

THE CHANGING DEVELOPMENT PARADIGM AND AUSTRALIAN AID STRATEGY⁺

Neil Dias Karunaratne

1. THE DEMISE OF THE TRICKLE-DOWN PARADIGM

Nearly three decades of donor aid strategies have been influenced by guidelines formulated on a set of development theories which are collectively referred to as the 'trickle-down' paradigm in this paper. In its barest form this paradigm pre-supposed that maximisation of the growth of GNP in a developing economy would set in motion a chain of structural changes in the economy that would ensure that the fruits of growth would percolate to the poverty-stricken masses. The trickle-down paradigm was firmly rooted in neo-classical growth theory and was abstracted as the Harrod-Domar planning model, which provided the theoretical underpinnings for many a development plan in the 1950s and 1960s.

The Harrod-Domar model enunciated that growth was constrained by the scarcity of resources for capital formation (Harrod, 1939; Domar, 1946). The two gap models (Chenery and Bruno, 1962) elaborated the Harrod-Domar constraint into a dual constraint of foreign exchange scarcity and domestic savings scarcity and argued that the foreign exchange constraint was the dominant constraint that needed to be overcome in order to facilitate the growth of GNP. Foreign aid was advocated to overcome the scarcity of foreign exchange for capital formation in developing economies. The Pearson Commission, in fact, argued that advanced countries should provide 1 % of their GNP, 70 % of which should be on concessional terms to assist developing economies to grow at a targetted rate of 6 % per annum (Pearson, 1969). Such a growth rate, it was conjectured, would lead to developing economies 'taking off' into self-sustained growth as hypothesised by Rostow (Rostow, 1960).

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In all trickle-down strategies the role of industrialisation in development was emphasised. The success of the Russian model led to its emulation by developing economies (e.g. the Mahalanobis Model in the Indian 2nd Five Year Plan (Mahalanobis, 1955)) producing a spate of import-substituting industrialisation programmes. The technical complementarities of industrial sectors were to be harnessed for growth maximisation either in a balanced fashion (Nurkse, 1952) or in an unbalanced fashion (Hirschman, 1958).

Developing economies en bloc grew at unprecedented rates of nearly 6% per annum during the first two UN Development Decades (1950-1970). However, the fruits of growth failed to trickle down to the masses in the developing economies. Rather, the system served to skew income distribution in favour of the rich and against the poor. The rich became richer and the poor became poorer, thus exacerbating vicious dualism - the cleavage between the 'haves' and 'have nots', urban elites and rural peasantry, the modern and the traditional owners of technology, the educated and the illiterate, the employed and burgeoning unemployed.

This spectacular growth did not result in development as the gruesome statistics of poverty narrate: 1 billion people were malnourished due to serious calorie-protein deficiencies; 1 billion people had no proper housing; 1 billion adults were illiterate; 1.3 billion people earned less than \$ 90 per annum and languished in hard-core poverty; 1.5 billion people had no resort to basic medical facilities; 1.7 billion had no access to safe drinking water; 1.7 billion could not expect to live beyond the age of sixty (McHale and McHale, 1979). The failure of foreign aid to ignite the development process led to frustration, social tensions, political upheavals and even violent insurrections in some developing countries. Development planning based on the trickle down paradigm was decried as pseudo-planning and a crisis in planning became evident (Faber and Seers, 1972).

The failure of the trickle down paradigm also widened the economic gap between the aid donors and aid recipients. The growing demand for a New International Economic Order (NIEO) was forcefully articulated by advocates in the North and the South. The NIEO envisaged a new compact on global poverty by changing the inequitous nature of world trading relations, the industrialisation pattern, international liquidity creation and technology transfer. More liberal aid, debt relief, and SDR-aid link, taxation of the common heritage of mankind (space, sea-bed, mineral resources) and the channelling of revenues for development by a World Treasury were issues that figured prominently in the North-South dialogue on the feasibility of the NIEO (Karunaratne, 1978a).

2. GENESIS OF A NEW REDISTRIBUTIVE OR NEEDS PARADIGM OF DEVELOPMENT

The disenchantment of the trickle-down paradigm led to its eventual demise as a source for development guidelines in the mid-1970s. The World Bank and ILO studies heralded the new paradigm. 'Redistribution with growth' was the new catch cry in development (Chenery et al. 1974). The seven country missions undertaken by the ILO to Columbia (1970), Sri Lanka (1971), Kenya (1972), Iran (1973), Philippines (1974), Dominican Republic (1975), and Sudan (1976) experimented with employment creation based on an appropriate technological mix to redistribute income in favour of the poor. However, the early employment-oriented strategies excluded from their scope the vast seas of absolute poverty that occurred in developing economies. Target groups of people suffering from absolute poverty were eventually identified and policy packages integrating investment and consumption were designed for precision bombardment of the poverty that prevailed amongst these groups. However, countervailing forces in the form of bureaucratic corruption and political subversion often frustrated the eradication of poverty in the target groups.

Poverty is an all pervasive phenomenon in developing economies and piecemeal attacks on pockets of poverty or target groups could not therefore be successful. It is in this context that the 'basic needs development paradigm' was conceived (ILO 1976). This is an effort to synthesis growth with the objectives of redistribution and employment generation by production of consumption goods to satisfy basic needs. It was argued that a choice of labour intensive technology would generate employment and therefore increase effective demand for basic goods. The articles of the ILO declaration on the basic needs strategy (ILO 1976) clarify further the tenets of this new development paradigm which has received such wide acclaim from both aid donors and recipients as a step in the right direction. The World Bank has estimated that the basic needs paradigm presents a feasible plan to eradicate poverty within a generation and that it would cost only \$ 125 billion to implement it.

The basic needs paradigm adopted by the World Employment Conference and endorsed by the UN General Assembly (UN 1976), enshrines the notion that satisfaction of basic needs of the population is the primary objective of any development plan (Article 1). To achieve this goal two complementary targets of (i) meeting family minimum requirements such as food, clothing, shelter and consumer durables; and (ii) community needs such as safe drinking water, transport, education, medication and sanitation are specified (Article 2). Popular mass participation in plan formulation and implementation is regarded as an imperative and this approach distinguishes it from the top-down planning of the earlier paradigm (Article 3). Employment as an essential part of social development is now recognized (Article 4). Satisfaction of basic needs implies

dynamic and country-specific planning to take account of socio-political and institutional differentiations in the developing world (Article 5).

The new paradigm has prompted criticism from both donors and recipients of aid. Some critics in recipient countries argue that the new paradigm is a diversionary ploy to distract attention from the demands for a NIEO in that it expects developing economies "to put their own house in order instead of seeking to remove inequalities among nations" (Akhund 1979). Others recognise that a NIEO and a new domestic order go hand in hand since "in the absence of internal reforms, the implementation of the NIEO will not itself suffice to meet the basic needs of the masses in the poor countries" (Ghai 1978). Aid recipients also voice apprehensions that this is a soft option by the aid-weary donors to forsake the increased volume of commitments required to combat world poverty. Development economists perceive the welfarism in the new paradigm as a myopic trade-off of long-term growth for the satisfaction of short-term consumption needs of the masses in developing economies.

However, many donors and recipients are convinced that the needs paradigm is "a new approach to development" (OECD Review 1977, p. 95). It calls upon donors and recipients of aid to emphasise new development priorities. Leading aid donors have already legislated that aid should be directed to the support of countries which pursue development strategies designed to meet basic human needs and achieves self sustaining growth with equity. The Development Assistance Committee (DAC) of the OECD also commends the basic needs paradigm and its new development perspective. This includes "concentration on the poorest countries and population groups, emphasis on rural development, food production and nutrition, or on social sectors, such as health and education, attention to issues such as employment, income distribution, local administrative capacity, availability of basic goods and services etc." (OECD Review 1978, p. 73). The DAC review also indicates the importance of the issue of inter-country aid allocation in the implementation of the tenets of the new needs paradigm. It "will mean reduced aid flows to middle income developing countries. There is probably little doubt that more widespread concern with poverty oriented development programmes would lead to increased aid flows going to primarily poor countries, a trend which the DAC has been trying to encourage for some years" (OECD Review 1978, p. 72). As will presently be shown, these perceptions of the DAC thinking on aid suggest an important moral for the reformulation of current Australian aid strategy.

3. RADICAL CRITIQUES OF DEVELOPMENT PARADIGMS IN TERMS OF DEPENDENCY AND UNEQUAL EXCHANGE

Although the growth-distribution synthesis implied by the basic needs paradigm has been enthusiastically embraced by major multilateral and bilateral aid donors and recipients, it has been criticised by structuralists and institutionalists of the centre-periphery school (Myrdal 1957) and by the neo-Marxist critics of the dependencia school (Dos Santos 1970; Sunkel 1969). They contend that the aid trade centred development paradigms foster the 'development of underdevelopment' (Frank 1966) and relegate the aid recipient economy to a relationship of dominance and dependence or a centre-periphery connection with the aid donor. It is alleged that the economic activity in the aid-receiving periphery is reduced to a reflex of the economic activity of the centre. Thus the self-respect and dignity implicit in autonomous economic development eludes the grasp of the aid-recipient economy. The economic subjugation of aid recipients occurs through multinational corporations that collude with the comprador bourgeoisie and the indigenous elites to leak benefits from trade and aid-stimulated activity in developing economies. The leakages are engineered through notorious managerial practices such as transfer pricing and invoice manipulations. In practice, the textbook panegyric of free trade between rich and poor countries, is turned into a process of cumulative 'unequal exchange'.

A caricature of this 'unequal exchange' thesis, as propounded by a French Marxist (Emmanuel 1972), asserts that high wages in centre economies, maintained by union pressure rather than by commensurate productivity, result in the extortion of reinvestible surplus value from low-wage peripheral economies through a deterioration of the terms of trade. The wage differentials lead to the centre giving less value in exchange for more value from the low wage peripheral developing countries. Unionisation and migration laws inhibit labour migration which could equalize wages in the centre and periphery. However, capital is relatively mobile and so profits may show an equalisation tendency.

The radical critiques seriously challenge the validity of the neo-classical factor price equalisation theorem of international trade. The unequal exchange thesis bears a close affinity to the Singer-Prebisch thesis of secular decline in the terms of trade (i. e. ratio of prices of primary exports of developing economies to manufactured imports from developed economies) (Singer 1949, Prebisch, 1959). According to this thesis, the deterioration in the terms of trade deprives the low wage economies of the benefits of technological progress.

The way out of the dependencia impasse that is forged by the neo-colonial aid-trade operations of the centre lies in 'autocentric development' or a 'delinking of peripheral economies from the international capitalist economy' (Amin 1976).

This new meaning of development has been viewed as the cornerstone of a development pattern based on 'collective self-reliance' (CSR), or a new division of labour amongst developing economies. "It implies that the main way in which ... (donors) ... could improve the world is not through increasing aid (though this is still needed in some countries), or even by channelling it to people in greatest social need, but by curbing the power of transnational corporations and limiting cultural pressures of which they are a part." (Seers 1977, p. 7). 'Autocentric development' or 'collective self reliance' implies that developing economies should co-operate amongst themselves in trade and technology to develop according to their own cultural norms and not according to Western consumerist and urban industrial models. Trade would be based on selective co-operation and industrial production would be geared to the satisfaction of the basic needs of the masses rather than the demand for luxuries by the small but powerful elites in developing economies.

4. A REVIEW OF THE STRUCTURE AND PERFORMANCE OF AUSTRALIAN AID

Before examining the response of Australian aid strategy to the changing perceptions of the development paradigm, it is pertinent to review briefly the structure and performance of Australian aid to developing economies. Recent changes in Australian aid programming and their significance will also be appraised.

An analysis of aid statistics over the past 15 years indicates that although Australia's aid (measured in current prices) grew at 11 % per annum, when adjusted for an inflation rate of 7 %, the aid growth rate barely kept pace with the growth rate of GNP (about 4 % per annum during the period 1964-1978) (See Table I).

Australian aid grew both in volume and by expanding its geographical coverage. The aid disbursements to Papua New Guinea (PNG) gradually dwindled as its decolonisation and independence gathered momentum. Simultaneously the trends to multilateralise aid with the growing internationalist stance pursued by Australia in the 1970s was reflected in increasing commitments of aid to various multilateral agencies such as the UN (e.g. WHO, UNDP, FAO), the World Bank (e.g. IBRD/IDA) and the Asian Development Bank (e.g. ADB/ADF). In 1964, the Papua New Guinea aid allocation accounted for nearly 70 % of the total Australian aid budget; but by 1978 it had been phased down to 51 % and the corresponding figures for the multilateral aid component in the total Australian aid budget were 6 % and 15 %, respectively. Nearly 80 % of

Table I: The Changing Structure of Australian Aid

Year	Percentage of Total Aid			Total Aid A\$ (million)	ODA GNP
	Multi- lateral	Bi- lateral	Papua New Guinea		
1964-65	5.8	24.6	69.6	97.9	(1966-68 average)
1965-66	7.8	23.5	68.7	109.6	0.58
1966-67	10.5	22.4	67.1	125.7	
1967-68	10.4	34.2	65.4	141.3	
1968-69	8.8	24.7	66.5	155.7	
1969-70	7.1	23.6	69.3	167.7	0.61
1970-71	6.8	24.0	69.2	180.6	0.53
1971-72	6.5	25.4	68.1	200.5	0.59
1972-73	6.6	27.4	66.0	218.8	0.44
1973-74	6.9	25.2	67.9	260.8	0.55
1974-75	15.1	33.4	51.5	328.1	0.60
1975-76	12.5	26.4	61.1	346.9	0.41
1976-77	15.8	24.4	59.8	378.3	0.45
1977-78	18.9	28.6	52.5	418.5	
1978-79	15.0	33.7	51.3	454.9	

Sources: 1978-79 Budget Paper No. 8, Australia's Official Development Assistance, 1978-79.

1978 Review, Development Co-operation, OECD.

Australian aid in 1977 was given as bilateral aid. Half of this figure was apportioned to Papua New Guinea as untied budgetary support. The balance was allocated to other aid recipients, mainly in tied form. The tying of aid reduces the real benefits to recipients by as much as 20 % (Karunaratne 1979b). Australian aid was tied to a two-thirds procurement in the high cost Australian market. Of the total aid budget of \$A 378 million disbursed in 1977 to over 30 countries to undertake 400 projects, approximately 76 % was bilateral aid, 12 % was for technical assistance and training, and 6 % was allocated for food aid and emergency relief, while the remaining 6 % was for miscellaneous purposes (ADAB, DAC Memorandum 1977).

Australia's aid performance, as measured by the UN Official Development Assistance (ODA):GNP target of 0.7 %, to which Australia is publicly committed, is declining. In the mid-1960s Australia achieved an ODA:GNP ratio of 0.58 % and in 1978 it had plummeted to 0.45 % (see Table I). During the same year, other middle power donors of the DAC, particularly Sweden, the Nether-

lands and Norway, surpassed the UN target by achieving ODA:GNP ratios of 0.99 %, 0.85 % and 0.82 %, respectively.

In terms of the grant equivalence performance criterion, between 1976 and 1978, Australia slipped from its 4th rank in the DAC donor league of seventeen countries, to the median rank of 8th-9th. The Australian total aid budget of \$ US 14 bilion, in fact, contributed only one-tenth of the contribution of that much-maligned donor, the United States.

5. RECENT INNOVATIONS IN AUSTRALIAN AID PRACTICE AND THEIR SIGNIFICANCE

Australian aid volume did show a secular increase throughout the 1960s and 1970s, and the geographical coverage of aid widened. Also, the obnoxious practice of aid tying showed signs of relaxation with the growing multilateralisation of aid. However, even before the onset of recession and stagflation in 1974, Australian aid weariness began to reveal itself in the ODA:GNP and grant-equivalence criteria.

During recent years, several changes in Australian aid practice have contributed to the marginal improvement in the quality of Australian aid:

- (i) In pursuance of the DAC guidelines on local cost financing (OECD Review 1977, p. 151), the Australian Development Assistance Bureau (ADAB) has agreed to encourage local cost financing by aid recipients. It has informed ASEAN countries that it would permit up to 50 % local cost financing of approved projects.
- (ii) Forward commitments of aid, on a multi-year basis, were announced for Papua New Guinea, the ASEAN countries and the Pacific islands in order to facilitate aid-based planning.
- (iii) Liberalisation of the 2/3rds procurement tying of aid was also announced.
- (iv) Food aid commitments reached 400,000 tonnes in 1979, thus doubling the level committed in 1976. Nearly 20 % of this aid was channelled through the World Food Programme (WFP).
- (v) Australia also subscribed \$A 2 million to implement nutritional impact programmes amongst vulnerable groups in poor countries.
- (vi) An Education Advisory Board was established in 1979 to advise ADAB on training schemes that are compatible with development priorities in recipient countries (Commonwealth Record, 1979).
- (vii) Allocation of aid to Non-Government Organisations (NGOs) was stepped up to reach the figure of nearly \$A 1 million.
- (viii) Australian experts were sent to improve aid administration in recipient countries.

(ix) Deliberate attempts were made to divert aid from large-scale infra-structural projects to small-scale rural agro-based projects.

These changes undoubtedly improved the quality of Australian aid. However, these changes had only a marginal impact on gearing Australia's aid strategy to the principles of the new paradigm. Australia's aid rhetoric, however, began to catch up with the spirit of the new paradigm, although with much reservation and caution (ADAA, Selected Speeches, 1976 to 1978, p.16). The Minister of Foreign Affairs said in 1978: "We are all agreed that poverty is the central concern in our region. The 'basic needs' approach attempts to face that concern, not wholly, not exclusively, but as a focus for development assistance. 'Basic needs' demand attention on human grounds, and their amelioration would clear the way for structural change that firms the foundation of development." (ADAA, Selected Speeches, 1976 to 1978, p.26).

During the Whitlam era, foreign aid emerged as an important priority. In order to co-ordinate aid programming which was shared by many departments (Foreign Affairs, Treasury, External Territories, Trade and Education), a statutory body, the Australian Development Assistance Agency (ADAA), was established in 1974. The Agency was responsible for the co-ordination of all Australia's bilateral and multilateral aid. The Agency attempted to emphasise the developmental role of aid in contrast to the diplomatic and the commercial role of aid. This new approach was severely censored by the Departments of Foreign Affairs and Trade. A bureaucratic struggle occurred between ADAA, seeking its own identity and pushing the humanitarian motivation of aid on the one hand, and government departments seeking to promote their own departmental interests on the other. The struggle 'strangled the Agency at birth' and culminated in the downgrading of the Agency and its re-attachment as an appendage of the Foreign Affairs Department in 1977. A post-mortem on the bureaucratic pettifoggery that led to ADAA's demise indicates that ADAA was "effectively abolished without demonstrating any savings in costs" (Viviani and Wilenski 1978, p.29). However, this symbolised the downgrading of the developmental role of aid and the ascendancy under the Fraser government of the role of aid as an instrument of trade promotion and foreign policy.

6. AUSTRALIA'S CURRENT AID PRACTICE AND ITS DIVERGENCE FROM THE TENETS OF THE NEEDS PARADIGM

It is hard to accept that the scaling down of an independent agency (ADAA), established to coordinate and give aid strategy a more dynamic developmental stance, into a mere bureau (ADAB) directed by the Foreign Affairs Department, does not constitute a weakening of the government's resolve on aid for

developing economies. It is a fact, that Australia has been in the throes of an economic recession and worsening stagflation and that corrective economic policies are a top priority. But it needs to be appreciated that the effect of the international recession on developing economies is much worse, which strengthens the case for more foreign aid from rich donors like Australia. However, the ADAB episode demonstrated that in a critical hour Australia chose to emphasise the political leverage and commercial gains that accompany aid. This retrogression pervading Australian aid strategy needs further analysis and the causal mechanisms need identification. Broadly, these recessive factors operating in Australia's aid practice and strategy can be identified as follows:

- (i) the hangover from the derelict trickle-down paradigm that influenced the genesis of Australia's aid programme;
- (ii) the imperviousness to recent changes in the development paradigm and particularly to the dependencia critiques of development;
- (iii) the perpetuation of distortions caused by political and commercial motivations in the inter-country allocation of aid;
- (iv) the two phenomena of 'demand pull' and 'population push'.

These factors are jointly responsible for a serious deflection of Australian aid from the tenets of the needs paradigm. Firstly, the growth maximisation focus of the trickle-down paradigm exerted considerable influence on the moulding of the composition and direction of Australian aid right from the inception of the aid programme. The growth emphasis placed a heavy premium on neo-classical efficiency rather than on equity considerations. The prospects of efficient performance or maximal growth impact of aid-financed projects was a qualifying criterion for the receipt of Australian aid. Bilateral project aid easily lent itself to the scrutiny and the monitoring of its efficient performance as specified by the neo-classical growth paradigm. Australian aid donations consequently became excessively bilateral and project tied: Up to date, the preponderance of bilateral project aid could be attributed to guidelines that remain from the now defunct trickle-down development paradigm. Relatively rich developing economies could show better performance prospects for project aid by demonstrating higher commercial and even social profitability for comparable projects than poorer developing economies. Bilateral project aid, based on efficiency criteria fashioned by the old development paradigm, therefore biased aid allocation in favour of the richer developing economies. Even on balance of payments, trade, and savings gaps criteria, the bottlenecks hampering development in the richer economies appeared to be more critical than similar gaps in poorer countries. Therefore, more bilateral project aid was channelled to the richer countries than to the more needy poorer countries. The latter, with their weak absorptive capacity, ill defined projects and plans, showed very poor ratings on the basis of their dismal growth impacts and rates of return on projects. The insistence on neo-classical efficiency therefore continues to bedevil Australian aid strategy as is manifest in the bilateralisation

and project tying of the bulk of Australian aid. All this runs counter to the tenets of the basic needs paradigm which emphasises equity or distributional aspects of aid over efficiency.

Secondly, Australia's regional concentration of aid on the basis of spurious neighbourhood affinities (ADAB, Selected Speeches, 1976-78) is open to question. Australian foreign policy constantly reminds the world of its Eurocentrism, and in fact Australian aid strategy constantly pays lip service to the European strategy, particularly after Australia joined the DAC of the OECD in 1966. This, of course, does not imply that the current European aid strategy today is incompatible with the fashionable development paradigm. However, it may mean that there is a time-lag before Australia catches up with European thinking on aid allocation and programming practices. The much-vaunted Australian neighbourhood ties in aid policy could be interpreted in the context of *dependencia* theory as a surreptitious attempt to integrate the Pacific island economies to the Australian capitalist system by using the aid carrot. Such neo-colonial aspirations would, however, be self-defeating in the long-run as there is a growing perception amongst developing economies of the harmful effects of *dependencia* or centre-periphery relationship. A fruitful aid strategy needs to be responsive to the *dependencia* critique of development paradigms. Whether such critiques have permeated Australian aid thinking and practice is open to doubt, as the aid operation for Papua New Guinea vividly illustrates.

Currently, Papua New Guinea accounts for more than 50 % of the total Australian aid budget. In fact, Papua New Guinea, with a per capita ODA of over A\$ 82.28 compared with a per capita figure of 0.38 cents for India, is pre-eminent as the world's highest recipient of ODA per capita from any single door. However, when viewed from the neo-colonial stranglehold that Australia exerts over Papua New Guinea even after independence, the large dosage of aid has a *dependencia* story to narrate. Nearly 50 % of Australian aid goes directly for current expenditure or budgetary support and much of this eventually leaks back to Australia through salaries and pensions of Australians in the Papua New Guinea bureaucracy. Australian private investment accounts for 70 % of Papua New Guinea total investment, and a handful of Australian multinational corporations control its industry, plantation agriculture and critical service sectors. Nearly 70 % of the internal trade of Papua New Guinea is in Australian hands. Furthermore, it cannot be a sheer coincidence that "Papua New Guinea has one of the highest propensities to import of any country in the world" (Baldwin 1977, p. 113), and that nearly 50 % of its total imports originate from Australia.

Finally, a serious distortion of Australia's aid practice is manifest in its inter-country allocation of the aid budget. This allocation is very much related to the historical and geo-political kinks in Australian aid strategy that were

Table II: Economic Data on Australian Aid Recipients

Country	(1) Population (1976) (millions) (% of Total)	(2) GNP Per capita (1976) (\$ US) (% of Total GNP)	(3) Aid (1977/8) (\$A million) (% Total Aid)
1. Indonesia	130.9	280	28,274
2. Malaysia	12.6	830	5,902
3. Philippines	43.3	420	6,453
4. Thailand	43.0	380	9,723
5. Singapore	2.3	2,580	1,067
ASEAN	232.1 (18.7%)	898 (25.8%)	51,509 (15.2%)
6. S. Korea	35.9	760	0,460
7. Hong Kong	4.4	2,230	0,023
8. Taiwan	16.3	1,050	0,0001
9. Vietnam	49.2	160	4,394
EAST-ASIA	105.8 (8.5%)	1,035 (29.6%)	4,877 (1.4%)
10. Bangladesh	80.4	90	11,732
11. India	620.4	140	2,388
12. Pakistan	71.3	180	3,251
13. Sri Lanka	13.8	190	4,659
14. Nepal	12.8	110	0,703
15. Burma	30.8	120	3,388
SOUTH-ASIA	829.5 (66.8%)	138.3 (4.8%)	26,1210 (7.7%)
16. Papua New Guinea	2,908	450	233,461
17. Cook Islands	0.018	720	0,229
18. Fiji	0.592	1,150	6,199
19. Gilbert Island	0.054	720	1,120
20. New Hebrides	0.100	480	0,809
21. Nige	0.003	230	0,090
22. Solomon Island	0.206	250	1,710
23. Tonga	0.090	350	2,104
24. W. Samoa	0.152	350	3,801
OCEANIA	4,123 (0.3%)	522.2 (27.0%)	249,523 (73.9%)
25. Ethiopia	28.7	100	0,082
26. Ghana	10.3	370	1,486
27. Kenya	13.8	250	1,516
28. Mauritius	0.9	680	0,628
29. Tanzania	15.9	180	2,323
30. Jordan	2.8	650	0,006
AFRICA + MID EAST	71.59 (5.7%)	371.6 (12.8%)	6,041 (1.8%)

Notes on Table II:

Column (1) Source: 1978 World Bank Atlas.

Column (2) Source: 1978 World Bank Atlas.

Column (3) Source: Australian Development Assistance Agency (1979): Bilateral Aid Program 1978-79. Australian Government Publishing House, Canberra 1979.

Column (4) Source: Australian Bureau of Statistics (1978): Australian Exports Country by Commodity 1976/77.

Column (5) Sources: Australian Bureau of Statistics (1978): Australian Exports Country by Commodity 1976/77 and Australian Exports Country by Commodity 1976/77.

(4) Exports (1976) (\$A million)	(5) Balance of Trade (Exports -Imports 1976) (\$A millions)	(6) Physical Quality of Life (PQLI)	(7) Dependen- cia Dummy (D _{1i})	(8) Lever- age Factor (% Austr. Aid/ DAC Aid Tot.)	(9) Dum- my (D _{2i})
180.5	130.3	50	1	3.89	1
224.3	110.8	65	1	7.28	0
118.5	74.7	75	1	3.93	1
65.1	37.6	81	1	5.50	1
183.5	-12.8	91	1	8.80	0
				5.88	
189.4	93.6	83	0	0.27	1
189.2	-65.1	89	0	0.31	0
134.2	-78.6	91	0	0.000	1
42.3	42.0	54	1	2.53	1
				1.03	
16.9	6.3	32	1	2.09	1
201.3	130.7	41	0	0.67	0
0.15	0.05	35	1	1.04	0
21.4	4.0	86	1	1.66	0
2.4	2.1	25	0	0.75	0
23.11	16.3	56	1	3.46	0
				9.52	
189.9	109.6	41	1	95.66	1
0.111	0.094	65	1	1.16	1
68.0	58.5	68	1	4.70	1
6.1	-4.0	65	0	2.61	1
8.4	8.3	62	0	0.56	1
0.013	0.007	65	1	10.64	1
8.7	8.4	63	1	5.34	1
2.7	2.6	72	1	10.64	1
4.1	3.9	70	1	18.20	1
				16.55	
9.1	8.9	35	0	0.01	1
0.7	-12.3	43	0	0.06	0
11.6	6.8	36	0	0.09	0
14.0	13.2	70	1	3.60	0
2.3	5.3	42	0	0.23	0
5.3	5.3	34	0	0.001	1
				0.79	

Column (6) Sources: UN Population by Sex for Regions and Countries 1950-2000, as assessed in 1973 Medium Variant. ESA/P/WP 60, 25 Febr. 1976; World Populations Prospects 1970-2000 as assessed in 1973, ESA/P/WP 53, 10 March 1975; 1977 Statistical Year Book, UN.

Column (7) Source: Column (8). If leverage factor exceeds 1 % dependencia dummy takes the value 1, otherwise it takes the value 0.

Column (8) Source: Column (3) ADA and 1977 Review. Development Co-operation. OECD Paris, 1978.

Column (9) Source: Author's subjective assessment based on Commonwealth Record and Foreign Affairs (various issues).

identified earlier. It is quite apparent that the lion's share of Australia's aid budget is allocated to the richer developing economies rather than to the poorer developing economies that qualify more for aid according to the new paradigm. This aberration is thrown into clear relief when it is estimated that 90 % of the aid budget of 1977 for instance was bestowed on relatively rich Developing Asia (i. e. the eight recipients of ASEAN and East Asia) and Oceania, which generated 82 % of the total GNP of all Australian aid recipients (see Table II). The present aid strategy emphasises that aid serves Australian commercial and foreign policy. The richer countries are undoubtedly more important for trade, private foreign investment and in international politics than the poorer countries. This abuse of aid for commercial and political leverage is reprimanded and challenged by the new paradigm of development. Besides, the use of aid as leverage ignores the other structural adjustment issues that Australia needs to undertake in order to foster healthy commercial ties with these richer developing economies. Another perverse feature of Australia's inter-country aid allocation is its aversion to populous countries. Less aid is given to populous than to sparsely populated countries. The implication is that poorer people in large countries are regarded as less deserving than poorer people in smaller developing economies. This crass inequity, which is not condoned by the new paradigm, is spotlighted by the fact that only 0.3 % of the total aid recipient population living in Oceania receive nearly 75 % of Australia's total aid budget. Nearly 70 % of the aid recipient population living in South Asia get a niggardly 8 % (see Table II).

It needs to be noted that the above mentioned two retrogressive factors in the inter-country allocation of Australian aid, which we can designate as the 'income pull' and the 'population push' on aid budgeting, have very grave distortionary implications for Australia's current aid practice and strategy. Therefore, a more incisive and objective analysis of these features of Australia's aid strategy is necessary to provide information for its rectification.

7. MODELING OF AUSTRALIA'S CURRENT AID PRACTICE

The behavioural hypotheses postulated regarding Australia's aid practice was empirically validated using regression analysis. Several alternatives were explored using linear, double log-linear functional forms and quadratic transformations of population, GNP and per capita GNP variables (see Appendix I). The specification of independent variables is critical for the realistic exposition of Australian aid practice.

The preferred model for capturing current Australian aid practice is the following:

$$[\text{Aid}_i] = \alpha_0 + \alpha_1 [\text{Pop}_i] + \alpha_2 [\text{Pop}_i]^2 + \alpha_3 [\text{GNP}_i] + \alpha_4 [\text{GNP}_i]^2 \\ + \alpha_5 [\text{Exports}_i] + \alpha_6 [\text{PQLI}_i] + \alpha_7 [\text{Dummy}_i] + \varepsilon_i$$

- [Aid_i] : Australian Aid to ith country expressed in \$A (1976).
 [Pop_i] : Population of ith recipient country measured in millions (1976).
 [GNP_i] : Gross National Product of ith country measured in \$US billions (1976).
 [Exports_i] : Australian Exports in \$A millions (1976).
 [PQLI_i] : Physical Quality of Life Index (a weighted average of life expectancy, literacy and infant mortality expressed with Australia as base = 100).
 [Dummy_i] : Dummy variable taking the value 1 if the leverage factor is greater than 1 %, and 0 otherwise. The leverage factor is the percentage of Australian aid in the total DAC aid received by any recipient country.
 ε_i : Random disturbance term.

The expected sign associated with each variable is indicated in parenthesis before the regression parameters or α s.

- (+) α₀ : Aid threshold or a constant denoting the minimum aid given to a country because of its nationhood status. The expected sign is positive.
 (+) α₁ : Per capita aid nexus. Expected sign is positive, implying that aid allocation increases as population increases.
 (-) α₂ : The demographic aversion or 'population push' effect on aid indicating decreasing marginal importance of increasing population after reaching a certain large population. Expected sign of this large population size effect denoted by the quadratic term is negative.
 (-) α₃ : The income aid nexus. The amount of aid would decrease with the relative richness of the country. The expected sign is negative.
 (+) α₄ : The 'income pull' effect on aid or the relatively rich countries' attracting more than their fair share of aid after a certain point by virtue of their economic potential. Expected sign is positive.
 (+) α₅ : The aid, Australian exports to recipient, connection. The expected sign is positive.
 (-) α₆ : The aid and quality of life nexus. Less aid would be channelled to recipients exhibiting higher quality of life environments. The expected sign is negative.
 (+) α₇ : The political or dependence effect indicating that if Australia contributes more than 1 % of the recipients total aid it can exert a certain leverage. The expected sign is positive.

8. EMPIRICAL VALIDATION OF THE REGRESSION MODEL ON AUSTRALIAN AID BEHAVIOUR

Cross-country data for a sample of 30 aid recipients on each of the behavioural characteristics critical in Australia's current aid practice was assembled (see Table II). This data accounted for over 80 % of Australia's aid budget. However, Papua New Guinea accounted for nearly half of Australia's aid budget and this deviant observation had to be eliminated in order to get a normal picture of Australia's aid practice.

The empirical validation of the preferred hypothesis, based on a sample of 29 countries accounting for approximately 30 % of Australia's aid budget, yielded the following results (see Equation V, Appendix I).

$$\begin{aligned}
 [\text{Aid}_i] = & -0.0692 + 0.1943 [\text{Pop}_i] - 0.0006 [\text{Pop}_i]^2 - 0.7784 [\text{GNP}_i] \\
 & (-0.03) \quad (3.15)^{***} \quad (-4.98)^{***} \quad (-2.50)^* \\
 & + 0.0249 [\text{GNP}_i]^2 + 0.0244 [\text{Exports}_i] - 0.0079 [\text{PQLI}_i] \\
 & (3.85)^{***} \quad (1.67) \quad (-0.15) \quad R^2 = 0.83 \\
 & + 2.6853 [\text{Dummy}_i] \quad \bar{R}^2 = 0.77 \\
 & (1.73) \quad F_{7,21} = 14.61^{***}
 \end{aligned}$$

The above functional fit explains nearly 83 % of inter-recipient allocation of Australian aid donations as a function of population, the 'population push' effect, income, the 'income pull' effect, exports, quality of life and political factors. The functional fit is satisfactory and in fact is the best amongst all models fitted to the data. The corrected goodness of fit measure, \bar{R}^2 , shows that nearly 77 % of variation is accounted for by the explanatory variables included in the model above. The regression parameters all exhibit the expected signs except for the threshold effect as proxied by the constant term. Although the threshold effect yielded a negative magnitude, it is not statistically significant. Nevertheless, the poor showing of the threshold constant indicates that the scale or volume of Australian aid (3 % of the total DAC aid budget) is barely sufficient for the volume of Australian aid given to make a worthwhile impression on the development problems of all the 29 aid recipients included in the above sample. The population aid nexus and the GNP aid nexus were statistically highly significant and well behaved, indicating that Australian aid allocation amongst recipients up to a point increased with population and decreased with rise of the dollar value of GNP. Exports and the leverage effect of aid (or political motivation of Australian aid) were also positive, but were statistically significant only at the 10 % level. The most noteworthy feature of Australian inter-recipient aid programming was the high significance of the perverse population and income size effects shown by the quadratic terms.

The statistical significance of these quadratic terms substantiates the contention that Australian aid programming is distorted by the perverse influence of 'population push' and 'income pull'. Thus, it is thrown seriously out of kilter from the desiderata of the dominant development paradigms and the dependencia critiques. A reformulation of Australian aid strategy to rectify these distortions is imperative so that Australian aid dollars do not in the long-run purchase only the backlash of aid recipients and other more perceptive aid donors. The Australian aid strategy divergence from the accepted development paradigms, however, is far from exceptional: "aid allocations for a variety of other donors and for a variety of time periods show surprisingly consistent biases against poorer recipients" (Isenman 1976, p. 637).

9. CONCLUDING REMARKS

The foregoing analysis reveals that the current Australian aid strategy is hamstrung by the legacy of outmoded development theories. The largesse Australian aid programmers display towards the more affluent among the developing economies is clearly motivated by commercial and political gains. The short and sterile existence of ADDA symbolised an abortive attempt to reinforce developmental objectives of aid rather than other baser, non-humanitarian motives for aid. Parsimony in the allocation of aid to the poorer and more populous South Asian countries further corroborates the divergence of the current Australian aid practice from the ideals of the accepted needs paradigm. Furthermore, Australian aid strategy has been insensitive to allegations of neo-colonial and dependencia goals, particularly in Papua New Guinea and Oceania. Whether Australian aid to these Pacific islands arises from a genuine desire to foster neighbourhood ties or in order to buttress Australian hegemonic ambitions in the region is a moot question. Recent political pronouncements clearly acknowledge the need to eschew some of these perverse characteristics that tarnish Australia's image as a dynamic and innovative aid donor. However, the reality of aid practice has continued to languish behind the easy pronouncements of political rhetoric on aid.

A reformulation of aid strategy, so as to take cognisance of the ideals of the needs paradigm to which Australia is publicly committed, requires a radical departure from several features that denigrate Australian aid strategy at present. Our regression model empirically demonstrated that Australia's aid disbursements are attracted or pulled by the relatively rich countries of Developing Asia and Oceania. This clearly indicates that Australian aid is readily available to countries that are not eligible on the basis of the needs paradigm. Besides, it suggests that Australian aid decision makers

have used aid to postpone the demands for structural change in the Australian economy to face rationally the challenge from the competitive pressures from Developing Asia. In this context, the aphorism 'trade not aid' is the relevant policy prescription. Australia should whittle down its high tariff and non-tariff barriers against labour-intensive imports from Asia. For instance, textiles, footwear, and clothing items are 80 % to 300 % dearer when produced in Australia than when imported from developing Asia (Crawford 1979, p.4.3). Unless Australia acts quickly to capture the export prospects in the dynamic markets of Developing Asia by specialising in those resource-based, or skill and technology-based products in which it has a comparative advantage, it will lose out to other competitors.

Up to now, there has been hostile reaction to any suggestions for a geographical restructuring of Australian aid allocation. However, in the context of the needs paradigm, it is imperative that the populous and poverty-ridden South Asian recipients should get a larger slice of the aid cake than they have been given so far. The 'population push' effect needs to be reversed so that a reformulated Australian aid strategy can be more attuned to the needs paradigm.

It is futile to anticipate a significant impact from Australian aid if it continues to exhibit the flagging resolve to keep up its contribution to the DAC donor budget. The decline in Australia's ODA:GNP ratio since the mid-1960s is also inauspicious from the perspective of the needs paradigm. The volume of Australian aid must grow by almost 50 % if it is to reach the UN target (0.7 % of ODA), to which Australia is internationally committed.

Australian bilateral project aid has in the past concentrated heavily on large-scale, capital-intensive, urban-oriented projects, such as airports, freeways, bridges and buildings. The needs paradigm requires that small-scale, labour-intensive, rural agro-based projects should be the new focus of attention for aid. Only recently Australian aid strategy has shown a marginal response to these new requirements of the needs approach. Other healthy indications of improvement in the quality of Australian aid appear in the form of multi-year programming, untying, and local cost financing. These initiatives need to be pursued with vigour if they are to contribute to a major improvement in Australian aid strategy.

All the suggested reforms of the current Australian aid strategy must converge if Australian aid is to live up to the expectations of the new perceptions of development. Only a new strategy of aid incorporating the spirit of the new development paradigm will in the long-run achieve the over-riding humanitarian goals of aid and ensure for Australia the permanent good will of aid recipients.

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APPENDIX I

Explanatory notes on regressions

- $n = 29$ Sample size of 29 countries excluding Papua New Guinea.
 $n = 30$ Sample size of 30 countries including Papua New Guinea.
 $[Aid_i]$ = Australian Aid disbursed to i th country in Australian \$ millions in 1976.
 $[GNP_i]$ = Gross National Product in billions of US\$ (1976).
 $[GNP_i]^2$ = Quadratic term of Gross National Product.
 $[Pop_i]$ = Population of i th country in millions in 1976.
 $[Pop_i]^2$ = Quadratic population of i th country indicating large country effect.
 $\left[\frac{GNP_i}{Pop_i}\right]$ = Per capita Income in US\$.
 $\left[\frac{GNP_i}{Pop_i}\right]^2$ = Quadratic per capita of i th country indicating large country effect
 $[Trade_i]$ = Balance of Trade (Exports-Imports) with Australia in Australian \$ million in 1976.
 $[Exports_i]$ = Exports from Australia in \$ million in 1976.
 $[PQLI_i]$ = Physical Quality of Life Index.
where $PQLI_i = \frac{1}{3} \left[\begin{array}{l} \text{Literacy} \\ \text{per mille} \\ \text{indexed} \\ \text{with} \\ \text{Australia} \\ = 100 \end{array} \right] + \left[\begin{array}{l} \text{Life Expect-} \\ \text{ancy in years} \\ \text{indexed} \\ \text{Australia} \\ = 100 \end{array} \right] + \left[\begin{array}{l} (1 - \frac{\text{Infant Mortality}}{165}) \\ \text{Indexed with Australia} \\ = 100 \end{array} \right]$
 $[D_{1i}]$ = Dependencia Dummy. If leverage ratio exceeds 1 % D_1 takes the value 1 otherwise 0.
 $[L_i]$ = Leverage Factor [i. e. Australian Aid \div Total DAC Aid].
 $[D_{2i}]$ = Political Dummy.

(t-statistic) = Regression coefficient divided by standard error.

* = Significant at 5 % level.

** = Significant at 10 % level.

APPENDIX II

Regression equations

[I]	$[Aid_i]$	$= 0.1524 + 0.1743 [Pop_i] - 0.0027 [Pop_i]^2$	$R^2 = 0.62$
	(t-statistic)	(0.18) (6.55)** (-6.39)**	$\bar{R}^2 = 0.59$
	(n = 29)		$F_{2,26} = 21.47^{**}$
[II]	$[Aid_i]$	$= 0.6693 + 0.5276 [GNP_i] - 0.0056 [GNP_i]^2$	$R^2 = 0.33$
	(t-statistic)	(0.56) (3.55)** (3.09)**	$\bar{R}^2 = 0.28$
	(n = 29)		$F_{2,26} = 6.52^{**}$
[III]	$[Aid_i]$	$= 1.4829 + 0.1801 [Pop_i] - 0.0006 [Pop_i]^2$	$R^2 = 0.74$
	(t-statistic)	(1.71) (5.31)** (-5.51)**	$\bar{R}^2 = 0.70$
	(n = 29)	$-0.5600 [GNP_i] + 0.2314 [GNP_i]^2$	$F = 17.72^{**}$
		(-2.65)** (3.37)**	
[IV]	$[Aid_i]$	$= -3.2343 + 0.2345 [Pop_i] - 0.0007 [Pop_i]^2$	$R^2 = 0.80$
	(t-statistic)	(-1.29) (5.14)** (-5.01)**	$\bar{R}^2 = 0.74$
	(n = 29)	$-0.7794 [GNP_i] + 0.0224 [GNP_i]^2 + 0.0287 [Trade_i]$	
		(-3.14)** (3.08)** (1.78)	
		$+ 0.0848 [PQLI_i] - 0.8534 [D_{2i}]$	$F_{7,21} = 12.65^{**}$
		(2.10) (-0.68)	
[V]	$[Aid_i]$	$= -0.0692 + 0.1943 [Pop_i] - 0.0006 [Pop_i]^2$	$R^2 = 0.83$
	(t-statistic)	(-0.03) (3.15)** (-4.98)**	$\bar{R}^2 = 0.77$
	(n = 29)	$-0.7784 [GNP_i] + 0.0249 [GNP_i]^2$	$F_{7,21} = 14.61^{**}$
		(-2.50)** (3.85)**	
		$+ 0.0244 [Exports_i] - 0.0079 [PQLI_i]$	
		(1.67) (-0.15)	
		$+ 2.6853 [D_{1i}]$	
		(1.73)	

Regression Equations (contd.)

[VI] [Aid _i] (t-statistic) (n = 29)	= -1.4749 + 0.2472 [Pop _i] - 0.0007 [Pop _i] ² (-0.61) (5.27)** (-5.95)**	R ² = 0.83 R̄ ² = 0.77 F _{7,21} = 14.28**
	-0.8890 [GNP _i] + 0.0246 [GNP _i] ² (-3.08)** (3.74)**	
	+0.0237 [Exports _i] + 0.0260 [PQLI _i] (1.61) (0.61)	
	+ 0.2251 [D _{1i}] (1.60)	
[VII] [Aid _i] (t-statistic) (n = 29)	= 0.1524 + 0.1743 [Pop _i] - 0.0003 [Pop _i] ² (0.18) (6.55)** (-6.39)**	R ² = 0.62 R̄ ² = 0.59 F _{2,26} = 21.48**
[VIII] [Aid _i] (t-statistic) (n = 29)	= 5.1894 - 0.0039 [$\frac{GNP_i}{Pop_i}$] + 0.0001 [$\frac{GNP_i}{Pop_i}$] ² (2.37)* (6.26)** (-6.29)**	R ² = 0.04 F _{2,26} = 0.59
[IX] [Aid _i] (t-statistic) (n = 29)	= -1.77 + 0.1875 [Pop _i] - 0.0029 [Pop _i] ² (-0.97) (6.36)** (6.29)**	R ² = 0.64 R̄ ² = 0.59 F _{4,24} = 10.88**
	+ 0.0050 [$\frac{GNP_i}{Pop_i}$] - 0.0001 [$\frac{GNP_i}{Pop_i}$] ² (1.91) (-1.08)	
[X] [Aid _i] (t-statistic) (n = 29)	= -2.79 + 0.1723 [Pop _i] - 0.0003 [Pop _i] ² (-0.78) (3.69)** (-4.13)**	R ² = 0.67 R̄ ² = 0.56 F _{7,21} = 6.04**
	+ 0.0019 [$\frac{GNP_i}{Pop_i}$] - 0.0001 [$\frac{GNP_i}{Pop_i}$] ² (0.34) (-0.44)	
	+ 0.0073 [Exports _i] + 0.0192 [QPLI _i] (0.35) (0.36)	
	+ 0.1541 [D _{1i}] (0.98)	
[XI] (Includes PNG) [Aid _i] (t-statistic) (n = 30)	= 16.1562 + 0.0759 [Pop _i] - 0.0009 [Pop _i] ² (1.29) (0.15) (-0.54)	R ² = 0.02 R̄ ² = -0.14 F _{4,25} = 0.09
	- 1.7989 [GNP _i] + 0.0583 [GNP _i] ² (-0.5729) (0.5720)	

Regression equations (contd.)

[XII] (Includes PNG)

$$\begin{aligned} \ln[Aid_i] &= 34.2531 - 0.5596 [Pop_i] + 0.0014 [Pop_i]^2 & R^2 &= 0.28 \\ \text{(t-statistic)} & (0.96) \quad (-0.87) \quad (0.7767) & \bar{R}^2 &= 0.06 \\ (n = 30) & & F_{7,22} &= 1.25 \\ & + 1.5570 [GNP_i] - 0.0541 [GNP_i]^2 \\ & (0.44) \quad (-0.52) \\ & 0.4893 [Trade_i] - 0.4836 [PQLI_i] \\ & (2.30) \quad (-0.84) \\ & + 4.8911 [Dummy_i] \\ & (0.27) \end{aligned}$$

[XIII] (LOG-VERSION)

$$\begin{aligned} \ln[Aid_i] &= 5.3114 + 0.1315 \ln[Pop_i] - 0.9574 \ln\left[\frac{GNP_i}{Pop_i}\right] & R^2 &= 0.16 \\ \text{(t-statistic)} & (1.53) \quad (0.77) \quad (-1.69) & \bar{R}^2 &= 0.09 \\ (n = 29) & & F_{2,26} &= 2.45 \end{aligned}$$

[XIV] (LOG-VERSION)

$$\begin{aligned} \ln[Aid_i] &= -6.23 - 0.0150 \ln[Pop_i] - 0.0870 \ln[Pop_i]^2 & R^2 &= 0.25 \\ & (0.28) \quad \quad \quad (-1.05) & F_{7,21} &= 0.98 \\ & 4.0648 \ln\left[\frac{GNP_i}{Pop_i}\right] - 0.5227 \ln\left[\frac{GNP_i}{Pop_i}\right]^2 \\ & + 0.0162 \ln[Exports_i] + 0.0059 \ln[PQLI_i] \\ & + 0.6423 \ln[Dummy_i] \end{aligned}$$