Notes on the State Sustainability Strategy.

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Wednesday, May 01, 2002

We congratulate the Gallop Government on the establishment of the Sustainability Policy Unit and the release of the consultation paper "Focus on the Future." The development of a State Sustainability Strategy is a welcome recognition that "the state of the actions has not matched the scale of the environmental and social issues we face." The sections titled 'A challenge and an opportunity' and 'Global and local sustainability issues' effectively canvass the magnitude of the challenges facing our society, and the urgency with which creative solutions must be brought to bear.

It is also clear from the timelines established that the community is being encouraged to participate meaningfully in these early stages of the process, a sign that an appropriate balance of government leadership and community ownership is being attempted.

The Greens (WA) have a 12 year history of grass-roots participatory advocacy for ecological, social and economic sustainability. We look forward to working with the Government on bringing these aspirations to fruition.

The transition to a sustainable society will not be a rapid or an easy one. In the interim, sections of the community will no doubt continue to press for the urgent preservation of threatened ecosystems, the rejection of certain industrial projects or agricultural techniques, and the amendment of locally destructive planning decisions. The frequency of these community-driven campaigns (and the level of political, legal and bureaucratic resistance they confront) can be used as a crude indicator of the success or otherwise of sustainability initiatives.

Such initiatives will need to take many forms. As the discussion paper correctly cites, "the continued poverty of the majority of the planet's inhabitants and excessive consumption by the minority, are the two major causes of environmental degradation." This degradation has reached crisis point in some parts of the world, with climate change, overharvesting and ecosystem collapse set to trigger waves of environmental refugees and strain existing political fault lines to breaking point. The need for action is urgent and immediate.

1. What is sustainable development?

The key elements of sustainable development were outlined by the United Nations Commission on Environment in 1978 (in the document commonly referred to as the Brundtland Report), and endorsed by more than 150 national governments, including Australia, at the 1992 'Earth Summit' in Rio de Janeiro.

The definition cited in the Brundtland report, "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" is similar to the definition adopted in the Australian National Strategy for Ecologically Sustainable Development (ESD): "ESD is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends."

Jacobs (1999) describes six core concepts which are essential for achieving sustainable development:

1. Environment-economy integration: ensuring that economic development and environmental protection are integrated in planning and implementation.
2. Futurity: an explicit concern about the impact of current activity on future generations.
3. Environmental protection: a commitment to reducing pollution and environmental degradation and to the more efficient use of resources.
4. Equity: a commitment to meeting at least the basic needs of the poor of the present generation (as well as equity between generations).
5. Quality of life: a recognition that human well-being is constituted by more than income growth.
6. Participation: the recognition that sustainable development requires the political involvement of all groups or 'stakeholders'.

Against these principles, it is difficult to express much enthusiasm for the definition adopted by the Western Australian Government: "Sustainability is the simultaneous achievement of environmental, economic and social goals." Which goals? Set by whom? This definition is unfortunately broad enough to encompass 'business as usual' scenarios.

> **Recommendation:** We would prefer to see the Strategy rest on one of the commonly accepted definitions of sustainability which embraces the radical, long-term nature of the challenge. We would welcome more discussion on this issue and recognise that no single definition can encapsulate the concept to everyone's satisfaction.

2. Acknowledging unsustainability
One of the mixed blessings of responding to the consultation paper has been the recognition that while many issues have been well canvassed in the paper, official Government policy across many agencies is sharply at odds with the sustainability agenda.

We believe that the discussion paper has correctly identified key threats to sustainability in Western Australia as overconsumption, energy intensity, a large ecological footprint and a heavy reliance on export of non-renewable resources. The unique geography and history of Western Australia has also led to one of the most extreme population concentrations of any state in the world, with the vast majority of the population, resource consumption and political power situated in Perth while the regions suffer from falling population, political powerlessness and lack of services. Also acknowledged are catastrophically high levels of youth suicide and depression, and massive inequalities in health, welfare and opportunities between Aboriginal Australians and the broader community.

For more than 170 years, the Western Australian economy has been based largely on unsustainable industries including:
§ monocrop agriculture involving large-scale landclearing;
§ the introduction of goats, sheep and cattle which have drastically modified vast areas of the rangelands;

§   Mining and processing gold, iron ore and other non-renewable minerals;
§   Extraction and processing of non-renewable fossil fuels.

This list is not intended as a criticism of our ancestors, who did what they had to do to survive in a new land; only to recognise the limits that some of these practices now face.

Lastly, it must be recognised that the strategic value of Western Australia's resources, the centralising nature of the Federal system of government and the impacts of corporate globalisation mean that many political decisions which affect our lives are made in Canberra and financial capitals around the world. Establishing an ecologically sane society under these conditions is no trivial task.

3. Industrial Growth or Sustainable Development?

The discussion paper clearly points out the need to integrate social, environmental and economic policy. One of the key issues which is *not* addressed is the Government's position on the desirability of continued economic growth. This has emerged as one of the key contested issues in the debate on sustainability, and it is unfortunate that this was not made explicit in the consultation paper.

We consider that policies promoting the unrestrained growth of the monetary economy lie at the heart of the crisis of sustainability. Western Australia must urgently design and implement sustainability indicators such as the Genuine Progress Indicator (see below) and move away from a society geared to reckless expansion of the monumentally one-dimensional Gross Domestic Product (GDP).

> "The GDP is simply a gross measure of market activity, of money changing hands. It makes no distinction whatsoever between the desirable and the undesirable, or costs and gain. On top of that, it looks only at the portion of reality that economists choose to acknowledge – the part involved in monetary transactions. The crucial economic functions performed in the household and volunteer sectors go entirely unreckoned. As a result the GDP not only masks the breakdown of social structure and the natural habitat upon which the economy – and life itself – ultimately depend; worse, it actually portrays such breakdown as economic gain."

> "By the curious standard of the GDP, the nation's economic hero is a terminal cancer patient who is going through a costly divorce. The happiest event is an earthquake or a hurricane. The most desirable habitat is a multibillion dollar Superfund [toxic waste cleanup] site. All these add to the GDP, because they cause money to change hands. It is as if a business kept a balance sheet by merely adding up all 'transactions,' without distinguishing between income and expenses, or between assets and liabilities."
> (Cobb, Halstead & Rowe 1995)

One infamous example is provided by the Exxon Valdez oil spill, which polluted a vast stretch of Alaskan coastline but showed up as an impressive boost to the State's GDP. In the words of Kalle Lasn, "Economists have to learn to subtract."

We firmly believe that one of the most dangerous actions that the Government could contemplate at this point would be to attempt to 'grow' our way to sustainability.

The argument runs that with more economic growth we will be able to afford more sophisticated environmental monitoring, cleanup and rehabilitation technologies, and also solve social inequalities along the way by providing more wealth to go around. As Herman Daly has pointed out, this approach tends to treat the planet as a 'business in liquidation', recognising no value in ecosystem services (since they are provided free of charge by the earth) or social transactions such as childcare or volunteer work (since they are provided free of charge as part of the 'love economy').

The consultation paper quotes two telling statistics: "To be sustainable we should be aiming to reduce the total ecological footprint of our economy by at least half over the next 10 to 20 years" and the UN/World Business Council on Sustainable Development call for a "10-fold reduction in our consumption of resources and a 20 fold increase in resource efficiency by 2040". There is simply no room for more undifferentiated growth if these targets are to be taken seriously.

> **Recommendation:** One of the cheapest and most far-reaching steps the Government could take would be to dump the GDP as an indicator for policy formulation and introduce a suite of new mechanisms including corporate environmental and social performance indicators, ecological footprinting and the Genuine Progress Indicator. These indicators force policy makers to clarify exactly what form of growth they are promoting.

> **Recommendation:** that the Sustainability policy unit clearly rejects undifferentiated economic growth as a component of any Sustainability Strategy.

4. A Genuine Progress Indicator (GPI)

In 1994, the US NGO 'Redefining Progress' developed the *Genuine Progress Indicator* (GPI), a sustainability indicator intended as 'a comprehensive measure of national health expressed in economic terms.' (Cobb, Glickman & Clark 2001).

The GPI was developed to provide a more inclusive single-indicator alternative to the Gross Domestic Product (GDP) and to demonstrate how social breakdown and environmental degradation could occur within an 'economy' that appeared to be booming.

Like the GDP, the GPI is based on a measure of personal consumption; the physical exchange of goods and services in the money economy. Unlike the GDP, GPI then *subtracts* an amount for income inequality, costs of crime and other 'defensive' expenditures, family breakdown, depletion of resources and loss of ecosystem services. *Additions* are then made for unpaid housework, volunteer work and other essential social transactions which are invisible to the GDP.

The relative weightings for each of the different factors (more than 20 in the final calculation) are intended to provoke discussion, leading to different (but similar) outcomes depending on the assumptions underlying each factor.

The links between economy, ecology and society are brought into sharp focus when relative gains and losses in each sphere are traded off against each other instead of remaining invisible. Comparisons of GDP with GPI for the US and Australia show that

since the early 1970s, despite a steadily rising GDP, the loss of productive ecosystems and social decay has seen the GPI stagnate and at times fall into decline (Hamilton 1998).

The indicator is extremely broad brush and it would be dangerous for any society to rely solely on an indicator as simplistic as the GPI to make policy decisions. However in concert with more specific and locally tuned sustainability indicators, the GPI could provide the public with a relevant, thought provoking basis on which to evaluate environmental, social and economic performance from year to year.

The indicators we choose to guide our path to sustainability should be public, relevant, understandable and grounded in social and ecological reality.

> **Recommendation:** That the government, NGOs and community groups jointly develop locally appropriate, robust sustainability indicators incorporating the three "C's": Comparable (across time and between communities), Complete, (in scope and application across sectors), and Credible (reliable and trustworthy.)

5. Energy

It is noted in the discussion paper that Western Australians have one of the highest rates of energy consumption in the world (resulting in emissions of 56.36 Mt pa of CO_2-equivalent.) This is partly related to long-term, ample supplies of cheap coal and natural gas. It is also a consequence of following an American model of urban and suburban development which emphasises low density housing, a reliance on private motor vehicles, a centralised 'business' district and what some have termed a worship of the private car. We are very much addicted to cheap oil, a habit hardly restricted to Western Australia but one due for a radical shock in the near future.

Even now, the Minister for Energy is pursuing an electricity reform process which has as its ultimate aim cheaper electricity for big industrial users, to make the State more attractive for international investment. In this most crucial of sectors, the Sustainability agenda is so far no more than an afterthought.

The private renewable energy industry has had almost no luck at all in breaking Western Power's energy monopoly. A small number of high profile Western Power-owned pilot plants have been established, making no appreciable inroads into WA's energy portfolio but providing Western Power with spectacular PR imagery to use while planning the next generation of coal- or gas-fired power plants for baseload electricity. Correspondence between our office and private renewable proponents has made us aware of incredible levels of frustration and left us in no doubt as to why only a tiny fraction of the entire contestible market is served by non-fossil energy (a single provider of landfill gas power who is now being squeezed by Western Power and may be driven out of the market).

Controlling our energy use will be one of the most serious challenges faced by Western Australia, because despite our high standards of education and reputation as innovators, we are still one of the most energy-profligate societies on earth.

There is no longer much serious argument that emissions of greenhouse gasses have combined with high levels of land clearing to force an increase of heat-trapping gasses in the atmosphere (and the oceans to an unquantified extent). This forcing is having measurable impacts on global and local climate patterns. Transportation and electricity are responsible for the vast majority of these emissions; coal, oil and natural gas are the largest culprits.

Instead of pursuing an aggressive program to cut our emissions, the State Government (in the absence of coherent leadership from the Federal Government) appears to be hoping the problem will go away. The State Greenhouse strategy has not been heard from in some time; in the meantime, there are estimates that State emissions are slated to rise by as much as 30-40% from 1999 levels once Burrup gas projects, other heavy industry and new power plants are factored in. WA has refused to pay the Australian Greenhouse Office for a State emissions audit since the last round in 1995, and as a result we are flying blind. With the rest of the industrialised world (with the tragic exception of the US) committed to reducing emissions, it will not be long before Western Australians will be able to boast the highest per-capita emissions in the world. If this is allowed to occur, it is difficult to see how remaining elements of any strategy for sustainability will hold much credibility, here or overseas.

We must also comment on unsubstantiated assurances that we are only considering gas as a 'transition fuel' along the way to a hydrogen economy. Unless we see some sign of home-grown support, incentive and public subsidy for hydrogen fuel cell research, it is difficult to shake the impression that current Government policy is to exploit our gas reserves as rapidly and completely as possible before turning to considerations of what to do next. Recent statements by the Minister for Energy that coal would still be considered for new baseload plant if it was economically competitive give the lie to statements by other Ministers that gas is our future transition fuel.

In truth, Western Australia possesses an embarrassment of renewable energy resources, and our current wasteful uses of energy promise many opportunities for efficiencies and reductions. A key part of the sustainability strategy should lie in identifying existing subsidies and incentives for fossil fuel industries and progressively redirecting them toward renewable energy. Coupled with education strategies (see below) and a revolution in urban planning, similar combinations of pricing, taxation and legislative reforms will be necessary to reduce domestic consumption of fossil fuels. It is recognised that the Government in many ways has already begun to progress these initiatives, albeit in a highly fragmentary manner.

> **Recommendation:** that the Sustainability policy unit clearly articulate that fossil fuel combustion is responsible for the bulk of greenhouse gas emissions; that carbon sequestration will not be able to account for more than a small fraction of emissions; and that urgent steps are needed to transform WA into a carbon-light economy.

> **Recommendation:** that arguments relating to the relative carbon benefits of producing emissions 'efficiently' in WA rather than 'inefficiently' elsewhere in the world be examined critically and discarded if found to be based more in economic self interest than verifiable ecological reality.

> **Recommendation:** that the State adopt a greenhouse strategy committed to measurable, substantial emission reduction targets.

6. Industry

As mentioned above, some State Government departments (chiefly the Office of Major Projects, formerly DRD), are locked into a development paradigm which necessitates the State reducing electricity costs and removing perceived impediments to rapid environmental approvals for international investors. The kind of investment we wish to attract is never qualified; it is presumed we are still seeking the attention of multinational corporations with offers of generous public funding to site energy-and water- intensive gas or mineral processing plants. (In truth, if industries such as these can not stand on their own two feet, then precious public funds should not be wasted on trying to prop them up. Recent examples such as Ord Stage 2 and Oakagee come to mind.)

This paradigm was clearly articulated in the Interim Report of the 'Review of the Project Development Approvals System', January 2002, which has as its outcome "Western Australia being the global location of choice for project development." Issues of sustainability are dealt with only superficially in the Interim Report, with no articulation of how proposed international investments will be screened according to sustainability criteria, no recommendation for formal Social Impact Assessment, and no suggestions for how local communities can take meaningful control of the decisions which affect them. This document has been understood within the conservation movement as something of a 'wish list' from mining and heavy industry proponents, which makes it an unfortunate choice for citation in the list of 'existing Government initiatives related to sustainability' (consultation paper page 6).

In an "eco-efficient and dematerialising global economy" we question any insistence on restructuring our environmental impact and Aboriginal land rights framework in order to remove percieved barriers to foreign investment.

Water has emerged as another flashpoint, with inconceivably generous offers of huge volumes of water to large proponents such as Wesfarmers/Marubeni (Ord 2) and Rio Tinto (HISmelt) at the same time as the serious limits to water resources in the South-West are being absorbed by most other sections of the community. It is clear that the community and industry is going to have to pay its way for water, which will mean an end to the perverse pricing scale which at present prices water at a diminishing rate the larger the customer.

We would welcome opportunities to contribute to an industry strategy that sought high employment, low material, water and energy intensity, innovation and profits that remain within the community.

7. Social Sustainability

The consultation paper makes a strong case for concern over high rates of suicide and depression and the incidence of a high long-term unemployment rate. Of equal concern is the fact that Aboriginal Australians still live in third world conditions and suffer from catastrophic rates of infant mortality and morbidity, high incidences of preventable

diseases and declining life expectancies. Clearly, a significant proportion of our population is not sharing in the 'wealth' generated by our economy.

Women still face entrenched, systematic disadvantages in modern Western Australian society, likely to find themselves underpaid for the same work relative to men, blocked from professional advancement by invisible 'old boys networks' and subject to radically disproportionate levels of sexual abuse and domestic violence.

It is not possible here to present arguments on the causes of these entrenched phenomena; but it seems plausible that the very conditions which underlie the unsustainable nature of our modern economy (impersonal institutions, undifferentiated economic growth, concentrations of wealth and power in fewer hands, replacement of labour with capital, militarism etc) also contribute to these serious social problems.

In the course of analysing and re-designing our institutions and economies according to principles which emphasise ecological integrity, local control and democracy, equity and diversity, we may find ourselves confronted with the sources of these deep seated social ills. Most importantly, the sustainability process must be informed by the perspectives of Indigenous Australians, women, and other groups whose voices are presently marginalised in economic discourse.

8. Education
Education about the practices and principles of sustainability are the cornerstone of hopes for a better future. When students of all ages can see government and industry leading by example, there will be huge potential for rapid change and innovation.

'Education' can encompass anything from information provision to an invitation to participate actively in policy development and community renewal. It is through this process that a cultural shift can occur in which the young take on the sustainability agenda in ways which we can not yet imagine. It is encouraging to note that this process is well under way as a result recent curricular reviews, and that Western Australia boasts impressive tertiary facilities for education on environmental science and ethics and sustainable development. These assets must be harnessed, and any further attempts to starve the education sector of funding should be resisted.

9. Questions posed in the Consultation Paper
Aside from the issues canvassed above, we have focused our responses to the 'Questions' posed in the Strategy on Governance issues.

Sustainability, Governance and Society
- **How can governance and democracy be enhanced to achieve sustainability?**
  Participatory democracy, local ownership of resources and access to local decision making are acknowledged as key principles of sustainability. In a State such as Western Australia, these initiatives will take time, but there are many short-term steps we can take, including:
  - Strengthen the role of local government through lobbying for constitutional reform, establishing a LG complaints tribunal for dealing with matters which do not require the direct involvement of the Minister, encourage greater accountability within LG and greater public participation in LG processes and elections.

- o Review Parliamentary Standing Orders to bring speaking times in the Legislative Council back to manageable levels so that business can be debated in a timely manner.
- o Advance a motion requiring opposition and private members bills to be debated in Parliament within reasonable timeframes to allow minority voices to be heard in Parliament.
- o Abandon the practices of signing State Agreement Acts with project proponents which reduce or remove the rights of local governments and local communities to impose conditions on major industries.
- o Investigate devolution of some State and Federal powers to Regional Councils to be held directly responsible to local electors.

ⁿ **What institutions do we need to establish and change to help achieve sustainability?**
Many agencies within Government have clearly recognised the challenge of Sustainable Development and are repositioning themselves to meet these challenges. A number of others however, are lagging behind or indeed moving aggressively in the opposite direction. Acquainting these agencies with the principles of sustainable development is one of the key challenges facing the community.
- o Chief among these is the Office of Major Projects, which apparently sees its role as attracting overseas investment to exploit Western Australia's non-renewable resources as rapidly as possible. OMP does this by facilitating state subsidies for chosen industries (known derisively within the industry as 'picking winners'). The OMP, with no conceivable role to play in the sustainability process, should be disbanded.
- o As mentioned above, Western Power has acted aggressively to prevent private renewable energy generators from competing with its generation business, in accordance with its Act. These practices must be curtailed and it is hoped that the proposed restructure of WA's electricity markets will go some way toward achieving this.
- o The Pastoral Board must take some responsibility for initiating radical reform into stocking rates and the appropriateness of stocking some stations at all.
- o The Water Corporation, while demonstrably aware of the impact of climate change on its core business, is proposing fossil-fuel fired desalination plants as a solution to the water crisis. The Water Corp must acknowledge that our water use is miserably inefficient in comparison to world's best practice, and must initiate serious demand management proposals which don't further pressure other natural resources.
- o As mentioned, there is a serious gap in climate change planning, with the draft Greenhouse strategy already months late. A state Greenhouse office must be fast-tracked, with cross-agency support and adequate resourcing. In particular, CALM and the CSIRO should investigate the impacts of climate change on species transmigration, whereby rapid changes in climate may find some species unable to migrate fast enough to keep up with favoured climate conditions. Contingency planning is essential.
- o We support the Environmental Alliance model for establishment of new institutions to advance the sustainability agenda (see below).

n **How can Government promote good corporate citizenship?**
We wonder whether this term might not in fact be an oxymoron, since a corporation is, in essence, a legal entity constituted to maximise the rate of return to the investors while protecting directors from legal liability for the corporation's actions. The argument has been raised persuasively at an international level that the massive political and economic power of transnational corporations poses a key threat to global ecological and social sustainability. We support a radical re-think of corporate rights under law, and advance the following proposals:
   o Changes to State and Commonwealth Corporations Law to provide for corporate deregistration as a last resort against corporations convicted for repeated serious breaches of local laws.
   o Introduce laws to provide for prosecution of senior corporate officials with industrial manslaughter in the event of fatal industrial negligence.
   o Pass industrial relations legislation returning formal powers to the Trade Union movement which recognise in law the rights of workers to organise and bargain collectively with employers.
   o Continue to promote schemes such as the Golden Gecko awards which recognise outstanding environmental performance in the mining and minerals processing industries. The Gecko should return to its original premise of honouring excellence and setting of new standards for industry, rather than rewarding mere compliance with existing regulations.
   o Promote corporate environmental and social performance indicators, investigating national and international schemes for credible, comparable and complete indicators of corporate performance.
   o Support and promote the work of the WA Sustainable Industry Group.

n **What legal framework and law reform is required for sustainability?**
Some aspects of law reform for ecological sustainability have already been initiated by the State Government and discussed in this submission, but clearly we have a long way to travel. We recommend "The Law of Sustainable Development," A report produced for the European Commission by Michael Decleris, LL.M., J.S.D. (Yale), Former Vice-president of the Hellenic Council of State. The Greek experience with radical law reform along sustainability criteria could well be instructive for Western Australia. (An extract from this document is reproduced in Appendix 1.)
   o Legislation which curtails native vegetation land clearing, bans uranium mining and bans the release of GMOs into the environment is urgently required. A rapid audit should be undertaken to legislate against activities which are clearly in contradiction to the principles of sustainability.
   o The establishment of an independent Sustainability Commission to co-ordinate the sustainability agenda and assess projects is recommended.
   o The establishment of a Social Assessment Authority to audit the social impacts of proposed projects is recommended. Alternately, the Social Impact Unit should be reconstituted within the DEP.
   o The EPA should be returned to its former state of independence, and properly resourced to enable it to carry out its monitoring and inspections role. The EPA's internal assessment criteria must be toughened to

provide a genuine assessment role, rather than the present weak insistence on merely 'minimising' the damage to the environment.

- o Reform of planning laws to allow for third party appeal rights against planning decisions should be enacted.
- o Reform of Aboriginal Heritage and Native Title legislation to provide for veto powers where industrial development is deemed wholly incompatible with sites of significance.

- n **How should Government's purchasing power be used to promote sustainability and stimulate sustainable businesses?**
  - o The State Government maintains/leases a large vehicle fleet which should be converted to LPG and biodiesel as rapidly as possible.
  - o State Parliament should become a showcase for sustainability, powered by renewable energy, featuring water-wise native gardens, composting toilets, certified GMO-free organic food in the dining room and improved recycling facilities.
  - o An audit of State Government purchases should be conducted to identify opportunities for reduced resource consumption, energy efficiency and feasability of adopting trial or prototype technologies.
  - o State Government power procurement guidelines must be overhauled to facilitate large-scale uptake of renewable energy.

10. Implementation

Without firm but realistic implementation timetables, performance targets and backing in law, the State runs the risk of creating yet another volume of grandiose 'motherhood' statements which will be quickly forgotten as more immediate political imperatives re-assert themselves. This has happened many times at a global and local level, as vested interests, lack of adequate resources and force of habit have blunted and watered down implementation of sustainability plans.

A single policy unit within the Ministry of Premier and Cabinet will probably not possess the institutional 'clout' to guide a whole-of-government effort once the Strategy has been drafted. Therefore, the organisation eventually chosen to guide and implement the WA Sustainability Strategy should be an independent statutory body established with a clear mandate to progress the objectives of the Strategy. Key government departments should undertake a public sustainability audit, to identify whether or not their activities are impeding or assisting the principles of sustainable development. We are supportive of the model advanced by the Environmental Alliance, which envisages an independent Sustainability Commission receiving advice from the EPA, Treasury and a new Social Assessment Authority to formulate true triple bottom-line assessments of projects and policy initiatives. As part of the second round of consultation we would like to see this model considered and options for reform canvassed.

Conclusion

Once again, we congratulate the State Government on initiating the process which will lead to the State Sustainability Strategy, and we look forward to contributing further to this process. It must be admitted that the process will not be painless or proceed without enormous effort, but we hope to be able to look back and identify this initiative as an important milestone on the path to the most important social, economic and ecological transformation of our time.

References

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Appendix 1: Twelve Principles of Sustainability
(from "The Law of Sustainable Development" A report produced for the European Commission by Michael Decleris, LL.M., J.S.D. (Yale), Former Vice-president of the Hellenic Council of State

- The **first** principle of public environmental order establishes the obligatory nature of this control system aimed at the evident general good not only of the present generation but those to come: sustainable development must not be abandoned to market forces but must be a responsibility of the state.

- The **second** principle of sustainability requires all public policies to be harmonised and prohibits any further reduction or degradation of natural, cultural and social capital, because even what has been left after ruthless development may well not be enough for survival.

- The **third** principle demands respect of the carrying capacity both of man-made systems and of ecosystems, to prevent the construction of still-born, hypertrophic man-made systems which drag ecosystems down towards their destruction.

- The **fourth** principle demands correction of that error where this is still possible, i.e. the restoration of disturbed ecosystems so that the reduction of natural capital will be averted.

- The **fifth** principle enjoins the protection of biodiversity in order to preserve the stability (equilibrium) of ecosystems.

- The **sixth** principle, that of common natural heritage, strives to secure for the sake of all the vital nucleus of natural capital, i.e. untamed nature where it exists and the ultimate reserve of life.

- The **seventh** principle demands restrained development in fragile ecosystems.

- The **eighth** principle, that of spatial planning, calls for the overall planning of balance between man-made systems and ecosystems, so as to control and maintain their stability and to improve the quality of the former.

- The **ninth** principle, that of cultural heritage, is interested in the stable continuation of manmade systems and the qualitative (spiritual) character of development.

- The **tenth** principle, that of sustainable urban environment, strives to reverse the advancing decay of modern cities, and to restore quality of life therein.

- The **eleventh** principle, that of the aesthetic value of nature, also serves qualitative development and the satisfaction of man's aesthetic needs, and

- The **twelfth** principle establishes a sound system of values and environmental awareness in people, as the real guarantee of the entire control system.