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Asean Energy : A Question Of Political Will

By

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ASEAN ENERGY: A QUESTION OF POLITICAL WILL

Two of the Asean five have a big enough surplus of energy to be able to earn large sums from its exports. Against this, two others have been sinking deeper into debt year by year because of the huge chunk of their export earnings being pre-empted by imports. The fifth is a very special case: although wholly dependent upon imports, it manages to pay for them by its very large entrepot trade in energy from which its income has increased in step with the price rises since the first oil shock in 1973.

Added to this diversity of circumstances is a divergence in the trends of energy use. One would expect the hard-pressed importers to throttle back the growth in demand most sharply. But the data presented by the World Bank in its recent publication, **The Energy Transition in Developing Countries**, belie this expectation. The lowest rate of consumption growth was in Malaysia, the country where the domestic energy supply was doubling every 32 months during 1970-80.

At 3.9 per cent a year, the growth in Malaysian consumption was a shade lower than 4.1 per cent in the Philippines, the more vulnerable of the two hard-pressed importers in terms of its accumulated debts. But Thailand with the same 40 per cent or so of its exports pre-empted by petroleum imports was expanding its consumption by 8.2 per cent a year - only a shade less than Indonesia's 8.8 per cent or Singapore's 8.7 per cent.

Differences in policies governing the pricing of energy should in large part explain the anomalies highlighted by these figures. But they do not. Indonesia's prices are the lowest in Asean: premium petrol at the retail level costs only a quarter more than the actual import price without making any allowances for distribution costs. Kerosene on the same basis costs a third less. Yet the country's energy consumption per head of population in 1980 was the lowest in Asean.

And it has grown by just over a quarter over the previous 10 years or by only a third as much as in Thailand. Obviously, many other factors besides prices have to be taken into account, such as the level of per capita income and the evenness, or otherwise, of its distribution, the degree of industrialisation and even the country's geography.

Despite all the reams of paper devoted to analyses of Asean energy problems, there are still no clear explanations for some of the developments on the energy front in individual countries. Even expert studies are sometimes reduced to offering sweeping generalisations - as in the case of the remarkable fall in the amount of energy used in Malaysia to produce its national cake.

Such use is measured in tons of oil equivalent (toe), meaning that all fuels are translated into oil by using conversion factors equating the energy obtained from each. By this measure, Malaysia was using 515 toe in 1970 but only 353 in 1980, or a third less, for each million US dollars of its national income. There was a similar reduction in the Philippines but only by 18 per cent and in Singpore by 3.5 per cent.

Why was the fall in Malaysia much greater than in the other two countries? The bank study says that this was because the country moved to a pattern of more labour-intensive growth and hence it required less energy. This is news to Malaysians who can hardly believe that this was the case despite the explosion of cars, the higher capital intensity of its more mechanised industries and changes in life style requiring significantly larger use of energy for lifts, air-conditioning and TV watching.

It is not necessary to wait till all answers fall in place to decide the broad direction that energy policies should take in all the Asean five despite the diferences in their current rates of consumption or whether they are exporters or importers of energy. Incidentally, even the oil exporters import oil. The cost for crude alone in both Indonesia and Malaysia was about 10 per cent of their export earnings in 1981 but this is only because they found it cheaper to use the heavier oil from West Asia which is better suited to their needs and exported their premium grades.

The first requirement in Asean as in any other country, developing or developed, is to restrain the amount of energy used to produce each unit of national income. Although three managed to do so, while two - Indonesia and Thailand - could not during the 1970's, the future trend may well be different - depending on the type of industries they put in place. For instance, the one aluminium refinery at Asahan has undoubtedly made a significant difference to the Indonesian energy picture.

On the assumption that choices made by developing countries in energy-sensitive areas of activity will on the whole be wise and well-informed ones, the World Bank is projecting their total demand to grow by 4.5 per cent in 1980-95 compared with 5.9 per cent in 1970-80. It sees an even sharper slowing down in the demand for energy needs met by oil: the growth of oil consumption is projected at 2.7 per cent for the 15 year period against 5.8 per cent in the preceding decade.

These projections are for all developing countries - both exporters and importers of oil. Considering the latter separately, the bank is projecting demand growing at the higher rate of 5 per cent but the oil component growing just

a shade slower at 2.6 per cent than in the case of oil exporters.

Consumption growth in two Asean countries was slower in the 1970s than the averages for either all developing or just the oil importing countries, but well in excess in the other three. But there is no warrant for complacency in any country, even in the two relatively modest users - Malaysia and the Philippines - because the first faces the prospect of becoming a net importer of oil in 1990s and the other must continue to make strong efforts to reduce the gap of 30 per cent or more between what its exports have earned in recent years and what it has spent on its imports.

Even if consumption growth is restrained to prudent levels, the rise in absolute demand can be made more manageable in two ways - using domestically-produced energy in place of imports and switching where possible from a scarce form of energy like oil to one more readily available like lignite and natural gas in Thailand, hydro-power and natural gas in Malaysia, and imported coal or natural gas in Singapore.

Import substitution requires very large investments, while changing from one fuel to another will require either costly conversion of existing plants or the creation of new facilities like coal piers or gas pipelines. For hard-pressed Philippines and Thailand, such changes are made the more difficult because available resources are being drained by the bill for energy imports. The fall in energy prices in 1983 has not changed the basic situation. Despite the 15 per cent drop in oil prices this year, a Bangkok Bank projection shows that energy imports will still pre-empt a third of export earnings in 1983 against two-fifths at the peak of 1981.

It will be dangerous to assume that the 1983 fall in oil prices signals a prolonged downward drift. The situation is too fluid for making any firm predictions but common sense suggests that since demand will continue to grow and the supply of petroleum resources is finite, the price must inevitably rise to ration supplies. The World Bank is saying that prices in real terms will rise by about 1.6 per cent a year between now and 1995, or by about 20 per cent above the 1981 peak. This implies that a barrel will then cost about US$75 at current prices, underlining the need in all Asean countries to prevent avoidable increases in consumption of energy in this form.

Prevention is a task with manifold aspects, predictably so because oil supplies four-fifths or more of the energy requirements in each country - well above the average of less than half for developing countries world-wide. The shift from oil will be particularly difficult for Thailand where consumption increased the fastest among the Asean five during the 1970s - a result of its tardiness in adjusting

prices till early 1979. The adjustment was very sharp thereafter - raising the price level to double or more in less than two years. But the several cuts made in consumer prices this year suggest that policy-makers are not immune from popular pressures.

The power generating authority asked to be allowed to retain savings from lower crude prices to improve its ability to finance development, but the plea was rejected. This underlines the political sensitivity of pricing policies because of their wide impact on everyday life. It is very necessary therefore to promote a debate on the options open to a country to ensure that the public, specially the articulate urban consumer and business lobbies, have an idea of the costs and benefits.

In every country, three factors have to be taken into consideration in setting prices for a particular form of energy. First of course is the actual cost of producing or importing it. The second is either the tax element the government adds to raise revenues or the relief that it wishes to provide either from its own budgetary resources or by charging one set of consumers more to help another set. The third is the incentive that it may want to offer to encourage consumers to change from one kind of energy supply to another - from oil to, say, natural gas or for making industry use more power in off-peak hours when the system may have a surplus.

Among the three factors, the one that is at the centre of political controversy is which consumers should get relief at the expense of other consumers or the taxpayer in general. This brings to fore the issue of what should be the price of kerosene, the poor man's fuel, and diesel on which the farmer depends for operating pumps or other farm machinery. In all five countries, kerosene gets off lightly. The price charged in Indonesia is only a quarter of the import cost while in Malaysia it is less than four-fifths. Both these countries are also keeping diesel price artificially low in an extension of their policies for assisting farmers and fishermen.

The need for such assistance is not in dispute but the issue is whether a price subsidy for these products is the answer. Malaysia, now struggling to reduce its budgetary deficits, has belatedly realised that fishermen - one of the groups for whose benefit diesel is subsidised - account for less than one per cent of the product's total consumption. In other words, many other consumers are getting an unmerited concession.

Some countries have tried to differentiate among consumers of the same products through various administrative controls like kerosene ration cards or a special price for diesel sold through retail outlets to trucks. Invariably,

there is abuse. The cost of this, plus that of policing and the hassles that it involves, make this a burdensome option.

Even so, there is no denying the need in all Asean countries, Singapore excepted, to encourage the use of kerosene, or the alternative of liquefied petroleum gas, as a rural fuel. The denudation of forests is already a grave problem in Thailand and is becoming so in some areas of Peninsular Malaysia, Luzon in the Philippines and Java in Indonesia. Policing is ineffective, and urging rural folk to use crop or animal residues instead has a cost: it reduces the availability of valuable nutrients needed by the soil to replenish its fertility.

There are two ways in which this problem can be addressed but both depend critically upon grassroots support and participation. One is to promote the planting of village wood lots on marginal lands as in the Philippines, and making this a source of income for the landless. The other is using rural waste in biogas digestors to obtain methane as a fuel while recycling the sludge back to the soil. This is being tried on a large scale in China and India.

The Asian Development Bank's **Asian Energy Problem** highlighted two constraints: a family size plant needs dung from four to five animals, which limits the scope for adoption. If families take to village-wide collection of dung, the poor would be deprived of a free but precious source of energy. China is able to get round this partly by collective ownership and partly by putting human wastes into use but this too requires social control which may not be feasible elsewhere. In any case, there are taboos to overcome.

In sum, there is no easy way out. Despite all the claims made for different methods of harnessing non-conventional and renewable energy sources such as the sun, wind, tidal waves etc., the contribution from these to Asean needs will at best be marginal for the next 10-15 years or even longer. The task therefore boils down to exploiting conventional resources available and already identified in each country but which are not yet being utilised to any significant extent.

These are: coal, hydro and geothermal power in Indonesia, natural gas and hydro-power in Malaysia, hydro and geothermal power in the Philippines, and natural gas, lignite and hydro-power in Thailand. To cite just two instances, the hydro-power potential in Indonesia and Malaysia is 38 times and 40 times the present installed capacity.

The financial constraint which may stand in the way of utilising this potential is obvious. In Thailand's case, a master plan for energy development prepared by a team of

international consultants estimates investment requirements for developing domestic resources to replace imported oil at US$10 billion during 1982-91 (at 1980 prices). The annual claim of a billion dollars seems large until it is realised that it is only about 10 per cent of the total investment in the economy at the present time.

Even so, it will not be easy to set aside this proportion for energy alone because of the competing claims from other sectors -- some of them commanding considerable political clout as for example Bangkok's need for flood control and traffic dispersals. Ultimately, the allocations actually made for energy will depend in part on the size of the kitty and on the political will to accord the requisite priority.

It might be argued that viable energy schemes in Asean would draw in funds from abroad because of their potential for saving foreign exchange to replace imports or enlarge the export surplus. But two sobering thoughts need to be kept in mind. The total flow of external resources to developing countries world-wide is estimated by the World Bank to grow at only 10 per cent a year in 1982-95 compared with twice that in 1970-80. Within the total flow, private lending - very important in the Asean context - will slow down more sharply.

The flow of direct private investment will slow too but not as much. But the point to keep in mind is that such investment is not usually available for projects to meet domestic energy needs for which financing comes typically from aid or export credits. The development of Thailand's natural gas by a foreign contractor is an exception to this rule but this is unlikely to be repeated. A pointer is the demand made by a second contractor that Thailand would have to finance a part of the investment on a new field itself.

This points to two conclusions. The Asean countries will have to do more for themselves, and they should make it a point to reduce the foreign cost of their investments by developing local design and fabrication facilities - as Malaysia is doing. Secondly, they will have to offer more generous terms to any investors willing to participate in any part of their energy development programme. The demand-supply equation for foreign capital has changed in favour of the investor - a fact of life that Asean governments have begun to recognise.