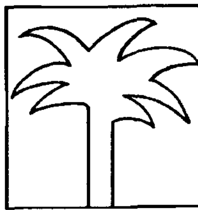


Set in concrete? The proposed cement clinker plant in Papua New Guinea

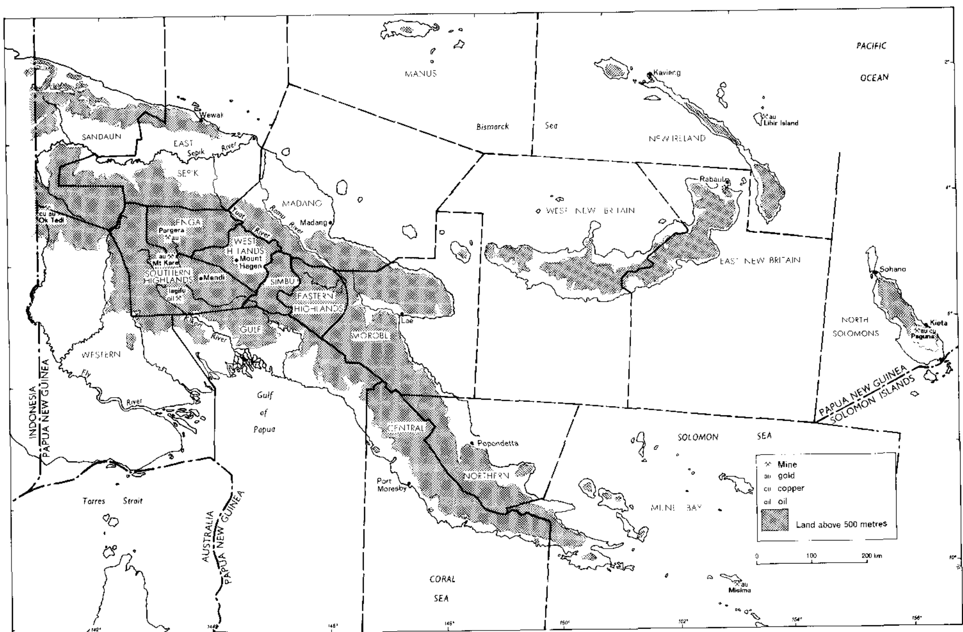
Frank Jarrett[1]

Aldous Huxley wrote:

> That men do not learn very much from the lessons of history is the most important of all the lessons that history has to teach.

The Papua New Guinea government has recently entered into a joint venture agreement with Halla, a Korean company, to establish a cement clinker plant at Lae. Halla will grind imported clinker until the feasibility of using local limestone is assessed. A five-year time horizon is envisaged. To assist Halla, the Papua New Guinea government first proposed an import ban but this has now been modified to an import tariff, the exact level of which is currently uncertain. This action is consistent with the government's proposal to phase out existing import bans on fruits, vegetables, pork, smallgoods, matches, wooden doors, poultry, eggs, sugar and canned meat in the next few years. The Papua New Guinea government is slightly opening one trade door by replacing bans with tariffs, but closing another as it adds to the list of commodities subject to high levels of protection.

Under the agreement, Halla will provide the capital equipment, material inputs, almost all the finance and management control. The Papua New Guinea government is to provide some finance, but most importantly guarantees the whole of the domestic market in



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cement, the repayment of loans and a defined level of after-tax profit on sales (15 per cent).[2] In a number of ways, the assurances provided to Halla are more generous than those provided to Ramu Sugar Holdings Limited as encouragement to establish a domestic industry to replace imports. Daniel and Sims state that:

> A major deviation from stated policy (that inefficient industries will not be protected or subsidised) has been the Ramu Sugar project. Although a sugar ban coupled with import parity pricing was negotiated, when the project ran into trouble soon after production commenced it successfully pressed the government for further support. By late 1984 sugar prices in Papua New Guinea were three to four times import parity.[3]

The differential between import parity price and domestic price has narrowed somewhat in recent years.

Quantitative restrictions on imports—be they fruit and vegetables, matches, wooden doors or canned meat—are all dimensions of the use of trade policy to attain particular development goals such as increased employment, balance of payments equilibrium, improved living standards, or equity in the distribution of income between groups and/or between regions. Trade policy instruments are used—often in combination—to promote strategies of:

- import substitution;
- expanding exports; or
- a combination of these two strategies, often underpinned by preferential arrangements.

An import substitution policy is directed at achieving more rapid development than the market itself would generate. The strategy is unambiguously associated with trade restrictions and protection. A strategy which is export oriented would seek to exploit Papua New Guinea's comparative advantage and to increase imports from the expanded foreign exchange earnings. As Australia has learned (to its cost), tariffs and quota restrictions on imports result in distortions in resource allocation, are no guarantee of job creation or economic growth, impose costs on unprotected exporters and confer windfall gains on those protected.[4] Regrettably, there are signs that Papua New Guinea is following that path with an increasing propensity to impose trade barriers.

Mechanisms for setting tariffs in Papua New Guinea

Decisions on trade policy and determinations of tariff levels in Papua New Guinea involve a number of government departments and statutory bodies. Tariff increases (which are part of the budgetary process and which are aimed at raising additional revenue for the government) are primarily the responsibility of the Department of Finance and Planning. *Ad hoc* requests for protection from a particular firm or industry are normally made to the Department of Trade and Industry.

The Tariff Advisory Committee was set up to provide advice to government on tariff changes. However, the Committee was poorly staffed, some changes were never referred to it, and the procedures involved (referral to the Minister, to Cabinet or to Parliament if tariff increases were recommended) often meant lengthy delays and poor implementation of recommendations. The Tariff Advisory Committee was replaced by the Industries Assistance Board in 1985. Its functions were similar to those of the Committee, but the role of the Board was much more precisely specified.

The original guidelines required the Board's recommendations to take into account:

- the objectives of the national development strategy, notably diversification and growth, and the promotion of industrial development on an efficient and competitive basis; and
- any written guidelines issued by the Minister, which may list priorities.

The Board did not come into force until 1988. In 1990, the government decided to repeal the Industries Assistance Board Act. The apparent rationale for this decision was the demise of the National Investment Development Act and its replacement by an Investment Promotion Authority. Under the National Investment Development Act, investment decisions had been drawn out and cumbersome. Originally intended to promote direct foreign investment, particularly non-mining investment, the National Investment Development Act operated more as a regulatory authority. The Investment Promotion Authority was to streamline decisions on foreign investment. The functions of the now-defunct Industries Assistance Board were

2 Rowan Callick, *Australian Financial Review*, 9 September 1991.

3 Philip Daniel and Rod Sims, *Foreign Investment in Papua New Guinea: policies and practices*, Pacific Research Monograph No. 12, National Centre for Development Studies, Research School of Pacific Studies, Australian National University, Canberra, 1987:88–9, 98.

4 K. Anderson and R. Garnaut, *Australian Protectionism: extent, causes and effects*, Allen and Unwin, Sydney, 1987.

subsumed within the Department of Trade and Industry. A potential conflict of interests, with the Department trying to promote investment as well as set tariff levels, may have been relevant in the government's recent decision to re-establish the Industries Assistance Board.[5]

The new guidelines of the Board will require it to enquire into and advise the government on:

- the general level of protection to be given to manufacturing industries;
- the level of protection for primary and secondary industries which need such protection from import competition;
- the imposition or removal of tariffs on importers into Papua New Guinea;
- other temporary assistance measures; and
- reviewing assistance already being provided.

The words 'efficient and competitive' in the original guidelines to the Board have disappeared. The intention is for the Board to act as a completely independent body, although located within the Department of Trade and Industry. What criteria will guide decisions by the new Industries Assistance Board are not yet clear. In any event, the cement clinker factory proposal does not appear to have gone before the Board.

Papua New Guinea has a number of incentives to encourage private investment. Many operate through the tax system, such as tax holidays and accelerated depreciation. There are also export concessions, foreign employment concessions, minimum wage subsidies and tariff protection. The Investment Promotion Authority could utilize many of these incentives but investors benefited only after meeting certain performance criteria. The cement clinker factory proposal represents a major departure from this policy stance. Halla is guaranteed a 15 per cent after-tax return.

The consequences of *ad hoc* protection

The argument for *ad hoc* protection is usually based on criteria other than efficiency and competition. Common justifications include:

- the protection will assist in import replacement and substitution and make a contribution to what might be an adverse balance of payments;
- the tariff protection will stimulate employment;
- the protection will provide training opportunities to develop a more skilled work force; and
- an infant industry argument whereby, if protection is granted in the short run, eventually the industry will become competitive and will no longer need tariff protection.

These arguments do not appear to apply to the cement clinker decision. Domestic production will replace imports so there will be some savings on the import bill. These savings, however, will be offset to a greater or lesser degree by the use of imported clinker, imports of capital equipment, net outflows resulting from the employment of expatriate personnel and the remittance of profits to overseas owners. At the same time, the higher costs associated with the protection will reduce profitability in the traditional export sectors. If this reduced profitability is translated into reduced output for export then export earnings are likely to fall. As a policy option, import replacement in the cement clinker case is unlikely to reduce foreign exchange costs significantly and, in the longer term, may impact adversely on the balance of payments.

The protection provided to one sector will result in increased costs to unprotected sectors and income transfers away from the unprotected to the protected sectors. A strategy of using protection to establish particular industries in Papua New Guinea means forgoing some of the benefits from international trade. Moreover, at the micro level an import-substituting industrialization strategy will bid up input prices as mobile resources move into the now relatively more profitable protected sectors. At the macro level, insofar as the import substitution strategy reduces the demand for foreign exchange, it raises the value of the kina relative to what it would otherwise be. This lowers the price in kina terms that unprotected exporters receive for their products. In Papua New Guinea the increased costs of protection will fall on the traditional export industries of coffee, cocoa, copra and palm oil: commodities in which it might be considered that Papua New Guinea has some comparative advantage. Although the extent of the shift in such costs is unknown in Papua New Guinea, it is suggested that, for Australia, as much as 70 per cent of nominal protection is shifted to exporters.

The income transfers will adversely affect smallholder producers of coffee, cocoa, copra

5 *Medium Term Industry and Trade Development Action Plan, Part A: Strategy, Policies and Programmes*, Government of Papua New Guinea, Port Moresby, 1991:66–7.

and palm oil. Such smallholders contribute about 75 per cent of coffee production, 70 per cent of cocoa, 60 per cent of coconut and 50 per cent of palm oil.

Domestic users of cement will pay higher prices for cement under the protection regime. This will translate into higher costs of housing and infrastructure (roads, bridges, airports and port facilities). Alternatively, for a given budget fewer of these facilities will be provided and, in aggregate, employment in these sectors will fall. The World Bank's reviews of the Papua New Guinea economy have drawn attention to the high costs associated with a number of investments directed at import replacement when scope exists for producing profitable export crops. The use of import quotas has raised domestic prices 60 to 80 per cent above import parity prices for a number of food items, with even larger increases in the case of sugar.

The proposed factory is to be located at Lae and a large part of production will be shipped to other parts of Papua New Guinea with attendant transport costs. Users in Port Moresby or Kieta who can import directly from Australia or New Zealand will have to pay transport costs of the clinker from Korea and the transport costs of the cement from Lae. For a number of products, shipping from Lae to Port Moresby is as expensive as shipping from Australia to Port Moresby. For other commodities, it is as cheap to ship from New Zealand to Kieta as from Lae to Kieta. Economies of scale and the favourable exchange rate in New Zealand are advantages in sourcing cement supplies in that country. The location of the plant at Lae will have an adverse impact on other regions in Papua New Guinea which could previously import cement directly but which now will be required to use more expensive cement sourced at Lae, with attendant increases in transport costs.

It is questionable whether the proposed cement clinker factory is consistent with the philosophy underlying the South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA). This agreement (between Australia and New Zealand on the one side and Papua New Guinea and the other Forum Island countries on the other) aims to provide concessional entry of imports from these two groups into Australia and New Zealand and to foster economic and industrial cooperation.

Effects of the proposed project on employment

It is widely recognized that Papua New Guinea will face difficulty in absorbing the additions to its workforce over the next five years, and that an employment policy is required.

> The most important ingredient in employment policy is to prevent too large a gap opening up between wages in the modern and earnings in the traditional sectors. So long as the traditional sector is not disturbed by a large income gap, it can hold and provide for all the people whom the modern sector is not yet ready to employ... Other ingredients are: measures to prevent excessive capital intensity; avoidance of an overvalued currency; adequate expenditure on developing the countryside; curbing the growth of a few large towns; ... and population policy... Deliberate action to substitute labour for machinery, in accordance with shadow pricing, even if confined to the public sector would go a long way towards eliminating open unemployment.[6]

The Papua New Guinea government has taken policy initiatives on a number of these objectives. These initiatives include devaluing the kina, moderation of wage increases and a population policy. The first two have led to an upturn in private non-mining investment, particularly in construction and manufacturing, in 1989–90. The cement clinker proposal, however, seems to run counter to Lewis' other prescriptions as well as to the Papua New Guinea government's stated objective of liberalizing trade.

Any employment created in the protected sector involves a substantial subsidy element. The extent of the subsidy will depend on the difference between the import parity price of cement, the domestic price, the volume of consumption involved and the number of jobs created.

Cement manufacture is capital-intensive and has considerable economies of scale. To exploit these economies of scale requires a plant that produces about 200,000 tonnes a year. If smaller plants are built, fewer of the cost economies of scale are realized, and the price of cement increases. Papua New Guinea's imports of cement were of the order of 75,000–80,000 tonnes per year in the late 1980s, valued at about K5 million f.o.b., or about K70 per tonne f.o.b. In late 1991, the c.i.f. price of cement, exclusive of the 8 per cent duty, in Port Moresby was about K112–113 per tonne. As a basis for calculating the subsidy likely to be involved we might assume that by the time the plant comes on stream

6 Arthur W. Lewis, *Development planning: the essentials of economic policy*, Allen and Unwin, London, 1966:83.

we are looking at domestic consumption of say 100,000 tonnes per year. Capacity in excess of 100,000 tonnes would have to be exported at international prices. These would probably be lower than domestic prices, and would result in foreign exchange losses on the project.

The number of jobs created is unclear. 'The project will employ 20–30 jobs directly in the first three years of operation and increase when the plant is improved into a fully integrated plant to manufacture cement from local resources.'[7] The latter, of course, assumes an economically favourable outcome from the proposed feasibility study. On the other hand, 'the cement factory requires K40 million investment to generate 100 permanent jobs'.[8] Clearly, for any given level of subsidy the fewer the number of jobs created the greater the subsidy per job.

We can only guess at the domestic price of cement after the tariff is imposed. The domestic price will certainly rise; how much it will rise depends on the level of the tariff imposed to guarantee Halla the 15 per cent after-tax return. Daniel and Sims put the proposed clinker plant in an historical context and indicate orders of magnitude for the price increases:

> By the end of the 1970s the arguments for and against having a fully integrated and foreign owned cement project using local limestone were an established part of the protection debate. Both sides were agreed on the basic economics—the project would double the price of cement in Papua New Guinea and, at least in its initial years, cause a net loss of foreign exchange to the economy.[9]

Under the original proposal an import ban was to be imposed, indicating that the equivalent tariff is likely to be quite high: at least 30 per cent and probably higher. Currently, Papua New Guinea is in the process of changing tariff structures from an f.o.b. basis to a c.i.f. basis. Protective tariffs range from 0 to 80 per cent in 1991. The zero rate applies to basic food items such as rice and canned fish. The higher rates apply to luxury items and motor vehicles. A rate of 8 per cent applies to most machinery and construction materials. Assuming an import parity price of K112 per tonne c.i.f., the price differential between the new domestic price and the import parity price may be of the order of K56 to K37 per tonne for tariffs of 50 per cent and 30 per cent respectively. The estimated price increases are conservative when compared with the estimated increases quoted above. On 100,000 tonnes this subsidy translates into approximately K5.6 million to K3.7 million. Even if 100 jobs are created the subsidy is of the order of K37,000 to K56,000 per job. The subsidy to Ramu Sugar pales in comparison. In 1991, the average domestic price of sugar was about K939 per tonne. The estimated c.i.f. price, Port Moresby, was about K338 per tonne. On an estimated local consumption of 27,000 tonnes with some 2,700 jobs the subsidy is of the order of K6,057 per job.

The above calculations are an attempt to get some idea of the level of distortions the proposed cement clinker plant is likely to cause. An efficiently functioning Industry Assistance Board could calculate the effective rates of protection involved and indicate that the cement proposal should not be allowed to set in concrete.

7 *Post-Courier* (Papua New Guinea), 12 April 1991.
8 Ibid., 15 March 1991.
9 Daniel and Sims, op. cit.:97.