivalries between Sadikin's ambitions for the newly established AARD and existing connections between the CSIRO project and the departmental Division of Animal Husbandry, headed by Professor Hutasoit – rivalries relating to the direction of funds, the setting of priorities, and reputations. While matters ultimately for decision by the Indonesian government, Crawford, if 'speaking only as a World Bank representative', sought to find a solution that ensured efficiency in the allocation of funds, the prospect of an independent organisation with the capacity to 'give any first class scientist an opportunity to come through', and the vision to develop flexible extension services.[224]

Keenly interested as always in ensuring trusted people carried the work forward, Crawford made use of advice, contacts and titbits. Through those channels he was advised by the CSIRO's officer-in-charge of international development that Sadikin, another figure Crawford had adopted as a protégé, was 'cracking under the strain' of developing AARD and was prone to 'violent bursts of temper and

223 J Leake, 'The Livestock Industry', *Bulletin of Indonesian Economic Studies* 16, no. 1, 1980: 70

224 The phrase was used by Professor Jim McWilliam, interview with the authors, 12 September 2018.

overwhelming rivalry' with Hutasoit and his team. Crawford in turn advised Ingram that he had been far from impressed by the latter in dealings extending back to the foundation of AAUCS. The matter proved hard to resolve, not least as the Australian consensus was that the Indonesia minister was 'weak' in handling these personalities. Crawford suggested to Ingram a solution that would allow Hutasoit to 'bask in the reflected glory' of securing funds for an expansion of animal husbandry research before transferring control to AARD. That would allow the Centre to develop as more than a national agency or a CSIRO 'outpost', and not insignificantly consolidate Sadikin's standing as the kind of expert on whom Crawford could (and later did) draw.[225] An Australian-Indonesian task force was set up to investigate the issues, followed in 1980 by an independent review which explored them further. Eventually the CSIRO project was merged within the AARD. All of this was perhaps a minor matter, if 'not without some trauma' for several parties with diverging aspirations. It was, nonetheless, indicative of the factors often in play and the power of Crawford's persuasion.[226]

The wider project emerging from Crawford's Indonesian consultations gained favour from the Bank. As endorsed in June 1980 it comprised an International Development Association (IDA) credit of US$27 million and loan of U$39 million which would finance 65 per cent of total project expenses, covering its full foreign exchange costs. The Government of Indonesia would provide US$35.6 million from annual budget appropriations. The approval was especially 'timely', coming when AARD was facing 'internal political opposition': as the Bank noted, 'the implied endorsement of AARD's goals and strategies enhanced its ability to obtain vital political and financial support'. [227] By 1988 the institutes of the AARD were conducting the bulk of agricultural research in Indonesia, heavily supported by the World Bank, USAID and donations from the Australian, Japanese and Dutch governments with an annual budget of US$60 million – a rapid expansion in research for development.

225 Manning, 'Australian Aid': 137.

226 Manning, 'Australian Aid': 137.

227 Project Completion Report, Indonesia, National Agricultural Research Project (Loan and Credit 1840/1014-IND) 25 July 1990, CP Box 324.

The visits to Indonesia, and associated consultations in Washington, were only one component of the demands on Crawford's time. As with India, he remained keen to get out into field: Northern Sumatra was of particular interest for him, as an area of transmigration settlement and secondary crop experimentation. Yet his health in these years was declining. A long period of physical and mental distress for his daughter, Janet – as early as 1972 he alerted colleagues that her chronic illness might force him to reduce his international travel – seemed to lead remorselessly to her suicide in late 1978.[228] While little was said in public about her death, or even in confidence, the impact on him and his wife was deep and enduring. For a time he pulled back from commitments, indicated uncertainty about when he might travel again, and would remain for the rest of his life more guarded in his response to the demands of work that did not pause. Soon, however, he was back in the flow and flux.

Janet Crawford circa 1960

Returning to his work on Indonesia, Crawford's advice to the Bank was framed around 'worrying less about the precise order of growth and far more about the content of policy, institutions and investment required for significant progress – the Bank can prove to be really important in institution building and investment'. Alongside that emphasis, however, he was aware of variable performance in core areas of agricultural production and support. With colleagues he debated the best way of dealing with Indonesian officials over issues of policy coordination: if, as Peter McCawley recommended, the 'hands off' approach was likely to be more

228 Crawford to Hopper, 5 September 1972, CP Box 175

effective, Crawford was 'yet to be persuaded' when it came to agriculture. Surely his status was such that he could speak more directly to officials? To senior Indonesian ministers he offered advice on priorities, and was still 'welcomed' – according to a transcript of one of these meetings – as 'someone totally independent who understood the Government's problems and the constraints on their solutions'. Indonesia remained a major beneficiary of Bank support, still a relationship in which McNamara invested much and in which the politics of assistance were volatile. But as a consequence it was one in which Crawford's influence became less as the nation's status as an economy 'transforming' away from rural priorities gained traction.[229] He was, however, copied into reports on those processes, including those relating to the performance of transmigration. The early results were not promising, relating to 'major cost overruns', and 'continuing problems in sorting out competing land claims and coordinating all of the agencies involved'. These issues would not much improve over the following years.

Combating nonsense: the tensions of the IDRC

Despite, or perhaps because of his personal circumstances, Crawford still sought involvement in these major debates. Domestically, the case he had long made for the more effective coordination of long-term policy frameworks to guide assistance to Australian industry found increasing favour, and will be addressed in our full biographical study. The better balancing of market trends, the costs of protection and social goals, specifically in relation to Australian rural policy, was recognised in appointments by the Whitlam government. But his international engagement lay outside these terms. In 1974, for example, Crawford sounded out Peter Wilenski, with whom he had worked on aid policy and who was then Whitlam's private secretary, and his colleague Frederick Wheeler, Secretary of the Commonwealth Treasury, on whether the government might support his appointment as the World Bank's Australian Constituency Executive Director. The consensus, Wilenski thought, was 'no': however able he might be in the job,

229 Kapur, Lewis and Webb, *The World Bank*: 488-495 NR Fauzi, LA Savitri and M Shohibuddin, 'Questioning pathways out of poverty: Indonesia as an illustrative case for the World Bank's transforming countries', *The Journal of Peasant Studies*, vol. 36, no. 3, 2009: 621.

he was already over-committed, near retirement, and (according to Wheeler) too much 'aid biased' in his public advocacy.[230] Yet whatever the reservations 'at home', a certain ubiquity characterising Crawford's global 'third career' in projects for the Bank in India and Indonesia was complemented by roles in a new phase of international development.

In 1970 Crawford was appointed one of Canada's International Development Research Centre's (IDRC) twenty-one founding governors: he served until 1978 and would in retrospect see it as an 'enormously influential organisation'.[231]A public corporation, the Centre was a pioneer of its time. The end of the 1960s 'Development Decade' brought on a stock-taking, and amidst it the Canadian government cultivated its own 'middle power' profile through seeking to enhance scientific and technical capacity in 'low income countries' by working closely with, and enabling, 'indigenous researchers'. Following his retirement as Canadian prime minister in 1968, Lester Pearson chaired a Commission on International Development (CID), sponsored by the World Bank to assess the effectiveness of international assistance provision over the last two decades.[232] The commission's report, *Partners in Development*, served as a 'landmark' in reorienting official assistance policies.[233] It documented a marked recent fall in the net flow of resources to less developed nations, coupled to a rise in the amount of 'tied' funding and commercial investment that scarcely qualified as aid. There had also been an increase in the levels of debt to be serviced by the poor to the rich world. New to the Bank, Robert McNamara welcomed the report's attention to issues of relative poverty and basic needs. He particularly appreciated the CID's argument that aid was better directed through and by multilateral agencies than bilateral programs.[234]

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230 See correspondence at NAA A6385 270.

231 Crawford, note for the NLA, 30 September 1972, CP Box 175.

232 L Pearson, *The Crisis of Development*, (London, Pall Mall Press, 1979) 8-9.

233 K Brushett, 'Partners in development? Robert McNamara, Lester Pearson, and the commission on international development, 1967–1973', *Diplomacy & Statecraft*, vol.26, no. 1, 2015: 84.

234 Brushett, 'Partners': 96.

The IDRC reflected this commitment. Its organisational divisions included social science, population and health, industry and engineering, and human resources, each with its own research team. Social science addressed issues ranging from low cost housing provision to technological adaptation; health encompassed disease and birth control. The division of agriculture, food and nutrition science received the largest portion of support. Regional offices were established in Singapore, Bogota, Colombia and Dakar to underpin a commitment to building local capacities, also reflecting an emphasis on the tropics. The Centre's governing board showed similar innovation. Including Pearson as chair, eleven members had to be Canadian citizens, but the remaining ten were to offer the perspective and experience of developing countries. In this IDRC was not unlike the composition of TAC; for Crawford, it provided a model for ACIAR's Policy Advisory Council established more than a decade later.[235] Lady Barbara Jackson (Barbara Ward), an influential British economist and journalist then advancing the concept of 'sustainable development', was among those first governors; so was Maurice Strong, a Canadian business entrepreneur similarly embracing environmental concerns.[236] Their inclusion indicated the 'broad church' the Centre embraced. Ward and Strong were major figures in shaping what was then emerging as a new 'planetary' concept of environmental and humanitarian responsibility.[237]

The invitation to Crawford surely owed something to David Hopper as the centre's first president. A close friend since working on the Bell Report, Hopper described himself as a 'foundation hopper': his career had taken him from the Ford to the Rockefeller foundations, then to the World Bank before the IDRC.[238] He had

235 The non-Canadian appointees were from Brazil, India, Jamaica, Nigeria, Senegal, Switzerland, Thailand, United Kingdom and the United States.

236 Shapley, *Promise and Power*: 507.

237 B Huf, G Sluga, and S Selchow, 'Business and the Planetary History of International Environmental Governance in the 1970s', *Contemporary European History* 31, no. 4 2022: 553-569.

238 J Crawford, Note for deposit of papers at NLA, 7 January 1983, Box 273; D Hopper, interviewed by R Reford on the work of the International Development Research Centre: https://idl-bnc-idrc.dspacedirect.org/handle/10625/37650.

a good idea of where Crawford might fit in the IDRC, both in its outreach and internal politics. The Centre needed to play a 'supportive rather than assertive role', as Hopper put it, in defusing mounting scepticism in the 'developing world' regarding the ministrations of science. While primarily assessing applications for research support, the Centre would also invest in preparatory consultancies, conferences and workshops intended to ensure researchers in developing nations gained recognition and control in and over projects. This (before the jargon) was capacity building: it was central to what Crawford sought in both India and Indonesia. Board meetings – two a year – alternated between Ottawa and those regional centres: another addition to Crawford's regime of travel, but they were for him much more than runway lights and hotel rooms. Generously funded, the Centre commenced with an appropriation of C$4.2m from the Canadian government. By its fifth year, and drawing on a widening network of donors it had C$23.6m to spend and a total staff of some 300 employed around the world.

Crawford appreciated IDRC's flexibility, its practice of building networks rather than running its own projects, and the kind of facilitation it brought to exchanges between existing CGIAR-affiliated centres. As he remarked to one of his Australian colleagues, he wanted it to push hard from the start in shifting agendas, and to work to a strict 'sunset clause' at which its performance would be assessed.[239] The Council had, however, its own internal tensions, again reflecting the times. Addressing the first meeting of the Board in Ottawa in October 1970, Hopper insisted that concepts of development had moved well past the point where a 'whitefaced person' must 'be brought in to identify and solve a problem and then move on'. Equally, the Centre's role was as 'an instrumentality for the modernization of traditional or ancient peoples', offering through 'the rationalities of science a better understanding of this modernization process and a better facilitation of its accomplishments'. In language alone, this balance was tricky. There came a quick response from Rene Dubos, a French-American microbiologist making his own way towards a holistic articulation of environmental values. Dubos cautioned that 'technology can involve us in channels that may destroy societies rather than helping them'. Several governors concurred, then Crawford

239 McWillian, interview with authors.

came in, urging 'progress with common sense'.[240] Already in play was what Hopper would later describe as the consolidating influence of 'the genuine greens and the goofy greens', the latter 'taking root' or at least gaining political influence in opposing development.[241] This terminology was not Crawford's, and nor was the antagonism. But the issues would inform aspects of his role as a governor of the IDRC. As a reflection of the Centre's scale, form and function, this exchange provided its own microcosm of a deepening debate.

'People must eat' was the Centre's headline, spurred by the fact that in the early 1970s the world's food reserves were contracting while population tracked past four billion. Crawford scrutinised proposals for IDRC funding that had the potential to distract from that urgency. As aquaculture initiatives came before the Board – for example, on milkfish farming in South-East Asia – he cautioned that the industry was advancing too far ahead of available expertise. More worryingly, aquaculture might draw the Centre into 'the commercial exploitation of expensive foods for rich markets'. A breeding program, supported by Canadian researchers, taking place in the Philippines, and instituted in 1976, sought to recognise the importance of fish farming for small operations.[242] Governors, Crawford insisted, should also take account of by whom and how wider agendas were being set. He supported funding for research on contraception given the control private enterprise was already exerting over the provision of such services.[243] An ideal candidate for investment was cassava, then primarily a subsistence root crop of low nutritional value but versatile, resilient and suited to low-fertiliser cultivation. Cassava research – like that on triticale – provided an ideal interdisciplinary mix: agronomy, medicine (to eradicate toxicity) and genetics (avoiding a narrowing of resistance to disease in commercial varieties) as well as economics (as an export-

240 Stockton: 192

241 Hopper, Feltault interview: 50.

242 M Hibler, 'IDRC's Approach to Science and Technology for Development', *Science,* vol. 209, no. 4454: 209

243 Minutes of Executive Council meeting, 15 December 1973, CP Box179

oriented stock feed, even a fibre for paper).[244] Drawing on his observations 'in the field', Crawford consolidated discussion on cassava with reflections such as:

> The real point here is not how much can be grown, but can you develop crops which can be managed under existing conditions on small farms? … It's no longer sensible to talk only of breeding a high-yielding variety of rice or wheat. You have to go to the next stage and look at it as part of a system. I'm sure there has been some frustration and disappointment in the early stages of projects of this kind, but I'm delighted that IDRC has taken a strong lead in this area and relieved as well that the right stress was shown here on learning about the cultural practices and not merely about the crops themselves.

The social science research staff of the Centre appreciated such remarks, offered 'within the Board and privately', in supporting their work. [245]

Crawford directed much of his attention to IDRC's designated mission, seeking to avoid duplication of work underway elsewhere – including, for example, with the World Bank's involvement in Indonesian transmigration. He was prompt in moving and seconding motions, keeping business on track. If scientific research was the Centre's focus, he advised, it should avoid assisting projects that were essentially directed at technology transfer or regional planning. Decisions, however, should be informed by what support existed to translate research into practice. The Centre might have no 'core research program of its own', but it must develop the capacity to effectively assess projects' outcomes, while taking account (as Hopper would put it) of 'the sensitivities, perceptions and personal

244 B Nestel and J. Cock, *Cassava: the development of an international research network*. (Ottowa: IDRC, 1976).

245 Board of Governors meeting, 22 September 1976, pp. 49-50,, Box 179. As with triticale (another hybrid, promising higher returns from otherwise marginal land), work on cassava drew on the coordination of resources and expertise. Canadian and other universities, often in affiliation with CGIAR affiliates, were supported by IDRC's decisions. The International Centre for Tropical Agriculture (CIAT) in Colombia and facilities in Nigeria (the International Maize and Wheat Improvement Centre – CIMMYT – in Mexico) became centres for triticale research, as prospectively were bases in Ethiopia

dignities' of local scientists.[246] In these deliberations, Crawford's leadership of TAC and knowledge of CGIAR priorities were frequently drawn on: occasionally he would invoke them himself. When some governors questioned whether a disproportionate or premature amount of funding was being directed to grain legume research at ICRISAT, Crawford reassured them that TAC was very firmly in control of the new centre, and that 'he would not be happy' to see any postponement in IDRC support.[247] There were abstentions to the vote approving a substantial grant to ICRISAT in 1973, but no opposition. (By 1979, however, no longer on TAC, Crawford was more critical of ICRISAT's 'conservatism' in not moving 'more vigorous into areas outside India').[248]

In 1972 Crawford's daughter's ill-health kept him from attending that year's first board meeting, held in New Delhi. Hopper wrote a 'personal and confidential' letter at such 'crushing' news. The governors, he said, were building towards a 'major confrontation between those who would have the IDRC follow the latest Fall fashions of "environment" and "non-renewable resources" and those who would have our resources go to a few of the unspectacular tasks necessary to build the technical base for development'. He dearly wanted Crawford's assistance in determining the 'topography' of the Centre's future course.[249] Minutes don't disclose what was at stake, but by the September 1972 Board meeting – now an executive committee member – Crawford outlined a vital role for IDRC in providing 'more examination of data on the green revolution to combat some of the nonsense currently being talked and published'.[250]

This, from him, was an uncharacteristically direct intervention. At the time the green revolution was undoubtedly coming under scrutiny. The *American Economic Review* in March included a survey in a series on 'the contradictions

246 Crawford to Hopper, 5 September 1973, CP, Box 175

247 IDRC Executive Committee minutes, 15 December 1973, CP: 9-10;

248 Crawford, IDRC Board of Trustees, 23 August 1978, CP, Box 370: 58.

249 Hopper to Crawford, 10 February 1972, CP, Box 175.

250 Crawford, Notes of Proceedings, Board of Governors Meeting, 20 September 1971, CP, Box 179: 17

of capitalism' linking the green revolution to American imperialism.[251] That month an article in *Modern Asian Studies* argued that hybrid crops benefitted 'the already privileged farmers while bypassing the bulk of the rural people'.[252] In June the United Nations' landmark conference on the 'human environment', held in Stockholm, noted the urgency of 'preserving the rich heritage of plants now being replaced by new high-yield crops'.[253] Some of the IDRC governors who had shown such sensitivities were soon to leave: Ward, who had written *Only One Earth: The Care and Maintenance of a Small Planet* for the Stockholm conference, retired in 1973; so did Strong, on his appointment to head the UN's Environment Program (although he rejoined in 1977). T.W. Schultz, the eminent American agricultural economist whose work had affirmed much of Crawford's earlier advocacy, and whose interest then centred on human capital as the crucial renewable resource, was appointed to one of these vacancies, joining Crawford on the IDRC's executive. He would prove more determined even than Crawford in drawing the Centre back to first principles, testing the extent to which 'ideology' in Third World nations seemed to be trumping the 'facts' of development and dulling the necessity for 'social criticism' of projects.[254]

Navigating these priorities, Crawford saw the IDRC as another vehicle in keeping track of 'worthwhile people' in international research and giving them opportunities.[255] Even here, however, a shift was under way. Crawford and Hopper joined in briefing IDRC governors in 1976 on a tangle of issues relating to the determination of Crawford's successor in heading TAC, and the fact that despite Crawford's and 'a great many other people's' enthusiastic endorsement, Hopper

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251 H Cleaver, 'The Contradictions of the Green Revolution', *American Economic Review* 62, no. ½, 1972: 177–86.

252 E Jacoby, 'Effects of the 'Green Revolution' in South and South-East Asia', *Modern Asian Studies* vol. 6, no. 1, 1972: 63.

253 G Wilkes, H Garrison, and S Wilkes, 'The green revolution', *Environment: Science and Policy for Sustainable Development* vol. 14, no. 8, 1972: 32-39.

254 TW Schultz, Notes of Proceedings, Boards of Governors Meeting, 26 September 1975, CP Box 175: 44.

255 Notes of Proceedings, Board of Governors Meeting, 22 September 1972, CP Box 175: 4.

had neither secured that position nor the directorship of the FAO. The latter post had gone to Eduoard Saouma, a Lebanese agricultural engineer who emphasised security and environmental as well as administrative efficiency priorities in his pitch for the job. The favoured Third World candidate, Saouma would prove remarkably territorial, and do little – as Hopper informed the governors – to calm what he saw as a renewed 'cold war' distorting business throughout the UN system.[256] Hopper appreciated well-enough that there were 'courtiers and barons' in development politics, and soon moved back to the World Bank.[257] Others in Crawford's circle more directly experienced these tensions.[258]

At that same 1976 meeting the governors turned to a marked degree of soul-searching. Was the increasing scale of funding available only serving to discount support for genuine innovation in research? Was it best to focus on a few large priorities or to continue encouraging diverse and local expertise in smaller projects? Crawford expressed concern about the evident 'tiredness of staff' at the Centre as they dealt with these issues, about the continuing misfit between research and actual improvements for the small farmer, and the need to move decisively into 'institution building' to ensure research translated into enduring capacities.[259] He also now detected 'strange developments' in what were being termed 'North-South relations', of ideas being 'flaunted' rather than 'examined closely' on their implications, perhaps especially as they related to the economic foundations of development policy.[260] Here, his drive to establish the International Food Policy Institute (IFPRI) was central.

256 Crawford and Hopper, Minutes of Meeting, Board of Governors, 22 September 1976, CP Box 179: 16.

257 Hopper, Feltault interview: 29

258 See James Ingram, *Bread And Stones: Leadership and the Struggle to Reform the United Nations World Food Program*, (Charleston SC: BookSurge, 2007)

259 Crawford, Minutes of the Meeting of Board of Governors, 22 September 1976, CP, Box 179: 5-6.

260 Crawford, Minutes of the Meeting, 22 September 1976, CP, Box 179: 50-51.

No compromise: IFPRI

One major venture, supported by the IDRC, also closely supported by the Ford and Rockefeller foundations, was the foundation of International Food Policy Research Institute (IFPRI) in 1975. For Crawford, the mission for the Institute went back to his first engagement with the policy dimensions of international food supply in the 1930s. A more proximate link was in his exchange with Eugene Staples at the Ford Foundation in 1969, when he had articulated the necessity for economic expertise to be integrated into any attempt to address agricultural underdevelopment. Crafting a better fusion of science and policy had driven much of Crawford's work, advocacy and jockeying through the interstices of international development. The CGIAR's Technical Advisory Committee (TAC), with Crawford as chair, provided one crucial vantage from which to coordinate his campaign to bring 'the lonely economist' more centrally into play – and to counter similar initiatives being advanced in a less focused way, and with less likely independence, by the FAO.[261] In mid-1974 a TAC sub-committee, chaired by Crawford, endorsed the need for a micro-economically informed appraisal of the impacts of the 'new technology' on agriculture. Such an inquiry would consider the 'scarcities of critical inputs, price fluctuations and other crises' that underpinned global food insecurity, but at the level of national performance rather than international aggregates. It would of necessity require a guarantee of independence sufficient to ensure it could deal with 'controversial or politically sensitive issues' and offer – 'constructively' – a critical assessment of the policies adopted by governments in dealing with food production, distribution and trade.

This, in itself, was quite a remit. A further implication was that such an inquiry would need to be sustained in institutional form, tracking governments' performance over time. Its independence must be not only financial but also in expertise: those appointed to undertake these appraisals could in no sense be representatives, or delegates, of nations or other agencies. They must carry authority as individuals. And their services would need to range from offering 'an early warning system of

261 Crawford, Concluding Remarks, 'Socio-Economic Research Seminar, 28 July 1973: 5; Report of the Seventh Meeting of TAC, 4 February 1974: 38-46

emergency situations' to providing advice on longer-term food policy and market outlooks. For the sake of efficiency and objectivity, this institution would need to avoid providing guidance on technical assistance – that was available elsewhere. It must have the resources to support a capacity in data and analysis to 'speak freely and with confidence in a way which governments would listen to'.[262] Again, this was a remarkable, perhaps presumptuous brief. If, so far, the focus of international development had been on the under-developed states, this scrutiny would also need to extend to the distortions that advanced countries such as the United States or in the European Union imposed on markets for agricultural commodities, and on the distribution of their benefits. [263] Again, this had been a long crusade on Crawford's part, and his commitment to it inspired many including in the Australian bureaucracy, a rising generation who would effectively pursue trade liberalisation among them. Such appraisals would also tread on the interests of agencies that saw these matters as their patch – agencies with which Crawford had battled in the past. IFPRI was one big culmination of Crawford's aspirations.

It was also, like IDRC, of its time. The World Food Conference, held in Rome in November 1974, grew out of increasing dissatisfaction with the work of one of those international agencies, the FAO. Identified as fine in dealing with commodities, the FAO was seen as ill-equipped in addressing the 'larger-scale global problems of food deficits and inadequate agricultural production' highlighted by the global shortages of the early 1970s. Crawford would add that the FAO was crippled by the political pressures it had to mediate, and a resultant weakness in its staffing. Momentum for change came particularly from Third World countries, and younger officials seeking less politically slanted bureaucratic processes, and a more extensive and coordinated NGO sector. That conference, focussing on issues of food production, food security, and trade, fell short of decisive action. It did, however, reflect the frameworks within which these issues

262 C Farrar, *IFPRI's First Ten Years*, Washington, IFRI, 2000:10

263 A Valdes and J Zietz, *Agricultural Protection in OECD Countries: Its Costs to Less-Developed Countries*, Research Report 21, (Washington, DC: IFPRI, 1980).

would be discussed.[264] Among them were questions relating to the political as well as structural determinants of food insufficiency, the restrictions to trade and the possible stimulus of commercialisation, and the need to boost small farmers' access to agricultural inputs, credit and marketing opportunities.[265] The conference's activism was not Crawford's style; but it was part of the questioning upon which he seized.

TAC endorsed its subcommittee's proposal, recommending the model to the CGIAR. With the jolt to debate arising from the World Food Conference there was a quick move to action. With substantial World Bank support, by May 1975 Crawford had been appointed one of IFPRI's foundation trustees, and its chair. He was joined by Norman Borlaug, the scientist who in 1970 had been awarded the Nobel Peace Prize as the 'founder' of the green revolution: other trustees were from Nigeria, Syria, Bangladesh, Brazil and the United Kingdom. By August 1975 the first senior research staff were in place, with a mandate to 'provide an objective analysis of the current world food situation', identify opportunities and constraints in expanding production, and those policies to be pursued by 'governments, regional and international agencies' that would enhance production, widen trade opportunities, and improve efficiency and equity in food distribution.[266] The IDRC model was clearly evident here, together with a five-year make-or-break framework: but the Institute was to be a more targeted mission.

As chair, at roughly four meetings a year, mainly held at head office in Washington, Crawford zealously defended IFRPI's independence, and the necessity of prioritising its particular contributions to 'real problems' rather than 'interesting

264 AV Rooy, 'The frontiers of influence: NGO lobbying at the 1974 World Food Conference, the 1992 Earth Summit and beyond', *World Development*, vol.25, no. 1, 1997, pp. 94-96; T Weiss and RS Jordan, 'Bureaucratic politics and the World Food Conference: the international policy process', *World Politics*, vol. 28, no. 3, 1976: 422-439.

265 C Gerlach, 'Famine responses in the world food crisis 1972–5 and the World Food Conference of 1974', *European Review of History: Revue européenne d'histoire*, vol. 22, no. 6, 2015: 23

266 Farrar, *IFPRI*:16

studies'. He would, in rallying both trustees and staff (a team which built to 21 by 1978) make a virtue of the fact that while the major international bodies and their subsidiaries had 'power' , IFRPI must cultivate 'influence' through the quality of its work, especially by avoiding 'simplistic formulae'. There was an expanding 'vacuum' in policy-relevant research, he argued.[267] Faced with impasse on so many issues, governments were seeking direction, but often had little capacity to support the application of good policy. Here was IFPRI's vital contribution: the CGIAR institutes might be 'restless' to provide policy advice, but that was not their role. It was, however, IFPRI's mission – and, equally, the Institute needed to take care not 'to lapse into a pure science research organisation'.[268] Policy analysis must remain its focus.

Even that narrower remit, however, still left the question of a seemingly endless range of matters to be determined, especially as Crawford again characteristically insisted, no aggregate or mathematical approach to the formulation of priorities could substitute for experience and informed judgement. Similarly, 1975 was not a particularly auspicious time to seek funds to support a new venture, especially since IFPRI's self-denying ordinance of independence meant keeping distance from government donors and even World Bank support. The Institute would need to make a virtue of its modest budget and specific comparative advantage, at least until it proved and insured its integrity and identity.[269]

A first move was to insist that while the issues to be dealt with were about global systems, the audience for IFPRI's work must be policy makers in developing countries, on a country-by-country basis, and that socio-economic considerations must be central to analysis. Again, the small farmer must be the priority, but with a focus on the systems required to support them. [270] This in itself was not a simple matter – and the minutes of trustee meetings record intense deliberations over this and related issues. A 1979 discussion records such exchanges. As one

267 Crawford, IFPRI Trustees Meeting, 21 July 1975, Persley Papers (PP).

268 Crawford, Minutes, Board of Trustees meeting, 6 February 1979, PP: 30.

269 Crawford, Minutes, Board of Trustees meeting, 19 September 1977, PP: 23.

270 Board of Trustees meeting, 11 February 1976, PP: 15-16.

trustee, the British economist Andrew Schonfield observed, the economics of the individual, the family and collectivities each raised their own 'epistemologies': 'how far should IFPRI go down the road' of attempting to comparatively evaluate them?[271] There was the need for a detemination of the Institute's position on the then topical debate between the distribution of food for work – with its established links to aid paradigms – or to provide the work to allow people to buy food, to encourage more active market mechanisms.[272] Peter Oram, an expert on crop and livestock management with whom Crawford had worked closely at the FAO and had who joined IFPRI's research staff, suggested the need to 'look at the long-term implications of consumption patterns shifting from traditional and ecologically suitable commodities to ones which are not ecologically suitable'. Borlaug agreed: once a 'taste for wheat' was established, 'the biological scientist is pressured to try to do a research job to unscramble an evolutionary process that took millions of years to develop'. And just as the IDRC had wrestled with rising environmental scrutiny, Roger Savary, another trustee and the French Director-General of the International Association of Agricultural Producers, noted that such discussions were being confronted by a 'new bible' of scepticism regarding the impact of agricultural technology.[273] Crawford let such discussions develop, but determinedly drew the focus back to priorities. With limited staff and budget the Institute might best buy time by addressing first the major constraints of greater food production.

Independence was one thing; relevance sometimes another: Crawford endorsed IFPRI framing some of its programs around offering independent estimates of investment requirements to meet production targets set by the World Food Council, the UN body that had emerged from the World Food Conference. He seems to have been happy for staff to provide assistance to the Asian Development Bank, and to participate with the World Bank on an assessment of food policy for Bangladesh – even if this triggered a discussion amongst some trustees as to whether a 'thin line between research and operational activities' was being crossed,

271 Schonfield, Minutes, Board of Trustees meeting, 6 February 1979, PP: 12

272 Minutes, 6 February: 12-14.

273 Borlaug, Minutes, 6 February 1979, PP: 15; Savary: 11.

and questioning the criteria on which the Institute should choose specific countries or groups of countries for closer study.[274] Some favoured a closer look at African priorities. All were aware that the slender resources of the Institute were being strained, and needed marshalling if the compromises inherent in 'peddling' its work were to be avoided.

Again, Crawford's matrix of roles was evident, sometimes in a sense of the overwhelming challenges to be faced. In 1978 he conceded that IFPRI's studies 'make it very clear that the Sahel region, even as a whole, is not likely to be able to marshal the required investment resources, and certainly does not have at the present stage the technology needed' to design any policy likely to substantially improve its food supply. Yet he 'expected the IDRC to see research [on these issues] as a basic need because without that the methodology is not going to appear'. In such instances 'I doubt very much whether it is wise to leave national research [policy] entirely to national mercies, because the real priority problems' are beyond their capacity. He probably had in mind that IFPRI could provide a service, comparable to that made available by the BAE in Australia (which he had founded), to developing countries, a service that he surmised, they could not afford for themselves. On the other hand, and taking care not to be seen to be 'pushing Indonesia', Crawford emphasised the 'real need for work there' in planning for the development of secondary export crops, enhancing an appreciation of trade policy, extending IFPRI's interest in issues of food consumption as well as production, and building on Australian successes in nurturing those connections.[275]

In these inevitably selective, strategic terms, IFPRI sought to position itself for its next transition. Budgetary pressures, in part associated with inevitable expansion, and also by the political faltering of the World Food Council, meant that by 1978 IFPRI was at a cross-road: inflation was rising, its budget was strained, the need for its services increasing, but the challenge of preserving independence undiminished. Out of need as well as a reflection of its maturity, IFPRI returned to the question of integration with the CGIAR system. In a series of exchanges with McNamara,

274 Minutes, Meeting of Board of Governors, 15 February 1977, PP: 15

275 Crawford, Minutes of Meeting of Board of Governors, 21 February 1978, PP: 23.

Crawford took the lead in negotiating this process, manoeuvring around CGIAR's imposition of a moratorium on further expansion.[276] As he explained, the current IDRC, Ford and Rockefeller allocations amounted to US$1.7 million annual budget, supporting 17 professional staff. To meet its objectives the Institute needed to go to a staff of 25 and US$2.5 million yearly. The CGIAR was the obvious benefactor, but the CGIAR in itself relied heavily on donor nations. Would they support the kind of scrutiny IFPRI sought to offer?

Rebuilding some bridges towards this incorporation, the February 1979 meeting of the Board of Trustees was held in Rome, at FAO headquarters, as a gesture – as Crawford noted in starting the first day – of 'active collaboration'. Some tensions were, however, soon evident, not least as IFPRI members (true to mission) began to question data supplied by governments to and seemingly accepted at face value by the FAO: what scrutiny had been given to figures that could well have an aura of 'political cooking' about them?[277] Insisting on the policy focus of IFRPI's work, Crawford saw such evaluation as integral to the day's task, as was the imperative of ensuring messages were conveyed in terms that could be useful and accessible to 'those concerned with policy formulation' (he gave the example again of Australia's BAE here).[278] IFPRI, as he insisted, needed to set its objectives in accordance with the resources available, and capitalise on the fact that at last people were talking not about a 'world food problem' but about the diverse dimensions of food production, distribution and consumption. These were, perhaps not too subtly, gestures of demarcation as much as accommodation.

Later in 1979 the task of assessing IFPRI's suitability for association with the CGIAR went again to TAC, which in turn sent a team headed by Professor Carl Thomsen, from the Danish Ministry of Agriculture, to appraise operations in Washington. Thomsen was impressed by what he saw. IFPRI was envisaged as offering TAC and the wider CGIAR system – among much else – comprehensive advice on demand trends, the effectiveness of national research systems, and

276 Crawford, Minutes, 21 February 1978, PP: 62

277 DBell, Board of Trustees meeting, 11 February 1976, PP: 5.

278 Crawford, Board of Trustees meeting, 11 February 1976, PP: 28.

links to infrastructure, commercialisation and labour market initiatives. He was, however, keen for some changes, including orienting the Institute more towards micro-level analysis of the application of technologies as well as the broader issues of trends and trade. IFPRI was also encouraged to focus on specific objectives and programs for research rather than services and consultancy, and to move its headquarters away from Washington to increase access of developing nations. While not too far from Crawford's original vision, these directions were perhaps at variance with the political and funding climate he had attempted to navigate and perhaps suggested a narrower focus. One sign of these transitions was in the adjustment Crawford had made, at both the IDRC and at IFPRI, to the foundation of the Independent Commission for International Development, chaired by Willy Brandt, another of McNamara's big projects, launched in 1977 to offer a review of international development. 'For the sort of money', Crawford jibed on hearing of this initiative, or 'even for much less than that, the IDRC could establish a group of people around the world who could provide the data and ideas'. But if he had first been 'shocked' at how ill-prepared and lacking in advanced consultation the Brandt Commission project had been, he also came to appreciate its public 'clout' – and its highlighting of systematic inequality between the newly-badged Global North and Global South.[279] This was another point of intervention for IFPRI's expertise. The services and personal advice Crawford was soon offering to Brandt's team, from the IDRC, also figured in his pitch for greater support for the IFPRI.

Eventually after further study TAC's recommendation was accepted, 'CGIAR formally agreed to accept responsibility for IFPRI beginning in 1980'. [280] In 1977 Crawford undertook to continue as chair of IFPRI's board of trustees to 1978, but needed to reduce travel in the interim: his commitments elsewhere remained extensive, his health was variable, and his domestic circumstances still challenging. In mid-1979 he was replaced by Samar S. Sen of India, an Indian agricultural economist who came from the World Bank. While Crawford did not preside over

279 Crawford, IDRC Minutes of Meeting, Board of Governors, 13 March 1977, CPBox 179: 42; IDRC Minutes of IDRC Executive Committee, 4 June 1977, CP 179: 19.

280 Farrar, *IRPRI*: 23

the transition into the CGIAR system, he had engineered significant elements in shaping both institutions and their fusion was a significance achievement for him. IFPRI became the CGIAR's 'premier policy research body' over the following years, producing a steady output of reports and services valued by developing countries and also informing broader social-economic perspectives within the CGIAR network. [281] The Institute's official history accords to Crawford 'the original vision' for IFPRI and 'the tenacity to see it through'. Crawford – a jealous observer of his legacies – would have appreciated that endorsement. In time IFPRI adjusted to the evolving paradigms of food security, from investment in human and social as well as physical capital to nutrition and sustainable development goals and a greater decentralisation of expertise away from Washington.[282] These emphases highlighted, again, what was changing in the contexts of development, and the relationships its institutions were to build.

281 DJ Shaw. *Global Food and Agricultural Institutions* (London: Routledge, 2008) 164-66.

282 S Fan, 'Some lessons from a life in food policy', *Global Food Security*, vol. 22, 2019: 33-36.

Chapter Five

The Long Road to the Establishment of ACIAR

The North-South moment: the Australian context

It was perhaps ironic that as the politics of international development become more complex for Crawford, the Australian agenda moved more in favour of his commitments. The second half of the 1970s saw a mirroring of his experience in the mid-1960s, when the Menzies government's rubbishing of the Vernon Report on domestic economic reform had run alongside the opportunities opening with the Bell Report on India. Crawford did not quite make it into the inner circle of advisers associated with the Whitlam government. He sounded out the opportunities for a closer engagement with the prime minister's team on international as well as national policy matters, but the more open social conscience of Nugget Coombs, or the urbanity of Fred Gruen, fitted more the style of Whitlam's Canberra. The Fraser government proved more receptive.

In part this receptivity was a matter of circumstances and chance. The unravelling of the Australian economy through the 1970s reflected many of the tensions Crawford had identified for years: the 'confidently Keynesian critique of protectionism', for example, that spanned his advocacy for Australian agriculture in the 1940s, his pursuit of multilateralism in trade in the 1950s, and the balancing of 'external viability' and internal growth he sought in the 1960s.[283] Whitlam might have been one of the strongest defenders of aspects of the Vernon Report, but the urgency of Labor's program in 1972 did not lend itself to the systematic

283 T Rowse, 'The Social Democratic Critique of the Australian Settlement', in J Hocking and C Lewis (eds), *It's Time Again: Whitlam and Modern Labor*, (Melbourne: Circa, 2003) 219-43

application of that advice. In 1973 Crawford, as we have seen in Chapter Four, joined a working group, led by one of his protégés, Stuart Harris, in preparing a discussion paper on the next iteration of rural reconstruction. In the past, that paper advised, the 'expansion of production was, rightly … the critical objective', the aim must now be to 'enable the sector to adjust effectively to market needs and opportunities'.[284]

In 1979, as chair of the Fraser government-commissioned Study Group on Structural Adjustment, Crawford drove home these points at a much broader scale. Australia was 'likely to continue to slide down the table of world living standards' unless urgent measures were taken to break 'inward-looking' patterns of work, production and investment.[285] As a member of this study group, Bob Hawke valued Crawford's wisdom and leadership in moving his own thinking further towards the program he brought to government in 1983. Crawford seems to have repaid that high regard, sure that Hawke was likely at some point to become prime minister.[286] Similar realignments were evident in the Australian government's approach to international development, and in pursuing them other younger close colleagues, such as Peter Drysdale, consolidated their careers.

As noted in Chapter Four, the terms of debate over international development through the 1970s shifted towards the paradigm of a division between the Global North and the Global South. The formulation brought greater sophistication to understanding patterns of inequality in the distribution of wealth and opportunity. '"South," unmoored from strict geographic associations', served as 'a marker for power compromised by political and economic disenfranchisement', evident not only in access to resources, employment and markets but through the lived

284 *The Principles of Rural Policy in Australia: A Discussion Paper*, (Canberra: AGPS, 1974) 10.1.

285 *Report of the Study Group on Structural Adjustment*, (Canberra: AGPS, 1979) 1-5

286 S Okita, 'Pacific Regional Cooperation' in *Policy and Practice*: 123.

'hierarchies of gender, race, and class'.[287] This perspective was not new: it had been central to the terms in which Crawford read his way back into development economics in the early 1960s; but the synthesis was gaining a fresh political edge. Those divisions were accentuated by increasingly imbalanced patterns of demographic change, industrialisation, urbanisation, political volatility and environmental degradation. The 'North' in its affluence, technology, its relative political and civil stability, and established infrastructure services, might seem the obverse to the 'South', but the paradigm emphasised the implication of each in the other's destiny. Gaining increasing formality in the Brandt Commission, the North-South divide might not have been a terminology with which Crawford was comfortable. It was, however, implicit within his commitment to multilateralism and to a systematic appraisal of the dynamics within which international development advocacy needed to be practiced. It was also one in which, self-evidently, Australia had an ambiguous place – a vantage Crawford usually saw as opportunity in finding a point of leverage in discussions in which aid, development, local expertise and international need coincided.

As seen in each chapter of this study, for Crawford Australia's aid program was an integral dimension of engagement with international development, as adjusted to each variation in the terms of such a commitment. In 1961 he had called for an 'even greater' Australian contribution to closing the gap between food production and population growth in Asia, not least through his initiative in drawing together a disparate aid sector. Actively supporting the Whitlam government's move to separate the aid program from the constraints of diplomacy, in 1973 he was appointed chair the interim Development Assistance Advisory Board to guide the government in the design of an independent Australian Development Assistance Agency (ADAA). That role took him deeper into the issues that would become associated with North-South divisions, including the place of women in development programs. It also brought him into closer association with figures such as Peter Wilenski, with his keen eye to issues of systematic discrimination in

287 A Trefzer, J Jackson, K McKee, and K Dellinger. 'Introduction: The Global South and/in the Global North: Interdisciplinary investigations', *The Global South* vol 8, no. 2, 2014: 3

policy development, and Keith Dowding, the Presbyterian minister who insisted on connecting causes ranging from refugee advocacy to nuclear disarmament. One of the issues recurring in the discussions of the Board was how best to institutionally support Australia's development program, including the form of a development institute perhaps to be associated with universities (Crawford could not but be advocate for the advantages of the ANU) that would overcome the opacity of Australian systems to international agencies. In these discussions the IDRC model was the example to which many advocates turned. Beyond aid, addressing the North-South divide guided Crawford's initiatives in developing the concept and practices of Pacific Regional Cooperation, especially in partnership with Japan and in dealing with the 'sensitivities' that needed placating among ASEAN nations. That topic, however, lies outside the scope of this volume.[288]

Crawford in 1976, Peter Drysdale in background

288 See chapters by Peter Drysdale and Saburo Okita in Evans and Miller (eds), *Policy and Practice*

Western with a difference: finding the ACIAR model

That Australian emphases in a more expert-driven aid program would lie in agricultural science and development had been underscored in an enquiry undertaken for ADAA by Helen Hughes in 1975. An appointee to Crawford's Economics department at the ANU in 1963, and at the time working at the World Bank. Hughes touched all the appropriate bases. The green revolution, she argued, offered a way out of pre-occupations with industrialisation as a path to development; it provided a link between managing the sociological strains of slowly transforming small-scale agriculture in the South and the prospects of reaching into the 'very large markets' of the North; it was a path for Australia to chart in the aftermath of the Indo-China war and Britain's entry in to the EEC; and dry-land, semi-arid tropical, tropical agriculture were areas of distinct Australian expertise (and already with strong bases in the AAUCS). But how to achieve 'critical mass' was the challenge.

Outwardly, the times were not auspicious. The election of the Fraser government in late 1975 led to the disestablishment of the ADAA by February 1976, and of its advisory board. As Crawford would recount, this was the only position from which he had ever been sacked.[289] The context was one of severe financial stringency, and a desire to clamp down on what was seen as Labor's adventurist activism. It did not, necessarily, translate to a lack of interest in Crawford's objectives. The thinking triggered by Hughes' enquiry centred on the establishment of an institute which, while small in scale, would serve these goals. The models under consideration, in broad consultation commenced by the Department of Foreign Affairs, included the Sussex Institute of Development Studies, founded in 1966 and associated with a 1970 'manifesto' emphasising social change and global inequality, and the IDRC.[290]

289 Manning, 'Australian Aid', *Policy and Practice*: 138.

290 For background to these initiatives, see CP Box 389.

Crawford's preference for the latter, although with some tactical deference to the spirit of the former, was evident in his initiative to first draw together a small group of academic, government and business contacts – including the chairman of Conzinc Rio Tinto – which led to forming a more formal if still private study committee in June 1975. This group began sketching a plan for the establishment of an International Research Assistance Foundation.[291] In many ways their outline represented Crawford's long held ambition for a new model of official aid delivery, and a road-map for what would become ACIAR. His thinking had moved along since his 1961 Roy Milne Memorial Lecture, matured by his experience in India, as Chair of the CGIAR's Technical Advisory Committee, and at IDRC.

Now Crawford argued for 'a higher priority for science and technology' and 'more specifically for applied research as one of principal engines of development – not the only one, to be sure, but the strategic factor in most development activities'. The model recommended in early 1976 was for an international research foundation without a specific sectoral focus but directed to assisting 'developing countries [to] … provide food and the basic elements of decent living standards for their people'. Their report began by drawing from *Small Is Beautiful: A Study of Economics As If People Mattered*, published in 1973 by the economist and statistician, EF Schumacher. Raising the standard of living in rural life, Schumacher insisted, 'requires the development of an agro-industrial culture so that each community can offer a colourful variety of occupations to its members'. Schumacher continued: 'the crucial task of this decade is to make the development effort appropriate and more effective so that it will reach down to the heartland of world poverty, to two million villages.'

291 In addition to Crawford, the group consisted of: Mr. A. F. Gurnett-Smith, Secretary (Research) CSIRO; Mr. G. B. Gresford, Scientific Adviser, Department of Foreign Affairs; and Mr. AA Neylan, formerly of the International Bank for Reconstruction and Development. Each member served in a personal capacity. Although the Foundation proposal was different from that proposed by Hughes, her recommendation led to the strengthening of the Development Studies Centre at ANU comparable in many ways to the Sussex Institute.

Building on this ethos – and departing from the technocratic emphases of the 1960s – Crawford's study committee proposed an institution that would range widely and with freedom of enquiry, commissioning research projects rather than conducting research itself. It should play a catalytic role in identifying priorities and encouraging research within developing countries (a relatively small proportion of its funds was to be allocated to Australia or other advanced countries). It should collaborate with universities, colleges and governmental research agencies, fostering a symbiotic relationship with the Australian official aid program and relevant NGOs. Its legal entity should be a small internationally-constituted Governing Board (also on the model of the IDRC) with members serving in personal capacities, appointed by the Governor General on advice from the Minister for Foreign Affairs, and with the Director of the Australian aid program an ex officio member. Among its core objectives – in language reflecting Crawford's impatience with the 'interesting' at the expense of the pressing – was to avoid the 'well-intentioned but unplanned, almost random, collection of responses to requests' that too readily characterised aid and research programs.[292]

This prospectus sat for some time. The environment for new aid institutions was not good. But the Fraser government – whatever its financial discipline and constraints – was also thinking pragmatically about Australia's interests in a changing world. Attuned not so much to Whitlam's foreign policy independence as to the emerging agendas of the 'second Cold War' and the 'new international economic order', Fraser himself, and his Foreign Ministers Andrew Peacock – astute and ambitious – and then Tony Street – conceptually adroit, committed to boosting Australia's middle power status – were receptive to this message on reorienting international development. Crawford's own networks were extensive. In senior officials, such as James Ingram, who had been temporarily appointed First Assistant Secretary in ADAA, was now head of the newly-established Australian Development Assistance Bureau, and who had first worked with Crawford in the Department of Trade, he had people whose careers he had encouraged, who

292 JG Crawford, *A Proposal to Establish an International Research Assistance Foundation in Australia*, Canberra, 1976: 11

were aware of the politics of international relations, and played them well.[293] As Australian High Commissioner in Ottawa, Ingram was impressed by the work of the IDRC. Late in 1977 with the concurrence of Peacock, Ingram established the Consultative Committee on Research for Development (CCRD), under Crawford's chairmanship, once more to bring coherence to a disparate field.

The formation of the CCRD was a small but pivotal step: it brought together senior figures in the Australian Public Service and the Australian research community; its membership included economists, scientists and administrators from CSIRO and Australian universities; it could offer discrete advice on issues such as consolidation of Indonesia's AARD, as discussed in Chapter Four. 'In a landscape littered with institutions', the press observed, the Committee had in Crawford someone who 'can pull enough of the strings together to provide a viable program' – especially if a mechanism could be found to better link aid funding between Australian research expertise and overseas projects.[294] The Secretariat, which included a highly competent international researcher, Dr Gabrielle Persley, became a ginger group – backed by Crawford and Ingram – within the embattled aid bureaucracy, working to bring Australia's research capacity to bear on the problems of developing countries. Its Secretary was a young but ambitious Foreign Affairs Officer, Dr Denis Blight, recently returned from a diplomatic assignment in Africa. This was another team defined by fresh opportunity and deepening loyalty. CCRD's agenda concentrated on agriculture but also looked at issues in health and energy, technology transfer and local resilience.

These issues gained additional prominence in April 1978, when Fraser established a committee to report on Australia's relations with the Third World.[295] This inquiry similarly highlighted 'global issues – such as food, energy and the conditions for economic growth – which represented an increasingly important factor in economic relations'. Chaired by Professor Owen Harries, a political scientist who

293 Corbett, *Australia's Foreign Aid Dilemma*: 44.

294 *Canberra Times*, 17 February 1978: 2.

295 Australian Department of Prime Minister and Cabinet, Press Release dated 6 April 1978.

worked with Peacock as shadow foreign minister and was then serving a range of roles in Fraser's office, the committee's membership included senior government officials, representatives of the union and industrial sectors, and an academic – EK Fisk, a close colleague of Crawford at the ANU. Reflecting the restrictions of the time, Harries' committee had little research capacity of its own: it relied on contributions from existing interests, only enhancing its significance in drawing on a diverse range of expertise and experience. Seeking to move beyond the hollow language of 'special' relationships, Harries recommended that Australia should see the Third World not as an 'anxiety' but a chance 'to associate with its growth, to derive benefits from expanding trade, to exercise political initiatives, to demonstrate our technological skills and special experience'.[296] 'Western with a difference', Australia was in a position to exploit 'expanded economic exchange' with developing nations, drawing on its own expertise and moving from simplistic agendas of modernisation into more integrated critiques of dependency. Australia was well-placed to avoid descending into the kind of self-reflexive 'moral' doubt at the failure of their own 'professed values' that troubled more established First World nations.[297] Here, with some echoes of Crawford's pre-war commentary on Japan, agriculture developed as one area of distinct opportunity

The report of the Harries Committee, released in April 1979, recommended that Australia initiate a 'sustained program of science and technology cooperation with developing countries [which] could put these capabilities to effective use as part of our aid effort'. The work of Crawford's circle was implicitly acknowledged in Harries' reflection that:

> It has been represented to the Committee by several persons … that Australia has special qualifications for assisting the Third World in agriculture. There are numerous examples of successful Australian assistance in this field. The possible significance to Australia's relations with the Third World of shortfalls in food production, together with our technological capacity in this area, would seem to imply the need for Australia's aid program to pay

296 O Harries (Chairman), *Australia and the Third World* (Canberra, 1979) xvii, 177.

297 Harries, *Australia and the Third World* : 113, 122, 177.

> particular attention to assisting food production in developing countries. … The Government should consider the funding of agricultural research in Australia, specifically directed at overcoming agricultural problems in developing countries, by establishing a separate appropriation within the aid budget.[298]

The usefulness of such a venture, and its timeliness, was confirmed when Fraser asked officials to suggest initiatives that might be announced as part of Australia's hosting of the Commonwealth Heads of Government Meeting (CHOGM) in 1981. The agenda for this meeting was explicitly framed around North-South issues, and Fraser's conviction that Australia had a place in navigating between them 'as a middle power subject to pressure from the north as well as the south – from the north by being denied access to markets, and from the south for better access to Australian markets'.[299] The proposal from Crawford on the establishment of an International Research Assistance Foundation, together with the early deliberations of the CCRD, provided the basis for such an initiative.

John Baker, then head of Policy Branch in ADAB on secondment to the Department of Prime Minister and Cabinet, chaired a hastily assembled interdepartmental committee after officials learnt of a speech prepared by Harries for Fraser in advance of CHOGM.[300] As then formulated in a Cabinet submission, the centre would be 'responsible for significantly increasing the level of Australian agricultural research effort directed at meeting the needs of developing countries', and – on a contractual basis – assisting 'relevant Australian institutions' to undertake medium and longer-term projects. Its name, however, must fully reflect its international orientation, and was settled as the Australian Centre for International Agricultural Research (Fraser was heard at one point to refer to it, more tactically, as his 'Southern Hemisphere Food Security Group').[301]

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298 Harries, *Australia and the Third World*: 153.

299 F Mediansky, 'Problems in Australian Foreign Policy January-June 1981', *Australian Journal of Politics and History*, vol. 27, no. 3, 1981,p. 294.

300 D Blight, private communication from John Baker.29 November 2023

301 JD Andrews, note for file, 27 March 1981, NAA A1209/1981/329 Pt 1.

Bureaucratic contestation surrounded whether a separate statutory authority was justified. There were also questions as to where it should be located, coming from state and territory leaders who made bids variously for Townsville or Darwin. The case for a statutory authority was sealed in a firmly worded submission from Ingram to Street and some subtle intervention from Crawford among a small number of wavering Liberal backbenchers .[302] The centre was to operate within the overall context of Australian foreign policy, managing its own affairs. Its primary financial contributor should be the Australian Government, with a substantial commitment of A$25 million over three years in the first instance, to be subject to thorough appraisal at twelve years, and instilling an ethic of rigorous program evaluation. With minimal administrative costs, it was expected to build a symbiotic relationship with the Australian aid program and encourage collaboration with kindred groups in universities, CSIRO and private organisations

ACIAR was created in June 1982 with solid bipartisan support: it was to report to the Minister for Foreign Affairs, with a small, authoritative Board of Management and a Policy Advisory Council on which a substantial number of members should be drawn from countries other than Australia (early appointees came from Zimbabwe, Western Samoa, Thailand, Indonesia and India). The Centre could not carry out research on its own behalf, and must avoid duplication of work already in train; it could be directed to commission projects by its minister; it was not to initiate training or extension work, but prioritise 'mobilising and expanding' the coordination of science and the new developmental diplomacy of the times. As Street acknowledged, its lineage went back to the Harries report and the Brandt Commission. The Centre was, as its Minister stated, to address 'one of the major tragedies of our times that each year millions still die simply because they do not have enough to eat'.[303] With Canberra (perhaps inevitably) chosen as its headquarters, ACIAR opened its doors in the corner of an office block in the process of refurbishment. It was necessary to trip over folded carpets and woodwork to gain entry to these interim premises.

302 J Ingram to Crawford, 14 October 1981, CP Box 387.

303 T Street, *Commonwealth Parliamentary Debates* (CPD), 27 October 1981: 2519.

As Denis Blight recalled, 'Crawford personally oversaw and guided the implementation of the Act's provisions'. Chairing the selection committees for all major staff appointments, he saw to the recruitment of Professor Jim McWilliam – with whom he worked since Iran and on a review of the CGIAR – to the crucial position of Director with an uncharacteristic intervention at the end of interviews of naming his preferred candidate in advance of any discussion.[304] His obvious preferences secured the appointment of other staff, not so much in terms of people he would direct but those he could trust. There were some on the margins of this favour who rankled at what seemed 'Crawford's micro-management style of governance'.[305] He was certainly exerting his influence, also identifying candidates for the Policy Advisory Council: among them was SW Sadikin from Indonesia, whose base in AARD Crawford had strengthened, as shown in Chapter Four. Another was Bukar Shaib from Nigeria, trained as a veterinarian who accepted the invitation because in his view 'if Sir John was associated with any initiative, it was sure to be worthwhile'. As Blight's recollections continued:

> From the beginning under Crawford's guidance, ACIAR adopted an open-door policy of consultation. The objective remained the same – how to bring whatever was relevant of Australia's research resources to bear on important problems of agriculture in the developing countries. Seminars amongst researchers throughout Australia were targeted at identifying areas of Australian comparative advantage.[306]

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304 Crawford personally asked Jim Ryan to apply for the post of Deputy Director, and recommended the appointment of Dr Eric Craswell, Dr Gabrielle Persley, and Dr John Copland as foundation research program coordinators. He supported the appointment of Dr Denis Blight through appeals against his promotion to the position as Centre Secretary. Another early appointment as program, coordinator, Dr Bruce Champ, a grain storage specialist, reflected Crawford's commitment to building collaboration with areas such as the CSIRO.

305 L Falvey, *Derek Tribe: International Agriculturalist, Founder of the Crawford Fund*, Crawford Fund, Canberra, 2102, p. 132.

306 Unpublished personal journals of DG Blight, 1982. The legislation was presented to the House of Representatives in November 1981. The concept of ACIAR [and Crawford's association with it highlighted in the Minister's Second Reading Speech in the House of Representatives] was reflected in bipartisan parliamentary support.

As ACIAR found its path, Crawford advised on clashes of mission and purpose confronted in the design of project proposals, seeking to ensure that genuine problems of agriculture in the developing world were addressed in partnerships without distracting Australian research institutions, and their researchers, from their core purposes and careers respectively. It was for him standard practice, but in ACIAR he had his most settled institutional remit. There was some scepticism that established scientists would participate in ACIAR projects, but that proved not to be the case. Crawford relished the relative autonomy of a group that could follow his motto 'forgiveness is easier to gain than permission'.[307] Processes of consultation were translated into ACIAR's first planning document, *ACIAR – Partners in Agricultural Research*, drafted by David Spurgeon on loan from IDRC, under the supervision of Persley and Lloyd Evans. In guiding these processes, Crawford would have remembered Mick Shann's concerns expressed on DFAT's behalf in 1969 on the establishment of the AAUCS (see Chapter Three) about 'aid funds [being used] as a roundabout way of building up Australian universities themselves' – a sentiment that was still alive in the 1980s. He also listened carefully to the advice of Keith Boardman, a biochemist and member of the CSIRO Executive appointed to the ACIAR Board, that the best results of partnerships would be gained by 'fusing' ACIAR projects to mainstream Australian research programs in ways that would benefit from the momentum of, and help to resolve problems in, Australia's own agricultural development.

By 1983, 34 projects had been approved; 30 were under active consideration. Research spanned from food technology, plant protection, nutrition and improvement, forestry, soil salinity and animal health. Spreading out in workshops and seminars as well as applied activities from South-East Asia and the South Pacific Islands, ACIAR was also taking an interest in South Asia, Africa south of the Sahara and beginning to ponder how best to approach engagement with China. The latter was emerging as a particular interest for Crawford: a series of visits beginning in 1974 impressed him with the speed and enthusiasm (shared with another young colleague, Ross Garnaut) with which Chinese agriculture was leaving the cultural revolution far behind, embracing new science and technology,

307 As recalled by J McWilliam, interviewed by the authors, 13 September 2018.

and achieving a 'rather nice blending of collective farming and individual initiative' likely to soon outpace the still fragmented practices in India.[308] An early project on the 'venerable pigeon pea' (then scarcely known Western diets) engaged governments and researchers in Thailand, Fiji and Indonesia, academics at the University of Queensland, and connected with programs at ICRISAT at Hyderabad, where Australian participation was strong.[309] This was a fusion Crawford welcomed. Centre staff came to see themselves as 'brokers', perhaps picking up the phrase Crawford would apply to himself, 'conducting field visits and consultations abroad, and drawing upon talent at home'.[310]

ACIAR's philosophy proved crucial in the early years as it remains in current times to sustaining broad-based backing from diverse constituencies, including amongst the Australian farming community and the National Party. Equally, Crawford's stature was sufficient to attract international scientists to engage with ACIAR and in turn, reciprocally, with Australian scientists at all stages of their careers. ACIAR still attracts bipartisan endorsement as the 'jewel in the crown' of the Australian aid program, and in providing a vital point of mediation between Australian research and international agencies. It has retained its corporate identity within the Foreign Affairs and Trade Portfolio.[311] It is a crucial element of Crawford's legacy; in many ways it represents his peak achievement within Australia's international development program.

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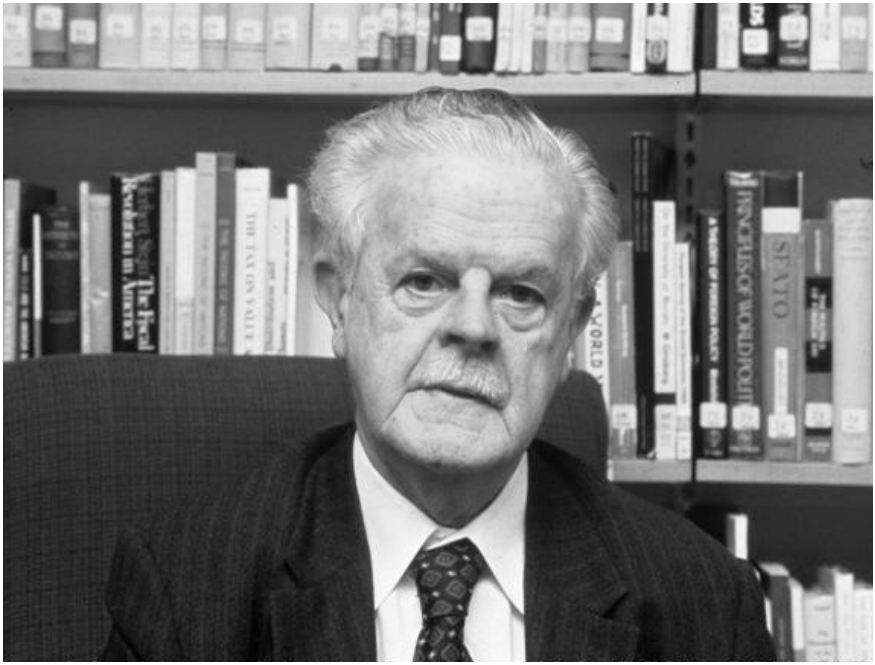
308 JG Crawford, Report on a visit to China, 3 August 1978, p. 10, Crawford Papers NLA, Box 281.

309 ACIAR, *Annual Report 1982-1983* (Canberra: AGPS, 1983) 4.

310 B Currie-Alder, *Research for the Developing World: Public Funding from Australia, Canada and the UK*, (Oxford: OUP, 2015) 100

311 As Minister for Foreign Affairs and Trade, the Hon Julie Bishop used this phrase often: see for example CPD, 17 March 2014: 2047. It also featured in reporting of ACIAR's *Ten Year Strategy* in 2018.

I suppose I should: the last days of Sir John Crawford



Crawford in 1978 (National Archives Australia)

Much recognition had come to Crawford over his career. Knighted in 1959, in 1981 he was named Australian of the Year, in recognition of his standing as 'one of the foremost architects of Australia's post-war growth' and also given his prominence as an advocate for international development. 'I have had', he reflected on that award, 'for the first time in my life the personal experience of the power of television when complete strangers in the streets … approach me to express congratulations and goodwill'. The year before the recipient had been the controversial historian, Manning Clark; the year before that, Neville Bonner, the first Aboriginal person to be elected to the Australian parliament; in 1982 Sir Edward Williams was recognised for his role in the success of the Brisbane Commonwealth Games. In the calculations of honour and recognition, Crawford's claims were perhaps less publicly conspicuous than theirs: but it was a most significant tribute for all

that, and indicated another register of the Australia's taking stock of itself at that time. 'He has', the *Canberra Times* noted 'played a leading role in the North-South dialogue between industrialised and under-developed countries.[312] '

But he was tiring. There had been bouts of ill-health throughout his life, as stress, over-commitment, travel and no small measure of personal distress took their toll. In the early months of 1984, however, Crawford was particularly unwell. Given his history, this was no cause for alarm amongst his colleagues and acolytes. In the 1970s poor health had made him hesitate before taking up the post of Chair of TAC; and he had withdrawn from a planned CCRD Review Mission to Indonesia and the Philippines in 1979 due to illness. He had recovered from both episodes and resumed his active engagement as evident from the bare narrative of busyness this account offers. He had continued to Chair the CCRD, TAC and the Board of IFPRI (1975 to 1981) as well as other tasks allocated to him by the Australian Government.

The seriousness of his condition became apparent by January and February of 1984. Crawford had travelled to Indonesia to chair meetings of the Board and Policy Advisory Council of ACIAR that were being held in Puncak, outside Bogor. Just before the Board meeting Crawford seemed unsure of the purpose of his visit and unsteady in his thinking. He asked Blight repeatedly for reassurance on the nature of the meetings and who was participating. 'Where are we' he asked and 'what meeting is this?' Blight thought that Sir John appeared to be having difficulty with his short-term memory.

The Board meeting took place but without Crawford displaying his sureness of touch and facility in summing up discussions and in expressing the view of the Board. The five other Board members quickly sensed that something was amiss and made allowances so that no upset was caused. The minutes of the Board meeting give no hint of Sir John's condition. Blight worried, however, that Crawford might find the more complex task of chairing the larger meeting of the Policy Advisory Council which comprised a total 17 members including 8 from the developing world. The PAC was due to meet the following day.

312 *Canberra Times,* 27 January 1981: 1

By then, however, Crawford had seemed to recover. Blight remembers seeing him diving athletically into the swimming pool at the Puncak hotel and noting his gracefulness with admiration. Crawford also handled the discussions of the PAC 'swimmingly', chairing the meeting with his customary skill and patience, steering the Council through complex and difficult issues. Even then Blight gained the impression that he was operating on 'intuition and soul'. Crawford's condition worsened overnight. Blight had travelled out to Jakarta Airport to see him safely onto his next flight. Crawford had been given some paperwork by the Australian Embassy in Jakarta, delivered to him in some sort of diplomatic wrapping. He seemed to think that the information in the package was highly sensitive and wanted Blight's assurance that it would be safely protected. Blight assured him that it would be carefully handled but could make no sense of the request or its basis. For a man so practiced in the sensitive management of information, these uncertainties were alarming.

Within a few weeks of returning to Canberra, Crawford was on the move again. He had been a member of the Board of the IFDC since 1976 and was re-elected in 1984 to serve another three-year term. In March 1984, he travelled to Muscle Shoals, IFDC's headquarters in Alabama to lead its Program Review. On 1 March, he made a statement at the Review which was very general, repetitive and somewhat rambling. The IFDC had established itself as a quality research institute, even though it had not yet gained entry to the CGIAR. He counselled management and staff that they should not interpret this exclusion as marking the institute as second rate and expressed confidence that it would in any case gain entry one day. He spoke about the importance of a fertiliser policy as an element of a national agricultural policy for those countries that did not have alternative revenue streams and for whom agriculture and 'making themselves self-sufficient' and 'better off in terms of food supply for their population' was 'the number one priority'. According to Debra Rutland, who was Executive Assistant to the President and CEO of IFDC, Crawford was becoming 'very confused and disoriented'.[313] After discussions with his wife and Pamela Chapman, Crawford's assistant, one of IFDC's directors accompanied Crawford from Muscle Shoals to

313 Debra Rutland, email to D Blight, 9 April 2016.

San Francisco where he was 'turned over to staff from the Australian Embassy and Qantas personnel to get him home safely.' Rutland added 'later that year we were contacted by Ms Chapman who said that "for reasons best known to Sir John, he is concerned by … untied ends etc., and he wanted her to travel to the US to finish his unfinished business." According to this account, 'Sir John believed that while in Alabama he fell and split his head open on the pavement. This was not the case but he insisted that it did happen and his doctors recommended that everyone working with him go along with this belief to keep him calm.'

It was some time after his return from Alabama that Crawford was involved in a minor car accident. This event persuaded him that he had to see a doctor. After some tests, x-rays revealed the presence of a brain tumour. Blight recalls receiving a telephone call from Chapman conveying the news. Blight, who had been talking to his colleague Gabrielle Persley when the call came in, broke into tears on hearing the news, a reaction shared by many other close associates of Crawford.

Blight remembers conversations with Chapman and Crawford at the time. A close friend from the World Bank urged Crawford to travel to America to benefit from what he described as advanced surgical techniques to remove the tumour. He also recalls a discussion with Crawford canvassing whether or not he should go ahead with the surgery and Crawford saying wearily, 'I suppose I should.'

Blight was one of a small number of people invited to visit Crawford in his hospital ward. In order to convey a business as usual demeanour, Blight took a number of draft Board papers with him to leave with the patient. Crawford greeted Blight with a sardonic remark, 'Ah the blight of my life,' words accompanied by an all suffering grimace that might have been a grin and a glint in his eye. One other person to pay him a visit was then Prime Minister Bob Hawke, who recalled of his visit that Crawford was not conscious at the time 'but looking down on him … one could not help but think has there been any man in the post-war period within the era of public service who has done more for his country?' Sir John died on 28 October 1984.

Conclusion

In November 1984, less than a month after Crawford's death, Jim McWilliam as the foundation Director of ACIAR, attended the cluster of annual meetings of the Consultative Group for International Agricultural Research (CGIAR) convened by the World Bank in Washington. These meetings included the 'Centers Week', during which the leaders of the then thirteen research centres operating within the CGIAR system made their case before the range of donors – government, philanthropic, non-government – and interested parties who oversaw the determination of priorities and funding allocation. For Crawford, as foundational Chair of the CGIAR's Technical Advisory Committee (TAC), these meetings had particular importance: he prepared for them assiduously, even as they reflected the ambiguities surrounding his multiple roles. TAC, as discussed in Chapter Three, had an over-arching responsibility for reviewing performance across an expanding international research system. The Committee must have, he insisted, independence from donors in ensuring need and science were not swayed by vested interests just as he supported campaigns to increase such funding. TAC must, he said, keep its focus on the quality and relevance of research while evaluating inevitable pressures to expand CGIAR investments that were building from food production to agricultural productivity and self-reliance.[314] In these calculations, Crawford had also to take account of the many-facing political dimensions of international development. In that November 1984 program, McWilliam advised his minister, Bill Hayden, back in Canberra, the CGIAR Chairman had taken the opportunity to give 'a moving address in recognition of the enormous contribution made by Sir John Crawford to international research and development', including 'in the creation, management and development of the CGIAR system'. How, McWilliam asked, might it be most appropriate to begin recognising that role?[315]

314 P Pardey, J Roseboom, and J Anderson. *Agricultural research policy: International quantitative perspectives* (Cambridge: CUP, 1991) 312, 325.

315 McWilliam to Hayden, 18 December 1984, NAA A4250/52/1988/836

Shahid Husain was the then serving as CGIAR chair. We began this book with Husain's letter to the chair of Indonesia's National Planning Board in 1978, encouraging him to work with Crawford as someone who had the capacity to 'stand away from the World Bank's day-to-day activities' and to offer an 'objective view' of how the Bank's programs might connect with Indonesia's aspirations. In 1984 Husain – new to his role with CGIAR – opened Centers Week with a sobering address. It was time, he said, for a more substantial review of the system as a whole – one that did not take the centres in isolation but closely scrutinised demonstrable impact and efficiency and longer-term prospects for funding. It was time to follow through 'unpalatable recommendations about mandates, about the quality of research, about focus and objectives': the *why* as well as the *what* of research.[316] Among the challenges behind reappraisal in that week's discussion was the observation from the then TAC chair, Professor Guy Camus, that the CGIAR's focus needed to shift from Asia to Africa. But that, in itself, raised issues of path dependency, institutional rigidity, and geo-politics.

Arising from that 1984 exchange between McWilliam and Husain, a first step in recognising at least the international dimension of Crawford's work was the establishment of the Sir John Crawford Memorial Lecture, supported by CGIAR, ACIAR and ADAB. A year later in November that first lecture was delivered in Washington by Robert McNamara, who had stepped down as President of the World Bank in 1981. McNamara paid generous tribute to Crawford as 'a man of vision, and a man of action': who 'clearly understood that progress throughout the developing world was not only theoretically possible, but quite certainly attainable. Attainable, however, only if all of us – in the rich and poor countries alike – are willing, as he was, to think clearly enough, plan wisely enough, and work hard enough to help make it happen'.

316 S Husain, Opening Address, 6 November 1984, p. 3 at https://cgspace.cgiar.org/bitstream/handle/10947/271/csop8411.pdf?sequence=1&isAllowed=y

Fittingly, McNamara's topic was 'The Challenges for Sub-Saharan Africa'. The popular impact of Bob Geldorf's 'Live Aid' concerts of July 1985 aside, McNamara lamented the silence that seemed to have largely fallen over public awareness of, policy engagement with, and political sympathy for, the region:

> The harsh truth is that sub-Saharan Africa today faces a crisis of unprecedented proportions. The physical environment is deteriorating. Per capita production of food grains is falling. Population growth rates are the highest in the world and rising. National economies are in disarray. And international assistance in real terms is moving sharply downward.[317]

Such alarm had driven each stage of Crawford's career; it was striking that the issues had lost none of their urgency, even if the terms of their discussion had changed. Given the near impossibility of concluding even a summary of only one dimension of Crawford's life in a few pages, there are perhaps some core themes to be taken from these intersecting moments. We have traced in this book the many areas in which Crawford's commitment as a 'Malthusian optimist' to addressing world hunger adapted to changing circumstances and opportunities – and, as Husain recognised, created those opportunities in a remarkable sequence of institution-building commitments. His embrace of agriculture, and specifically of the promise of the green revolution, was not as a simple solution, but a means of 'buying time' while other pressing issues, of the kind of McNamara highlighted, might also be addressed. That path required building public constituencies of support alongside the will of governments, and the recognition of individual talent and expertise. His energy was consumed in that pursuit. His private life reflected some of its burdens. His personality – determined, jealous, canny, ambitious, and principled – held to a firm path: that of the 'honest broker'.

There was, clearly, much more he wanted to do. Arguably, however, the times were already changing (again). ACIAR itself offers one perspective. As Bruce Currie-Alder suggests, with Crawford's death it lost not only a progenitor but its

317 RS McNamara, *The Challenges for Sub-Saharan Africa* (Washington DC: World Bank, 1985): 1, 31-32.

'most powerful ally'. The Hawke government's austerity budget in 1986 saw the Centre's appropriation drop by one-fifth and a sense of vulnerability edged into its management. The 1990s brought a renewed commitment to ACIAR as it turned towards themes of sustainable development and accepted funding allocations more tied to specific projects, and later to Australian 'national interests', than to its own independent determination of core funding objectives.[318] Crawford would have railed against such pressures. More generally, in the years that followed his death, no area of Australian public funding was cut more steadily and severely than overseas aid. As Jack Corbett argues, Crawford's death meant that sector lost a figure who had proven remarkably effective in gaining 'the ear of both sides of government while also remaining heavily involved with development NGOs'. 'Nobody since has exerted such a steady influence in the way that Crawford did', Corbett judges, whether in direct policy advice or in the guidance provided by those whose careers he encouraged.[319] As, hopefully, this study has suggested, Crawford's individual contribution was assisted in some ways by his generational context, and by that of those younger people who worked with him. The succeeding generation has faced different challenges, and with different perhaps fewer resources on which to draw.

From this perspective, Crawford would have been better pleased as well as honoured by the establishment of the Crawford Fund for International Agricultural Research in 1987, led by one his mentees, Professor Derek Tribe. Sitting initially within the Academy of Technological Sciences and Engineering before it was constituted separately as an independent, not for profit company, the Fund was supported by the Commonwealth through the ACIAR, by State departments of agriculture and private donations. The Fund – as one of its strongest supporters, the late John Kerin, put it – 'specialises in carrying out agricultural research in developing countries lacking scientific resources'. 'Its activities include extension, training, the conduct of master classes on scientific and generic topics and advocacy for international and national agricultural research'. Through scholarships and training opportunities, tailored for a rising generation of researchers, the Fund

318 B Currie-Alder, *Research for the Developing World* 106.

319 Corbett, *Australia's Foreign Aid Dilemma*: 64-65.

emphasises 'raising awareness' of pressing issues and enhancing the international networks Crawford so zealously encouraged. For Kerin, who served as a highly effective Minister for Primary Industry in the Hawke government, an early career conversation with Crawford on development assistance 'was the most enlightening half hour of my life.[320] He treasured the synthesis Crawford offered, and made the encouragement of agricultural research, and research evaluation, central to the work of his portfolio.

The forthcoming full biographical study of Crawford will cover more of the lanes in which he swam. As we have tried to illustrate in this one volume, following the narrower lanes of international agricultural research for development, Crawford's legacy casts a sharp light over public policy and the associated professional communities in Australia. The same is true for those in India, Indonesia and elsewhere in international domains touched by association with him and who benefited from his generous friendship and mentoring. Among the many questions his life raises are: what was it about him – his background, personality, skills, perhaps even his nationality – that made this impact possible?

Capacities to address the pressing issues still facing the globe in food security (including those left in abeyance in Crawford's world and time such as environmental degradation) might benefit if the same rigor and balance that characterised his approach were now brought to debate. We might think here of the emphasis he placed on giving scientists their heads in areas of research once they had been independently adjudged as being of high priority, of avoiding undue bureaucratic or donor pressure, and escaping the long shopping lists peddled by interested parties. In a recent intervention, John McIntire and Achim Dobermann have called the CGIAR back to core objectives: 'a scientific and problem-driven focus on fewer global and regional research priorities, supported by adequate long-term funding, rigorous methods of project evaluation, and

320 J Kerin, *The Way I Saw It: The Way it Was: The making of national agricultural and natural resource policy* (Melbourne: Analysis and Policy Observatory, 2017). 109, 609.

management that stimulates innovation and seeks verifiable results'.[321] These were all primary goals and matters for mature judgement for Crawford. In his 2019 Crawford Memorial lecture, Ross Garnaut sketched a vital 'transformational' role for Australia in a future zero-carbon world economy, one in which the particular features of rural and provincial Australia, and the expertise of Australians in creatively managing their resources, would be 'a worthy challenge for another Crawford'.[322] In reflecting here on aspects of just one dimension of his life, perhaps this volume might offer some guidance for such a task.

321 J McIntire and A Dobermann. "The CGIAR needs a revolution." *Global Food Security*, vol. 38, 2023, p. 1007.

322 R Garnaut, Sir John Crawford Memorial Address 2019 at: https://www.crawfordfund.org/news/sir-john-crawford-memorial-address-2019/

Notes on Sources and Acknowledgements

Sir John Crawford's personal deposit of papers in the National Library of Australia (MS 4514) approaches 27 metres of archive boxes. The collections of the Australia National University include extensive materials relating to his association with that institution (and the photograph albums from which we have drawn our images). The National Archives of Australia holds voluminous records relating to Crawford's long and varied work for the Government of Australia. A 'select list' of Crawford's publications, included as Appendix B to Millar and Evans (eds) *Policy and Practice*, exceeds 100 items; their Appendix C adds over 20 public inquiries on which Crawford served as chair or member. These lists do not encompass the frequency with which he appeared as a public commentator, presided over meetings, guided discussions, and offered advice or encouragement in less formal settings. Given the specific size and purpose of this book, it has been impossible to offer a comprehensive reflection of that wealth of resources, even as it relates to our focus on international agricultural research. The funding provided by the ARC Linkage Grant (LP130100268) supporting a larger biographical project on Crawford, and on which this volume draws, enabled Dr Chad Mitcham to assemble a Zotero database capturing much but far from all of this material. We encourage readers seeking further information on sources to contact the authors for guidance.

For his diligent work on that database, our enduring gratitude to Chad. To our colleagues on the full 'Crawford project', Frank Bongiorno, David Lee and the late Stuart Macintyre, our appreciation of their guidance in dealing with these specific aspects of our man. To Dr Gabrielle Persley, who provided valued materials from her own collection, and patient advice along the way, we also extend many thanks. In the course of the larger project, we have spoken to many who worked with Crawford in a range of capacities. Their reflections have been greatly appreciated. The late JC Ingram tracked in lock-step with Crawford toward the establishment of ACIAR and offered a number of specific comments on that process. The late

Peter McCawley was similarly helpful in relation to Crawford's involvement with Indonesian development. We owe a particular debt to the late MS Swaminathan who gave of his time generously during extended interviews at his home base in India. Again, given the scale of this volume, it has not been possible to fully reflect or acknowledge all contributions here. As we have emphasised in our Preface, the 'big book' will provide a more appropriate opportunity for that recognition.

This present book has a particular objective in reaching out to the constituency of the Crawford Fund, which was a generous partner in the ARC Linkage bid underpinning our research. The Fund has waited patiently for a book that can capture more detail on one central aspect of Crawford's life, as it relates to their mission, than even that big book might allow. We hope this volume can at least begin to serve that purpose.

Index

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Crawford Fund FOR A FOOD SECURE WORLD