Environment and Social Science Perspectives in Malaysia

Alam Sekitar dan Perspektif Sains Sosial di Malaysia

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ABSTRAK

Asal mula wacana alam sekitar di Malaysia sebagai tumpuan global dapat dilihat sebagai hasil daripada dialog Utara-Selatan semasa Persidangan Bumi Rio yang bersejarah pada 1992. Makalah ini membincangkan kepentingan wacana ini dari segi implikasinya terhadap persoalan alam sekitar dalam hubungannya dengan paradigma pembangunan di Malaysia yang sedang berlangsung. Makalah ini seterusnya menghuraikan kesan ke atas alam sekitar, kritikan serta maklumbalas masyarakat yang berkaitan dengan ideologi pembangunan Malaysia masa kini. Kemudiannya makalah ini mengemukakan dua perspektif – pertama, wacana daripada perspektif 'kuasa-modal-alam sekitar'- suatu gabungan antara negara dan kepentingan kapitalis antarabangsa/tempatan serta ilmu pengetahuan yang berpusatkan 'keuntungan mengatasi kepentingan insan', yang mendominasi agenda pembangunan hari ini. Satu lagi adalah wacana daripada perspektif' manusia-alam sekitar', yang mengutarakan suara yang tertindas serta ilmu pengetahuan yang mengutamakan 'insan mengatasi keuntungan'. Suara itu datang daripada masyarakat sivil, yang dekonstruktionis dan keikutsertaan sifatnya, merangkumi pergerakan dan agensi sosial (termasuk subalternisme dan penentangan) di kalangan rakyat, kelas, gender dan kaum minoriti peribumi, serta tema-tema ilmu pengetahuan dari fahaman 'kealamsekitaran' peribumi dan pendidikan alam sekitar. Makalah ini berpendirian bahawa perspektif sains sosial mengenai alam sekitar seharusnya bersuara bagi pihak yang tertindas di dalam dan luar negara. Tema alam sekitar sepatutnya menyatukan, bukan memecah-belahkan, rakyat dan ilmuan dalam rantau yang lebih besar, sama ada Asia Tenggara ataupun Asia, bahkan seluruh umat manusia. Kesemua mereka ini sama-sama terancam atau didominasikan oleh fahaman pembangunan yang dijanakan oleh modal dan kuasa.

Kata kunci: wacana alam sekitar, sains sosial, Sidang Bumi Rio, fahaman pembangunan, Malaysia

ABSTRACT

The genesis of the environmental discourse as a global concern in Malaysia can be seen, as a by product of the North-South dialogue at the historic Rio Earth Summit of 1992. This article discusses the relevance of this discourse with implications to the environment question as it relates to the prevailing paradigm of Malaysian development. The article then elaborates on the environmental impacts, critiques and community responses arising from the current conditions of Malaysian developmentalism. It then presents two social science contesting perspectives – firstly, a 'power-capital-environment' discourse – a fusion of state and international/national capitalist interests and 'profits before people' oriented knowledge, and one which dominates the development agenda of the day. The other is a 'people – environment' discourse , articulating the subjugated voices and 'people before profits' oriented knowledge(s) from civil society, which is deconstructionist and participatory, incorporating movements and 'social agency'(including 'subalternism' and resistance) amongst citizenry, class, gender and indigenous minorities, and themes of indigenous environmentalism/ knowledge and environmental education. The article takes the position that a social science perspective on the environment should speak for the subjugated voices from within the nation-state and beyond. The theme of environment should unite rather than divide the people and scholars in the bigger region, either of Southeast Asia or Asia, and indeed the rest of humanity, who are equally threatened or dominated by developmentalism driven by power and capital.

Keywords: environmental discourse, social science, Rio Earth Summit, developmentalism, Malaysia

THE NORTH-SOUTH ENVIRONMENTAT DISCOURSE & DEVELOPMENTALISM

It is instructive to begin the following discussion by addressing some of the issues arising out of the North-South dialogue on the environment at the historic Rio Earth Summit of 1992. Given the context of an environment discourse that is becoming more global and increasingly contested, it is interesting to note that since the above Earth Summit, the scenario has further been complicated by what is seen as an increasing 'polarisation' between the Industrialised North and the less developed nations of the South (including Malaysia), with each emphasising its own priorities and points of departure with regard to the environment issue (Sham Sani 1993:99-127). It appears that whilst both sides acknowledge the principles of 'sustainable development' as defined by the World Commission on Environment and Development, there is disagreement pertaining to approach, with the South asserting their rights to view and manage

environmental issues not in isolation from the wider issues of development, such as poverty, the rights of indigenous peoples, debts and the international trading system (Sham Sani 1993:103). Southern countries feel strongly that these issues should be addressed in conjunction with those on global environmental management. To them, the Summit merely affirms the preoccupation of the North "with specific environmental issues than with relieving".

Poverty, which developing countries argued, was the fundamental cause of environmental degradation (Sham Sani 1993:124). At the same time, against the North's insistence on the international control of the forests, the South retreats behind "the rhetoric of livelihood security" whilst at the same time defending "the salience of state control and national sovereignty" (Barraclough & Ghimire 1995:3).

At one level of analysis, it is tempting to view the above North-South differences as constituting two opposing discourses on the environment. However, such a view is not only a-historical but also superficial, tenable only at the level of *realpolitic*. For indeed, the degradation of the world environment, both in the North and South, should be seen historically as the by-product of a similar type of development paradigm, which despite its *Northern-cum-imperialist* origin, has subsequently been the defining parameter for the development policies and both the socio-economic and environmental transformation of the South. In the above context, it is critical and politically instructive to note that despite the recent euphoria over what seems to be the increasing concern over the state of the world environment at all levels of humanity - ranging from 'tribal' (indigenous) minorities right to NGOs, scientists, scholars and the international community – such a 'concern' has also been predominantly mediated by the interests of certain dominant players in the field-namely, the state and capital , from both the North and South.

It is thus equally imperative to argue that despite what appears to be North vs South differences on the environment issue, they do not necessarily constitute two opposing discourses. Historically there has been a convergence of vested political and economic interests between the dominant political elites and social classes from the North and South built around a commonly shared development paradigm, which through time, has worked to the detriment of the environment in both parts of the world.

Once an integral part of the imperialist design and 'world system'(after Wallerstein), with decolonisation, the so-called independent 'nation-states' of the South were left with the burden of the 'development industry' (Crush 1995:5) – or the 'development project' (McMichael 1996:77-143) – 'the imaginary of development and catching up with the west' (Escobar 1995:216), the texts of development, written in representational language, are a 'language of metaphor, image, allusion, fantasy and rhetoric' (Crush 1995:4), and they 'have always been avowedly strategic and tactical – promoting, licensing and justifying certain interventions and practices, delegitimizing and excluding others' (Crush 1995:5).

Out of this authority-defined 'developmentalist' discourse, peripheral countries and nation-states have become classified as 'undeveloped', 'transient', 'traditional': indigenous cultures have become 'orientalised' (Said 1978) and represented as 'static', 'fatalist', 'non-achievement oriented', and natives are depicted as 'lazy' (Alatas 1977), for

deeply embedded within development discourse was a set of recurrent images of 'the traditional' which were fundamentally historical and space-sensitive. Collectivities (groups, societies, territories, tribes, classes, communities) were assigned a set of characteristics, which suggested not only a low place in the hierarchy of achievement, but a terminal condition of stasis, forever becalmed until the healing winds of modernity and development began to blow (Crush 1995:9).

Ideas about development did not therefore arise in a vacuum but rather mediated via a hierarchical apparatus of knowledge production and consumption, as Alvares (1992:230) remarks "knowledge is power, but power is also knowledge. Power decides what is knowledge and not knowledge". Hence, it was not just simply a process of legitimising or empowering any idea of development – it was part and parcel of a paradigm, as echoed by Lohmann (1993:29):

The name for this new type of Northern intervention and the solution to the newly-discovered Southern deficiencies was of course 'economic development'. Plunder and 'civilising' notions of progress were fused into a single program of economic and social improvement through exploitation of resources, potential markets and 'comparative advantage'. No group being reorganised …could possibly be oppressed since such 'development', by definition, was what enabled people to reach their potential: Exploitation , resistance and liberation were defined out of the discourse.

In the historical context of the genesis of the above 'development project', there is more convergence between the North and South than is officially proclaimed by the political leaders of the South. Nor does the Southern critique of the North necessarily mean that the former is about to embark on a sudden 'about change' in relation to its existing development paradigm, as has been clearly demonstrated by the rhetoric's of the Rio Summit:

The main response of those in power has been to hide these unpalatable truths behind a 'development speak' that disguises social injustice and the politics of vested interests in an anodyne language of 'poverty alleviation', 'underdevelopment' and 'overpopulation'. (Colchester & Lohmann 1993:14)

Implicit in the above 'developmentalism' is also the model of 'the good life' which prevails in the affluent societies of the North: the USA, Europe and Japan. For the South, 'imagining development' is a vision which embraces the generalisability of the 'good life' model, the living standard of the consumer-oriented model prevailing in the rich countries of the industrialised North, and with it, its whole package of industrial growth model and its paradigm of permanent growth (Mies & Shiva 1993). At the level of cognition and emotions of Southern subjects, the pursuit of an acceptance of the values, lifestyle and standard of

living associated with the above model of 'the good life' is 'invariably accompanied by a devaluation of one's own culture, work, technology, lifestyle and often also philosophy of life and social institutions' (Mies & Shiva 1993:56).

It has become clear that since the publication of the Club of Rome's *Limits to Growth* and *the Global 2000 Report to the President* (Mies & Shiva 1993:251), our planet's resource base is limited and that to pursue the paradigm of permanent growth will inevitably outstretch the ecological limits of planet earth. It also means that the catching-up development and the consumerism-based 'good life' model of the North and the affluent classes and elites of the South cannot be generalised to all members of the planet. Moreover, considering the polarisation process, such developmentalism has engendered between the rich and poor across the universe, and even within single nation-states, not to mention the ecological destruction and the deterioration of material life wrought upon the affluent countries themselves, one must also question whether such a goal is indeed desirable.

Trainer, for instance, notes that those living in the USA, Europe and Japan, consume three-quarters of the world's energy production. Thus , he concludes that for the rest of the world to 'catch-up' and share equally its consumption, it would mean that "Americans would have to get by on only one-fifth of the per capita amount they presently consume" (Trainer, cited in Mies 1993:60). The industrial growth model has also wreaked havoc on the ecology, by both destroying the ozone-layer and being responsible for the greenhouse effect. It is also a fact that "Not only does one quarter of the world's population consume 75 percent of the world's energy, but also produces 80 percent of the CO^2 emissions" (Trainer 1993). It is evident that a growth-oriented model of the industrial world is non-sustainable and non-generalisable worldwide. To persist would be to go against the grain of logic, as demonstrated by some of the concrete findings on the reverse impact the dominant Northern development paradigm has had even on its own society. On a global scale, it is instructive to remind ourselves that 200 years ago, before Southern nation-states were caught up in the 'development project', it was observed that the Western world was only five times richer than today's poor countries. However, by 1960, the ration was already 20:1 and in 1983, it was 46:1 (Trainer, cited in Mies 1993:251). So much about 'catching-up' and 'imagining' 'the good life' of the Industrial North!

The objective of this article is to discuss the relevance of the environmental discourse as a global concern with implications to the environmental question as it relates to the prevailing paradigm of Malaysian development. It also elaborates on the environmental impacts, critiques and community responses arising from the current conditions of Malaysian developmentalism. Very importantly, it presents two social science contesting perspectives – firstly, a 'power-capital-environment' discourse – a fusion of state and international/national capitalist interests and 'profits before people' oriented knowledge, and one which dominates the development agenda of the day. The other is a 'people

– environment' discourse, articulating the subjugated voices and 'people before profits' oriented knowledge(s) from civil society, which is deconstructionist and participatory, incorporating movements and 'social agency'(including 'subalternism' and resistance) amongst citizenry, class, gender and indigenous minorities, and themes of indigenous environmentalism/ knowledge and environmental education. The article then ends with a brief conclusion.

MALAYSIAN DEVELOPMENTALISM: ENVIRONMENTAL IMPACTS, CRITIQUES AND COMMUNITY REPSONSES

The emergence of 'developmentalism' (politics of development) or the 'Developmental State' in Malaysia has been noted by several scholars (Francis Loh Kok Wah 1997, 2002; Leftwich 2000; Abdul Rahman Embong 2002, 2008). Leftwich (2000:176) further classifies Malaysia as dominant-party developmental democratic state, whose features include:

1. A dedicated developmental elite
2. Relative autonomy for the state apparatus;
3. A competent and insulated economic bureaucracy;
4. A weak and subordinated civil society;
5. The capacity to manage effectively local and foreign economic interests;
6. A varying balance of repression, legitimacy and performance, which appears to succeed by offering a trade-off between such repression as may exist and the delivery of regular improvements in material circumstances.

Many of these features have been elaborated in the works of Gomez and Jomo (1997), elaborating on features of statist or 'bureaucratic capitalism'/ 'rentier capitalism' and patronage politics; Crouch, characterising the Malaysian polity as an 'ambiguous regime' being 'neither democratic nor authoritarian but contains elements of both' (Crouch 1996:12); Nair (1999) and Verma (2004), both elaborating on Malaysia's 'subordinate' civil society. It is interesting to note that amongst others, Leftwich (2000: 167) characterises the 'developmental state' as being

typically driven by an urgent need to promote economic growth and to industrialise, in order to 'catch up' or to protect or promote itself, either economically or militarily or both, in a world or regional context of threat and competition, and to win legitimacy by delivering steady improvement in the material and social well-being of its citizens. Developmental states in the modern era have thus been associated with a high degree of both economic and political nationalism...able to generate an average annual rate of growth in GNP per capita of 4 percent, at least, over the last few decades of the twentieth century.

In 1982, ten years before the Rio Summit, there was already a call for a conference by Malaysia's most thriving NGO, Consumers' Association of Penang (CAP), entitled: *Development and the Environmental Crisis: A Malaysian Case*

(CAP 1982). In his opening address, the infamous CAP President, S.M. Mohd Idris, was already drawing our attention to the impact of 'developmentalism' on the Malaysian environment:

If the world is facing an environmental crisis, Malaysia is no exception. In fact our environmental problems may rank among the most serious in the world. Our forest and wildlife are being threatened by the incredible rate of logging activities...Rapid deforestation and indiscriminate construction activities are also contributing to the rapidly increasing incidence of flooding, in both urban and rural areas. Large scale land development results in extensive soil erosions and silting of rivers...River pollution has reached alarming proportions, with 58 major rivers seriously or moderately polluted...caused by oil palm and rubber effluents, toxic chemicals and metals, and the dumping of raw sewage and garbage....In recent years the fishing industry has also been thrown into a crisis due to over-fishing by trawlers and pollution of the rivers and seas...(I)ndustrial pollution which threaten the quality of life in Malaysia today includes the large-scale dumping of palm oil effluents into rivers, indiscriminate disposal of chemical and metallic effluents by factories...

It is clear that environmental issues can no longer stay in the ivory towers of bureaucracy and academia. They must be brought into the open, into the market place where ordinary people meet. It is time for the common man in Malaysia to be aware of the environment and to become involved in the movement to stop its further destruction. The situation is so critical that a piecemeal approach is doomed to failure. What is required is nothing less than an overhaul of our way of thinking, our policy assumptions, our concept of development and even our very lifestyle (CAP 1982:1-2).

A good fourteen years later, and four years after the Rio Earth Summit, in 1996, another national conference was organised by the same NGO, this time, entitled "*The State of the Malaysian Environment*". This time, the statement and summary of the conclusions at the meeting were more alarming, as the following review of 'the state of the art' of Malaysian environment and developmentalism testifies:

It is time that the public's more and more vocal concerns are now matched by visible and increased political will by the nation's leaders and administrators to take urgent and comprehensive action to conserve natural resources, and phase out unsustainable practices and technologies. Over the past few decades, the Malaysian environment has continued to deteriorate. The rapid growth of the past five years, whilst raising the GNP and incomes, has also had a great toll on the environment.

The pitfalls and tragedies of uncontrolled rapid growth, with scant regard for ecological principles, show up the terrible lack of responsibility of developers and loggers, whose stripping of tree cover especially on highlands, and whose faulty design and construction methods, have resulted in massive soil erosion, river silting, water pollution , floods and building and highway collapses.

In the rural areas, especially in East Malaysia, extensive logging has caused degradation of forest ecosystem, massive river siltation, damage to community

lands and resources, disrupting the lives of many thousands of people. Wetlands throughout the country are being destroyed for reclamation, urban development, aquaculture and tourism development. Inland wetlands are also threatened with tourist resort development. The country's marine ecosystem, among the world's richest in terms of biodiversity is rapidly deteriorating. Coastal wetlands and coral reefs are destroyed by physical developments and land-based pollution. Over-fishing with destructive technologies has depleted much of our fishes.

In the urban centres, where economic growth is highest, there are signs of greater stress and strains of urban living, including rapidly worsening traffic, and unhealthy levels of air pollution (augmented by heavy haze) that have raised the level of respiratory ailments, the increase in acidity in rain and the rise in temperature levels, as well as the reduction of 'green lungs' and recreation spaces that are taken over by high-rise buildings.

It is vital that Malaysia must show a genuine commitment to the environment and move towards sustainable development in which present economic activity and growth is not at the expense of the future. It is better to have balanced and controlled growth which places ecological principles at the centre rather than at the sidelines (or worse at the back of the priority list), and which can thus be sustained over many years and decades, than to have a bright and brief sparkle that cannot last.

There are justified fears that the economy has been growing in a pattern that is putting great stress on the environment as well as on national finances. The rapid growth of buildings and the proliferation of mega projects is depleting and degrading natural resources such as water, forest, soil and the atmosphere. Due to high import content of industries and mega projects, the balance of payments in 1995 suffered a current deficit of RM18 billion, a high percentage of the GNP. With many more mega projects lined up, including the Bakun Dam, Putrajaya, KL International Airport, Highland Highway and dozens of hotel-golf courses, it is estimated that the import bill may escalate further.

Signs that the economy is suffering environmental overstress have emerged. Continuing rapid deforestation and construction activities (especially in hilly areas) have accelerated soil loss and soil erosion, and severely damaged water catchment areas. There are predictions of water shortages within two decades. The increasing amounts of solid waste, garbage, sewage, and toxic industrial waste are posing disposal problems. Genetic diversity in plant, animal and marine life is rapidly disappearing.

There are also alarming signs that instead of strengthening environmental laws, there may be a trend towards weakening them. It is difficult for the same state authorities that are proponents of a major project to also be the authority approving the environmental impact assessment for the project." (emphasis mine).

In November 2000, a historic national conference on *People Before Profits: Asserting the Rights of Communities in Malaysian Development* was organised

by SUARAM (Suara Rakyat Malaysia, literally means Voices of the Malaysian People), another NGO committed to human rights and environmental protection. The keynote address by its director, Dr. Kua Kia Soong, represents a Malaysian Communities' critique of Malaysian developmental state, especially the rights of those in civil society to be empowered and be equal participants in the development which affects their lives; as the following excerpts testify:

This national conference is a historic occasion even if it is long overdue. It is the first time that communities in different parts of Malaysia, communities which have been victims of so-called "development" have gathered together.to share their experience of the last twenty years and to discuss an alternative sustainable path of development. The communities that have come together to this conference have been victims of unfettered capitalism and unaccountable privatisation projects. These projects invariably bear the blessing of the federal and state governments...

It is vital for Malaysian democracy and sustainable development that communities are empowered in their struggle. Authoritarian leaders in Asia have tried to argue that economic and social rights are pre-requisites for the enjoyment of civil and political rights, that the right to development should have priority rights over all other rights. This conference challenges the false assumptions of this claim by assembling cases of Malaysian communities whose rights have been violated in the so-called 'development' process. Their plight and their experiences are the best testimony to the rapacious greed and ambitions of developers and politicians.

These so-called development projects have invariably disregarded the right of people involved to be consulted; violated regulations on environmental protection and in many cases, involved allegations of corruption, non-accountability and violations of human rights. The prevalent ideology of economic growth has dictated that development is geared towards ever-increasing growth in production, construction and consumption. This has kept in step with the increasing pace of internationalisation of capital with the accompanying changes in the labour process, organisation of production and changes in the working class. This ideology presumes that there is a 'trickle down' effect to benefit those at the bottom of the social heap.

The reality is a crisis of increasing disparities in the distribution of wealth in the country; between East and West Malaysia; between rural and urban areas; between men and women; the victimisation of marginalised groups including indigenous peoples, urban settlers, plantation communities, and the depletion of forest, energy and water resources. The pattern has been that it is the rich and powerful backed by political leaders who decide what is to be produced, which resources to exploit and how much profits will be made. However, the rich and powerful do not necessarily use their money for these projects.

The Bakun HEP dam project is a prime example of non-transparency, misconceived priorities and flawed planning-building a 2,400 MW capacity dam for a state whose total energy demand is only 500 MW, displacing 10,000

indigenous peoples even when the project had been suspended in 1999, and building the largest resettlement scheme at Sungai Asap without following proper building procedures. The result is as the Coalition of Concerned NGOs on Bakun had warned long ago, that is "Empty Promises, Damned Lives".

The organisers regard the November 2000 conference referred to above as a turning point in the resolve of the people to say "No" to irresponsible destruction of the environment; the victimisation of the orang Asli and other indigenous peoples in senseless projects; blatant pollution by factory owners; mindless proliferation of highways; forcible evictions of communities for questionable property development projects; the sacrifice of irreplaceable natural and cultural heritage. It is an expression of a new resolve by communities to say "Yes" to planning backed by a high level of participation in civil society. There must be plural forms of ownership without unaccountable concentration of private power, a mixture of plan and market (sic) as well as vibrant co-operative and communal sector. Within the workplace and the wider society, democratic forms of participation must be promoted. The conference underpins the inseparable connection between the environmental movement and the people's movement for democracy and human rights, the integration of green perspectives into the politics of production, distribution and exchange. "We want to establish a national coalition of support and solidarity for all communities under threat from irresponsible and dubious projects and to strive for an alternative path of development in which the interests of the people come before profits" (Kua Kia Soong 2002a:3-12).

All the above arguments indicate the perspectives and critiques of the community and NGOs towards Malaysian developmentalism. Lets turn now to the social science perspectives on environment.

SOCIAL SCIENCE PERSPECTIVES ON ENVIRONMENT: TWO CONTESTING DISCOURSES

POWER-CAPITAL – ENVIRONMENT VS PEOPLE-ENVIRONMENT DISCOURSE

As a social science committed to the well-being of humanity and its environment of planet earth, it is both intellectually and politically imperative to counter the 'hegemonic' discourse on the environment that has been propagated by the vested interests of the state and capital in both the North and South. The above hegemonic discourse is articulated via the dominant 'power-capital-environment' based discourse, expressed in the emergence of the developmental state, with developmentalism (or profits before people) as its underlying ideology. From a social science perspective, it is the summation between the Rostowian model of stages of economic growth, sociological functionalism and the modernisation school of thought, rather than coming from a critical political economy approach. The environmental impacts on the Malaysian landscape generated by such a

'power-capital-environment' discourse, which is essentially a variant of the development project/ industry agenda of the North, have already been elaborated in the previous section.

An alternative social science discourse which upholds sustainable development (or alternative forms of development/ "people before profits" approach) and civil society concerns has no choice but to identify itself with the subjugated voices of humanity and the nation-state and push for a 'people-environment' based discourse.

The above discourse is one that is ideologically opposed to the dominant 'power- capital-environment' based discourse. Theoretically, it should be one that is both critical and deconstructionist. It should be a discourse that makes space for mediation by scholarship, research and knowledge; whose intellectual task, among others, is to debunk mythologies that have been propagated as 'regimes of truth' (after Foucault) on environment problematic (see Fadzilah Majid Cooke 1999 for a creative application of Foucault's ideas to the discourse on environment), as well as being driven by a sense of commitment to people, environmentalism and social justice. Among its substantive contents, it embraces cultural elements of indigenous knowledge/ environmentalism, social agency and people related themes of participatory development and empowerment among citizenry, class, gender and indigenous minorities.

A critical and deconstructionist type of scholarship must consistently attempt to demythologise dominant arguments, such as those that attempt to correlate 'poverty', 'overpopulation' or 'underdevelopment' with environmental degradation, such as deforestation or forest encroachments. Studies on traditional shifting agriculture (Colchester 1990; Hong 1987) and adaptive strategies of indigenous Malaysian 'tribal' agricultural practices (Benjamin 1985; Rambo 1980 & 1982) have demonstrated that "if such ways of life are what is meant by 'poor', as is often the case, then it is simply false that poverty causes deforestation" (Lohmann 1973:30). Indeed there is "an even better ground for saying that it (i.e deforestation) is caused by wealth and development" (ibid). There may even be more truth in the argument that 'deforestation causes overpopulation' (which in turn exacerbates colonisation) rather than the reverse. As Lohmann (1973:25) again asserts "Throughout the history of deforestation , the populations with the greatest negative impact on forest, both direct and indirect, have tended to be distant elites, not people who are accustomed to living in or close to particular forests".

Zawawi's research among Orang Asli in the Malaysian postcolonial developmental state also confronts similar dominant mythologies which need to be deconstructed. The JHEOA (Department of Orang Asli Affairs) explanation for the Orang Asli's inability to develop has always been coloured by the pejorative labelling of *'pindah-randah'* (literally: 'moving about'), a popular official description of the alleged 'nomadic' or 'shifting' habits of the Orang Asli. Hence it is quite normal for JHEOA officials to resort to such an explanation

to justify why Orang Asli communities cannot be settled down to permanent settlement. Zawawi's research among the Jakuns in the Pahang Tenggara region reveals that there were Orang Asli communities who, after having 'shifted' from their original sandy coastal areas to better inland agricultural areas, began to officially apply to the JHEOA for their new area to be converted to *kampung kekal* (permanent village), indicating their interest to settle permanently in areas where the soil is conducive to grow permanent agricultural crops and fruit orchards. Indeed when the new 'development' scenario of RPS (regroupment schemes) was introduced via the DARA Regional Development Authority in the Pahang Tenggara as a 'development' strategy 'from above' to "modernise" the Orang Asli by relocating them from their traditional villages to these planned regroupment centres, many disagreed on the ground they preferred to stay put and would rather the authorities help them secure their security and rights over their existing ancestral lands (*saka*) and empower them instead to be self-sustaining on their existing agricultural plots. For many, it was not a question of wanting to *pindah-randah* (to shift), but being officially "forced to shift" (Zawawi 2000).

The story is all too familiar with the Orang Asli. True life experiences (knowledge) of their everyday realities help them see through the mythologies (and hegemony) of the dominant discourse about them. Below we reproduce the lament of a Temuan *Batin* (headman) of Bukit Tunggul, in the urban periphery of Selangor when his 'tribe' was forced to move from the area in order to make way for a golf resort. At the point of 'forced dislocation', the village already had a flourishing rubber mini estate and fruit orchard. Interestingly enough, Bukit Tunggul was the second area they had to move to, after the authorities had directed them to shift from another adjacent area which had to make way for Universiti Kebangsaan Malaysia (National University of Malaysia)! As documented by Zawawi (1998a: 166):

We are always being shifted about (*asyik kena pindah saja*). Before the government said these Orang Asli always shift, shift, shift and shift, from hill to hill, from hill to hill (*Orang Asli ni selalu pindah, pindah, pindah, pindah ke bukit ke bukit ke bukit*). Now it's the government that wants to shift the Orang Asli. How can this be? (*Mana ke jadi?*) What is right (*Mana yang betul?*). The government instead is making the Orang Asli shift. How can we be permanent? (*Mana nak tetap?*) Now how to succeed? (*Sekarang mana nak berjaya?*). Just as we're about to tap the rubber, we have to move (*Baru nak menoreh, dah pindah*).

The theme of indigenous environmentalism or indigenous knowledge is a common one which is often articulated historically through the religious traditions and belief systems of the diverse Southeast Asian communities (Kathirithamby-Wells 1992). Studies of such knowledge and practices, ranging from those amongst the Penan (Langub 1995, 1996; Hong 1987), Orang Asli (Benjamin 1985; Rambo 1980 & 1982; Nicholas 2000; Zawawi 2000; Griffen 2001), the indigenous communities of the Crocker Range of Sabah (Zawawi 2001), the inhabitants of

kesepuhan (warga kesepuhan) of Halimun mountain in West Java (Kusnaka Adimihardja 1992), to the forest monks of Thailand testify that these involve both "the maintenance, and to an extent protection, of environmental resources for subsistence needs" (Rigg 1995:8), as well as "the creativeness of popular wisdom... which is dynamic, and is subject to change and evolution" (Phongphit & Hewison 1990:169). In an innovative anthropological work on the ecology of Thailand, Tanabe (1994:12), developing the Bourdieuan concept of 'habitus' demonstrates both conceptually and empirically the dynamic and adaptive nature of 'practical technology' among rice-farmers "rooted in the historical experiences of social groups, which enable human agents to know and act on the ecological relations and cope with the complexity of social relations, because of its accommodative and flexibly generative basis of practices".

In reviewing indigenous management and the management of indigenous knowledge, especially in defence against the dominant development paradigm, orientalism and western knowledge systems and 'scientific rationality', Marsden (1994:45-46) writes:

Until recently the dominant paradigm, which stressed the superiority of western objective, scientific rationality consigned 'other' forms of knowledge to positions of inferiority. It seems that the scientific tradition itself is the one that is 'traditional', endowed with magic, religion and superstition, as its tenets turn into dogma and as intellectual creativity is thereby stifled. Into this quest comes a renewed interest in indigenous knowledge systems, in the belief that they may be the bases for building more sustainable development strategies, because they begin from where the people are, rather than from where we would like them to be. It is commonly maintained that these indigenous technical knowledge systems if articulated properly will provide the bases for increasing productivity, for creating more viable livelihood strategies and for encouraging alternative living arrangements. The assumption is that because peasants, nomads, natives and women have survived for centuries in harmony with nature they have obviously developed highly attuned adaptive strategies which need to be recuperated and used as a basis for planning for the future. Indigenous technical knowledge is to be 'harnessed' for the purpose of development. The assumption is that peasants and poor people, the usual objects of development aid, are well-informed decision-makers who know what will and will not work. They are not the irresponsive, conservative traditionalists that the architects of modernisation theory would have us believe. 'Local', 'traditional' or 'folk' knowledge is no longer the irrelevant vestige 'backward' people who have not yet made the transition to modernity, but the vital well springs and resource bank from which alternative futures might be built.

Indeed, whilst there is also evidence to suggest that "not all indigenous resource-use practices are ecologically and environmentally sound" (Lian 1993:331), and "to conclude naively that all traditional systems of resource use are indisputably 'sustainable' and above 'criticism', the crucial point is to recognise ... that they are far more diverse, complex and subtle than outsiders realise... and that there exist ... social, cultural and institutional strengths inherent in traditional systems of resource use... upon which to build and achieve sustainability" (Colchester 1993:81).

The discourse that is proposed here is also a political one that requires people's popular-based participation, empowerment and rights to choices in the realm of civil society in the face of a developmentalism that is imposed, and which expropriates and controls. The approach here centres upon the notion of 'human agency' (Giddens 1976), which recognises that in the context of the specific lifeworlds that individuals conduct their everyday affairs, and within the limits of the information and resources they have and the uncertainties they face, individuals and social groups are 'knowledgeable' and 'capable', that is, they devise ways of solving, or if possible avoiding, 'problematic situation', and thus actively engage in constructing their own social worlds. Hence the lifeworlds of individuals are not preordained for them by the logic of capital or by the intervention of the state, as is sometimes implied in theories of development (Long 2001:24 also citing Buroway). Social structures, as Giddens (1976:121) has succinctly explained, are "both constituted by human agency, and yet at the same time the very medium of this constitution".

Nevertheless, too often, grassroots-based communities, especially those that have been encroached upon, have either become 'marginalised' or 'threatened peoples' (Lian 1993; Zawawi 2002, for the Penan current development dilemma). As a consequence, Colchester (1993:64) states "They are thus poorly placed to exercise the 'participatory' control over their resources that 'sustainability' demands". Hence for the Orang Asli of Malaysia, by way of the RPS model of development, the postcolonial state not only avoids confronting the issue of indigenous land rights, but also ignores the priorities that should be given to those who opt for a concept of development, that is 'small' but populist-based, and embodying principles of sustainable development built upon the use and security of traditional ancestral *saka* land for smallholding agricultural production.

On the periphery of expanding Malaysian urban centres, 'mega' post-colonial development projects, attempting to embrace globalisation and the Newly Industrialising Country (NIC) status, encroach upon Orang Asli land reserves and established rural 'communities' in the name of 'development' to a point where the Orang Asli have become fearful and afraid (takut) of the word 'development' (pembangunan) – for to them the term inevitably means marginalisation, loss of land, trees and livelihood, and the attendant dislocation that goes with it to make way for new super grid highways, the new airport, and tourist-cum-golf resorts. However, it seems that whenever they speak of their deepest fears for their own survival so that they could also be participant-partners in charting out their own development and destiny, they are often chided and labelled as 'anti-development'. Thus, their counter slogan-cry *Kami Bukan Anti-pembangunan* (We are not Anti-Development) is a symbolic expression of a subjugated discourse which aspires to be a participant but is denied a meaningful place in the authority – defined development discourse of the postcolonial state. Orang Asli (and indeed, the Penans) have become 'the

Other' in a nation-state that boasts of economic growth and 'Vision' (Zawawi 1996, 1998a).

Thus, as had been emphasised, developmentalism is also the story of 'mega projects', as is also evident in the revitalised Bakun Dam Project, because 'power', according to Edward Goldsmith and Nicholas Hildyard, "and in particular cheap power- is considered the *sine qua non* of development" (cited in McNeely & Sochaczewski 1988:304-305). Whilst massive water resource development has been the source of political power for ages in Southeast Asia society, one of the region's first major irrigation schemes, in Angkor, apparently ended in tragedy and ruins; it brought "only short-term benefits and led to the destruction of forests and wild life" (ibid:307), thus bearing 'a message' still "relevant to us today" (ibid:305) (also see Yong, Carol 2003, for a discussion of the Babagon dam and the Resettlement of the Kadazandusuns in Sabah For a community perspective on the revitalised Bakun Dam, see Kua Kia Soong 2002b; and on the Selangor dam, see Rosli Omar 2002)

It is in the above context that themes of community-based control and empowerment should be promoted, especially by a government and political leadership which has argued that the environment issue should be considered in conjunction with the broader issues of development, such as the rights of indigenous people and security of livelihood. Failing that, home-grown self help and community control organisations based on citizenry management (the ingredients of which are crucial to a 'people-environment' based discourse) have to be activated and sustained. Already, within the nation-state, the 'people' have been moved by environmental concern towards activism, protest and other forms of 'resistance' (Brosius 1993; Hong 1987; Lian 1993; WRM & SAM 1990; Friends of Penang Hill 1991; Gurmit Singh 1993; Kalland & Persoon 1998; Kua Kia Soong 2002b, & 2005; Leigh 1998; Mamakat 2002; Neef 2005; Rosli Omar 2003; Lim Teck Ghee 1988; Lasimbang 2002). For some of the 'people', these issues have gone beyond the issue of environment as they begin to address themselves to the questions of 'legitimacy' of nation-states and their 'participation as citizens in the larger moral community' (Brosius 1993:100; also Kua Kia Soong 2002a).

At this juncture, it is also politically instructive to remind ourselves that 'peoplehood' subsumes differences; hence theoretically 'gender' and 'class' categories should not be subjugated to the primacy of 'people' analysis when the 'struggle' is located on a terrain that is specifically related to 'gender' and 'class' contradictions. But in practice, one may find that these struggles are articulated with the more popular-based 'people' interpellations (Laclau 1977:109). Whilst class as a perspective is established enough, the theme of 'eco-feminism', also requires serious rethinking among scholars and activists involved in the environment discourse. Thus, both developmentalism and environmental degradation confront women not only as 'class' (e.g factory workers, landless peasants, etc.) or 'people' (e.g as Penans' or 'Orang Asli'), but also as 'gender'

(as women). In the rural society of the Asian region, women, being the 'daily managers of the living environment' with "a profound knowledge of the plants, animals and ecological processes around them" (Suryakusuma 1994:55; for Orang Asli women and indigenous knowledge, see Griffen 2001; Nicholas, et al. 2003), may find such capacities being slowly eroded by the forces of modernisation, which are part and parcel of 'developmentalism'. Women are also the majority of the underprivileged class who are victims of environmental degradation (Seghor in Dankelman & Davidson 1988:xii; Buckingham-Hatfield 2000; Rodda 1993). Being the guardians of the household and subsistence economy, women's connection with nature is immediate and urgent and they "have exhibited extraordinary resilience and energy in impoverished and dangerous environments" (Suryakusuma 1994:55; Dankelman & Davidson 1988:vii). On the political front, they are also playing an important role in environmental conservation and management. Eco-feminism combines the specificity of women's struggle in the face of assault on the environment by developmentalism (the power-capital-environment discourse) and domination with non-gendered class and people-oriented struggle against the same (Shiva 1988).

The 'State of the of the Malaysian Environment' also mentions the importance of empowering environmental education (CAP & SAM 1996:46-47) Deprived of first hand experience of indigenous forms of environmental knowledge, it is imperative that environmental awareness of the environmental discourse, especially to counteract the dominant developmentalist ideas of the day, are inculcated into the minds of the new generation of Malaysians through some form of education, both formal and informal. It is crucial for such education to counter 'the dominant culture and lifestyle that pervades Malaysian society today' which 'is one that is imitative of the western culture', being 'materialistic, acquisitive and waste-oriented'. Such a 'consumer-culture' oriented society is destructive of the environment as it promotes irrational and wasteful use of scarce resources which are non-renewable (CAP & SAM 1996: 47).

Several scholars have researched on the issue of education and the environment including the Malaysian context (Graves 1998; Wain et al. 1998; Sharifah Zarina Syed Zakaria 2007; Tengku Adnan 2001; Pudin 2006; 2007). The writers' research and overview of the issue reveals that education in Malaysia is a continuing effort towards further developing the potential of individuals in a holistic and integrated manner (Ministry of Education 2004). Thus, the school curriculum is structured in such a way so as to produce trained and educated citizens who are intellectually, spiritually, emotionally and physically balanced and harmonious. These good values are instilled based on a firm belief in and devotion to God. To be able to become a developed country by year 2020, Malaysia has made it a policy not only to have scientifically and technologically literate citizens (Sharifah Maimunah 2003:40), but they must know and be aware how to maintain sustainable development. This can be accomplished if the children in schools today are prepared with an education that teaches and shapes

their thinking and behaviour towards the importance of a sustainable development.

The Ministry of Education (MOE) in Malaysia has played an important role in enhancing environmental awareness to support sustainable development in all schools in Malaysia. In line with the National Education Policy, *Environmental Education across the Curricular* has been introduced in both primary and secondary schools since 1998 (Pudin et al. 2007:5, Tengku Adnan 2001). Environmental Education is not taught as a single subject but taught across the curriculum, where every subject have an environmental value integrated in the syllabus (CDC 2003, MOE 2004). This is in line with Chapter 36 of Agenda 21, which states that:

Education, including formal education, public awareness and training, should be recognized as a process by which human beings and societies can reach their fullest potential. Education is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making. Both formal and non-formal education is indispensable to changing people's attitude so that they have the capacity to assess and address their sustainable development concerns. (Pudin 2006).

In line with the recommendations of Agenda 21 as mentioned above, strategies relating to environmental awareness through education in Malaysia were proposed. Among others they include (Pudin 2006:2)

1. To inculcate environmental values across curricular in all subjects
2. To integrate environment and development into educational activities from school to tertiary institutions
3. To review educational curricula at all levels to ensure a multidisciplinary approach in environmental and developmental issues.

It is recognised that environmental awareness should be nurtured, as it is very crucial more so with the escalating environmental problems that require immediate attention (MOE 2004; T. Adnan 2001). With rapid population growth and development along with global competition for foreign capital among many countries, the world's natural resources are being depleted and the environment under threat. Malaysia is no exception. The need for sustainable development becomes all the more urgent. Thus, as a developing country, Malaysia must ensure, its citizen beginning with those in schools are well informed and educated about the concept of 'Sustainable Development'. In this context, sustainable development refers to "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Earth Charter 2000).

The understanding of concepts and knowledge about the environment can be obtained and its crucial role in development can be understood if these important facts are included in the school curriculum or taught creatively to the

students. Formal education can provide basic knowledge and important values about the environment to individuals since in early years. Thus, the education system should place the learning about the environment as important as the learning of other basic skills such as reading, writing and mathematical literacy. Education about the environment should be a continuous learning process where individuals become aware of their environment and acquire knowledge, values, skills, and experiences to handle environmental problems for the present and future generations.

As this article has tried to demonstrate, Malaysia, as a developing country is facing serious environmental problems. Malaysia's resource base is rapidly deteriorating, as evidenced by deforestation, pollution, of air and water, and extinction of wildlife species. The degradation of the earth, are faced along with other challenges of the modern world. Formal education system must be able to meet the need to continuously educate the public on environmental issues. Various organizations such as the media, NGO or private sectors should also assist and support this pursuit in campaigning to promote environmental awareness and to take action in minimizing the damage on the environment. The task is huge and endless but efforts must be increased to ensure the environment receives the protection it deserves.

As mentioned earlier, in Malaysia, Environmental Education is not taught as a single subject, but it cuts across the curriculum. In the science syllabus of primary schools, objectives of science education are related to the nurturing of environmental awareness among students. These include (CDC 2003):

1. Create an awareness on the need to love and care for the environment.
2. Stimulate pupils' curiosity and develop their interest about the world around them.
3. Inculcate scientific attitudes and positive values.

To stress these objectives, the syllabus also states the 'Scientific Attitudes and Noble Values' that must be acquired by students at the end of each lesson. These attitudes and values are also listed in the syllabus. They include (CDC 2003):

1. Having an interest and curiosity towards the environment.
2. Being responsible about the safety of oneself, others, and the environment.
3. Realizing that science is a means to understand nature.
4. Appreciating and practicing clean and healthy living.
5. Appreciating the balance of nature.

In Malaysia, the learning of science is not limited to classroom teaching only. The syllabus also specifies outdoors activities that could be carried out to make the lessons more interesting and real. Outdoor activities are not restricted in the vicinity of the school compound. Field trips to zoo, museums, science centres, research institutes, mangrove swamps, and factories are also recommended. Through this real life experience, students are brought into contact

with nature and are given the opportunity to apply the knowledge they have learnt. This is a good way for students to learn about nature and the environment by placing themselves in real life situations. Through these activities, students will become more alert to their environmental surroundings.

Malaysian primary school science syllabi, contain knowledge about the environment (CDC 2003). The syllabus in Year 4-6 (age 10-12 years) of the primary education contains a specific topic on environment, 'Investigating the Environment'. Based on a case study, it is found that every subject, especially science subject emphasises the environmental awareness factor in its curriculum contents (Sharifah Zarina 2007). It is imperative that science be taught not only for the sake of passing examinations or memorizing facts, but should also include knowledge emphasising how science directly or indirectly affects the environment. Based on the study, even though the culture of respecting nature or environment is quite low among the students in Malaysia, they do understand the importance of the environment in their lives. So, a syllabus that can produce both scientifically literate and environmentally friendly citizens should be the main focus when undertaking education reforms. If the students do not have the proper knowledge and understanding of causes and effects of environmental issues, they will not be able to make correct decisions when confronted with environmentally related questions and dilemmas in their future working lives.

CONCLUSION

A social science perspective on the environment should speak for the subjugated voices from within the nation-state and beyond. Malaysia is part of a bigger historical, geographical and cultural landscape which shares the same concern in relation to the environment issue, both nationally and globally. The theme of environment should unite rather than divide the peoples and scholars in the bigger region, either of South East Asia or Asia. Beyond the region, a "people-environment" oriented discourse should not only bring different groups of "subjugated" voices together but should also enjoin them to the rest of humanity all over planet Earth, who are equally threatened and dominated by developmentalism, and a notion of progress, backed by power and capital, which continues to expropriate from mother nature. It is only through the sharing of the above discourse that social scientists will be able to have a common platform committed to critical scholarship that challenges the rhetoric and myths surrounding the dominant discourse on the environment.

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