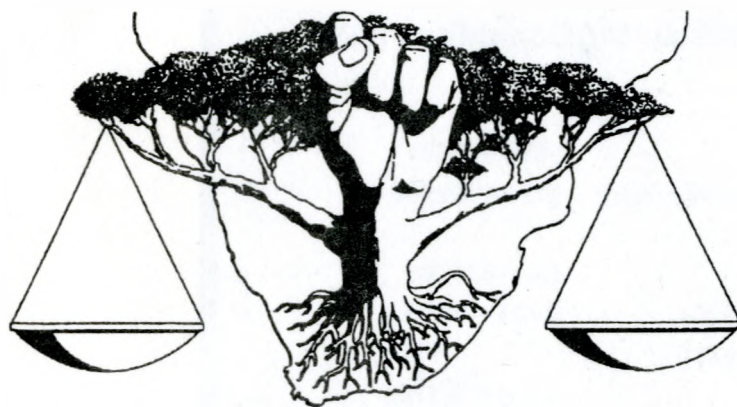


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Greening the RDP

People, environment, development



Report of proceedings

Environmental Justice Networking Forum
Constitutive Conference

Kempton Park Conference Centre

25-27 November 1994

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(See the contact details at the back of this document).*

Guide to acronyms

ANC	African National Congress
CBO	Community Based Organisation
CEN	Community Environment Network
COSATU	Congress of South African Trade Unions
DBSA	Development Bank of South Africa
DEA	Department of Environment Affairs (otherwise referred to as DEAT)
DEAT	Department of Environment Affairs and Tourism
DMEA	Department of Mineral and Energy Affairs
DTI	Department of Trade and Industry
DWA	Department of Water Affairs and Forestry
EDA	Environmental and Development Agency
EIA	Environmental Impact Assessment
EMG	Environmental Monitoring Group
EMP	Environmental Management Programme
EMPR	Environmental Management Programme Report
EPZ	Export Processing Zone
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GEM	Group for Environmental Monitoring
GEIS	Government Export Incentive Scheme
IAP	Interested and Affected Parties
IDC	Industrial Development Corporation
IDRC	International Development Research Centre
IEF	Industrial Environmental Forum
IEM	Integrated Environmental Management
IHRG	Industrial Health Research Group
IPC	Integrated Pollution Control
MEWUSA	Metal and Electrical Workers' Union of South Africa
MEC	Member of Executive Council
MLL	Minimum Living Level
NEAF	National Environmental Advisory Forum
NEDLAC	National Economic Development and Labour Council
NGO	Non Governmental Organisation
OAU	Organisation of African Unity
PPHCN	Primary Progressive Health Care Network
RDP	Reconstruction and Development Programme
RSS	Rural Support Services
SAAU	South African Agricultural Union
SACOB	South African Chamber of Business
SACP	South African Communist Party
SADC	Southern African Development Community
SANCO	South African National Civics Organisation
SCOWSAS	Standing Committee On Water Supply and Sanitation
SHE	Safety, Health and Environment
SME	Small and Medium scale Enterprises
SIA	Strategic Impact Assessment
SSM	Small Scale Mining
TRAC	Transvaal Rural Action Committee
WFC	Wilgespruit Fellowship Centre
WLS	Wildlife Society of Southern Africa

Conference resolutions adopted by plenary

1. Government conference on environmental structures

1. This conference resolves to support Minister Kader Asmal's call for an inclusive, national government-sponsored conference to consider the recommendations made by the Alliance Policy Mission document on structures for environmental management, to consider:

- a National Environmental Advisory Forum (NEAF);*
- a multi-disciplinary inspectorate;*
- participation of civil society and the democratisation of the workplace;*
- the debate concerning national versus provincial competencies on environment.*

This conference should be held not later than July 1995.

2. Environmental justice

Participants in this conference resolve:

- to organise with the poor and the marginalised of our people to take forward the struggle for environmental justice;*
- to put the demand for popular justice and social transformation at the top of the environmental agenda in South Africa;*
- to build and consolidate our relationship with allies in government, civil society and international people's movements.*

3. RDP white paper

This conference resolves that environmental concerns, as a basis for development, should be brought back into the RDP White Paper, as contained in the original alliance RDP document.

4. RDP and integrated environmental management

Noting that implementation of the Reconstruction and Development Programme (RDP) will have environmental impacts, the conference demands that all RDP implementation be subject to IEM guidelines and norms.

5. Land

Noting that the issue of land is integral to all environmental issues, this conference therefore supports government initiatives in this regard and urges the prioritisation of establishing provincial land claims courts and the initiation of land availability studies.

6. Women

This conference, recognising that the empowerment of women and their full participation in civil society, state and industry, is integrally linked to the multitude of environmental issues around natural resource use, therefore resolves:

to call upon government and EJNF participating organisations to take particular note of women's environmental concerns, and to build capacity amongst women to ensure their full participation in decision-making around environmental issues.

7. Language

Noting that the issue of language is crucial to the participation of people in decision-making around environmental issues, the conference calls on:

- *the government to be sensitive to this issue and to investigate ways to produce government documents in languages accessible to the majority of people;*
- *EJNF to establish a civil society working group to ensure the accessibility and dissemination of appropriate information in languages and forms accessible to people.*

8. Housing

The delivery of housing must not occur in isolation of end users. The end-user must be involved in decision-making with regard to services provided. This will require the development of a process to explore and evaluate alternative housing and service options, with particular reference to environmentally sustainable options, in participation with the end user.

This conference therefore calls upon the National and Provincial Departments of Housing, as well as the private sector, to take up these concerns with regard to all housing developments.

9. Militarism

The consolidation and expansion of the South African military contradicts people-centred reconstruction and development. This conference, being committed to exploring ways of greening the RDP, calls for:

- *dramatic downsizing of the military budget;*
- *the re-allocation of funds, skills and resources to peacefully oriented development;*
- *the reorientation of the South African arms industry to more appropriate spheres of production.*

10. Solidarity with neighbouring states

This conference, recalling the past injustices brought to bear by the apartheid state on our neighbouring states, and recognising the regional sacrifices made in solidarity with the struggle for democracy in South Africa, pledges our solidarity in the effort to reconstruct and develop the entire southern African region in a sustainable manner that meets the basic needs of all of our people.

In order to encourage the sustainable management of our shared regional resources, we call for all programmes or projects, national or international - for example, sourcing water - to be subjected to integrated environmental management procedures.

11. Conference commission findings

The regional structures and participating organisations in EJNF are requested to take the findings and recommendations of the six conference commissions back to the ground for discussion and possible adoption.

12. Waste and sanitation

12.1 Human excrement should be considered and utilised as the valuable resource that it is. Technologies or processes that, by their very nature, remove this resource from natural nutrient cycles - eg landfilling, incineration or ocean dumping of sludge - should be avoided.

12.2 Economic instruments - eg tax - should be investigated to encourage the use of returnable and standardised packaging.

12.3 As a commitment to sustainable waste management, government should lead the way by promoting the use of recycled paper in its own departments, and they should further investigate and promote the use of other recycled products.

12.4 Understanding that sanitation processes are the responsibility of communities, government must support the initiatives of local organisations to provide adequate systems through facilitating processes that create understanding and allow communities to make the best decisions.

Hazardous wastes and pollution control

12.5 An immediate moratorium is called for on all toxic imports and exports, including those for recycling.

12.6 The democratisation of policy formulation pertaining to the Integrated Pollution Control initiative, and the inclusion of a hazardous waste policy in this framework.

12.7 A period of at least six months to be given in the participatory formulation of a new hazardous waste policy.

12.8 That government should sign the OAU's Bamako Convention prohibiting toxic imports into Africa.

Introduction

David Hallowes
Conference convenor

The Environmental Justice Networking Forum's first national conference had three major objectives:

- to constitute the organisation on a national basis;
- to make policy recommendations regarding the implementation of the RDP both for submission to government and as a guide to action by EJNF participants;
- to build and disseminate the work of the IDRC/ANC/COSATU/ SACP/ SANCO International Mission on Environmental Policy (referred to here as the Mission).

EJNF was initiated at the Earthlife Africa International Environment Conference in 1992 at Pietermaritzburg. That conference mandated an interim national steering committee to guide a process of establishing an organised voice within civil society for environmental justice. It stipulated that the organisation should be formed on a regional basis leading up to the national constitution of EJNF at a national conference.

The EJNF conference is thus the culmination of a two year process. During that time, meetings were held to establish EJNF in six regions: Gauteng, Northern Transvaal, Western Cape, Eastern Cape, KwaZulu-Natal and OFS. Participating organisations include women's, rural, youth, religious and environmental organisations, unions, civics and service NGOs.

Each region sent delegations to the national conference. Two other regions, Eastern Transvaal and Northern Cape, also sent delegations which will form the focus groups for establishing EJNF in those regions.

Regional EJNF participant organisations also elected members to the national steering committee. They took office at the constitutive conference. The minutes of the constitutive session of the conference are not included here but are available from the EJNF national office.

The EJNF delegates were joined by a number of guest delegates for the conference on Greening the RDP. They included members of national organisations which represent or work with the constituencies which EJNF is developing and researchers working in the sectors covered by the conference. Government was represented by Ministers Kader Asmal (Water Affairs) and Derek Hanekom (Land Affairs), by provincial MECs, by members of standing committees in parliament and provincial legislatures and by ministry or department officials.

The conference was opened by Kader Asmal. The opening plenary gave an overview of the RDP and Environmental Justice. This was followed by the work of six commissions looking at: land and land use, water, energy, waste and sanitation, industry, and mining. A second plenary heard the reports of the commissions and considered cross sectoral issues arising, particularly in respect of housing. The closing session adopted resolutions and was addressed by Ben Turok, Gauteng

MEC responsible for the RDP.

The conference was designed to ensure the full participation of delegates. This report attempts to reflect that by giving as much weight to the discussions of delegates as to the formal presentations of speakers. It does not, however, provide a word for word account of either.

The reports of discussions attempt to explore the debates in a way which will make sense to people who were not there. They should be read alongside commission recommendations. Each commission had a very different character and there are similar differences in the style of reporting them. For example, some broke into small groups while others did not. In some, differences of opinion make it important to identify speakers while in others this is not so. Passages in italics are intended to assist the reader.

Speakers were asked to make presentations and a number of speakers also submitted papers. Papers have been used in compiling the proceedings but the constraint of space has made it necessary to edit them very severely. Readers who would like full versions of these papers should contact the authors. Other presentations were recorded by the scribes who assisted in compiling this report. While they have been written up in the form of direct speech, readers should note that they are really reports.

Some overall themes emerge strongly from the proceedings. Participation is of central concern and is closely tied to the relationships between government, business and civil society. It comes through as a precondition for environmentally sustainable development. Different technologies have obvious environmental implications but were also identified as either advancing or retarding participation.

Comparison between the different sessions shows consensus on a number of key points. Discussion in one session also frequently supplements that in another session.

Strong differences also emerge both within and across sessions. These reflect the different positions from which participants spoke, different assumptions concerning environment and development, and the contradictions which inhabit the work of development.

Speakers and delegates alike made valuable contributions in working through the issues. They did so in a spirit of open debate and I hope this report does justice to their work.

The conference was deeply informed by the work of the Mission on Environmental Policy. Its importance was underlined by Kader Asmal and confirmed in the resolutions of the conference. Briefing Papers were sent to delegates in preparation for the conference and form a companion piece to this report.

Opening address

Kader Asmal
Minister of Water Affairs and Forestry

I am very privileged to be here this evening. I thank you for the opportunity to share some thoughts with you and I congratulate the Environmental Justice Networking Forum on putting together this very challenging and exciting conference. I understand that "Greening the RDP" - it's a wonderful phrase - is to be a working conference relying on the contribution of delegates from a range of organisations, including women's, youth, rural, religious and environmental organisations, union, civics, service NGOs and researchers. I am happy to note, under the new arrangements, that Government representatives are here and Members of Parliament and Provincial Legislatures.

In a sense, this conference is a non-establishment environmental parliament because, in that new arrangement we have, this is one area where we need the development of what I call a radical agenda. So I'm glad to be here, not only because of the direct relationship between your work and my portfolio, but also because of my personal interest and commitment to environmental issues.

As an international lawyer I have to read the gobbledegook of international treaties, particularly the Rio conventions which, I confess, I still cannot understand. Clarity of language should be part of the greening process because language is a controlling mechanism. I have tried, as an international lawyer, to get some clarity. While in exile, especially in Ireland, I was also involved in environmental legislation, so there is some history associated with my interest.

In this area good intentions are not good enough. In fact environmental protection is in likelihood of dying through kindness. There must be a searching review of where we are and what we hope to achieve in the four and a half years left to the Government of National Unity.

Reconstruction and development

I begin on the basis that the Reconstruction and Development Programme poses enormous challenges to all sectors of our society. As the RDP says,

"Regardless of race or sex or whether they are rural or urban, rich or poor, the people of South Africa must together shape their own future. Development is not about the delivery of goods to a passive citizenry only. It is about active involvement and growing empowerment."

Now that the National Intelligence Service is also

involved closely in reconstruction and development and Armscor is doing its bit for the reconstruction and development of other countries, we must be clear as to what we want to do. We must give content to this revolutionary phraseology - that the RDP is about meeting basic needs is a revolutionary concept because we cannot meet basic needs without transferring wealth in our country and we cannot have involvement and empowerment without the total development of our people.

Non-governmental organisations (NGOs) are responding to the initiative of the RDP office to organise their own National Council, both in the provinces and nationally. For those who take environmental concerns seriously it is encouraging to read that the EJNF will represent the environmental sector on this Council.

The women's movement has achieved much in our country in a short space of time and has won an extraordinary victory. Under the initiative of my own party, and I shall be quite brazen about this, we have a greater representation of women than the established democracies of the United States and the United Kingdom who lecture to us so much about non-discrimination. That is a matter of pride - and wait for the next Cabinet when the majority of the members will be women, bringing to bear their remarkable talents and contribution.

Like the women's movement, I have a sense of a growing environmental movement in South Africa. And it is rooted firmly in the needs and demands of the majority. I sense a growing awareness in disadvantaged communities of their environmental rights and the environmental neglect and abuse to which they have been subjected.

I sense increasing organisation around environmental issues in communities and trade unions and in national campaigns such as the recent Earthlife Africa campaign against the importation of toxic wastes. This campaign is very important because it involves unions, community based organisations (CBOs) and environmental NGOs. I sense that this movement is still young but has become a powerful force in South Africa.

As the women's movement has found, it is possible in our emerging democracy to make an impact fairly quickly. We have a democratic order that may have warts and pimples, that may not do entirely what you want it to do, but it is effective and it has the capacity to change. Even if the Ministers do not share your fundamental assumptions and may not come from the

wider democratic movement - that is the price of Governments of National Unity - it is possible to make a greater impact in our country than in any other comparable situation that I know.

Defining environment

In the past the lack of organisation in civil society around environmental issues, particularly in disadvantaged communities, has allowed the dominant sector to define these issues in ways which alienated the majority of our people. The not inaccurate perception amongst some black communities that the white rhino was more important than the lives of black people is a case in point. No one took up the cudgels for communities where dams were built as sites of occupation while the community around them could not draw water, as in the Sandile Dam and the Pongola Dam. Nobody took up the cudgels on behalf of communities where the Parks Board set out these remarkable resorts, where food is airlifted by helicopters while the community in the Cathedral Peak area draws their water from an impure river. So environmental protection was rightly seen as a sectarian issue.

But not entirely, because when we in the ANC drew up our major document in 1991 on "fit to govern", a large part of the debate was on the environment and the greatest contributors were our brothers and sisters from the rural areas. So a process has begun in the democratic structures in our country to re-define environment as a people's issue, driven by people and seeking harmony and order among people, animals and nature. The EJNF, with its very wide membership, must become a major role player in the civil society aspect of this process.

Within Government there are many who try and re-define environment in this way. Some of the provincial MECs and the standing committees for environment must be particularly commended, especially in their attempts, under-resourced as they currently are, to establish participatory processes in their provinces. I understand that several provinces are already working towards establishing provincial environmental advisory forums, which will be formalised structures through which civil society can give input to provincial government on environmental issues.

But I must also say that certain elements of the public service have not succeeded in fully understanding the ramifications of this new definition of where the driving force must come from. For example, the integrated pollution control process in which industry and government departments dominate the committees or the process by which the Draft Policy on Hazardous Waste Management and the IEM regulations were drawn up, all point towards

environmental issues still being considered the prerogative of the experts. Experts are necessary, but this redefinition is crucial.

Environmental management is not a side issue to the objectives of our RDP. It is integral to the entire programme and a prerequisite for its success. That is not a buzz-phrase. An RDP which only lasts one decade, one generation or even three generations, because it was not based on the sustainable use of resources, is not worth Jay Naidoo's efforts. It is a treason, a betrayal of all that we have stood for.

Wise development means development which is sustainable, which does not strain natural resources and ecosystems beyond their capacity. There has to be an integrated approach to meet the needs of this wider definition that I have put before you. Sustainable development - a catch-phrase used by so many and understood by so few - and certainly you won't understand it if you read the Rio papers - means that we must audit our resources, those resources left to us after the ravages of apartheid. We must audit the rate at which they are consumed and the disposal of the wastes created as a by-product of development.

Quality of life

We must recognise that wealth creation is also a central aspect of reconstruction and development. You cannot have an emancipated society without the creation of wealth. Environmental management is not some kind of hindrance to a strong, developing and sustainable economy. It is not something thought up by a lunatic green fringe or a gang of sandaled ec-nuts. On the contrary, good environmental management is crucial to the successful development of the South African economy and to the attainment of the RDP.

The most important component of good environmental management is an informed and active public. Again I quote from the RDP.

"The democratic government must ensure that all South African citizens, present and future, have the right to a decent quality of life through sustainable use of resources. To achieve this the Government must work towards a participatory decision-making process on environmental issues, empowering communities to manage their natural environment."

I draw two conclusions from this.

First, the quality of life argument is a basic needs argument. The Constitution promises the right to dignity. There is no dignity if my sister in the rural areas has to walk four and a half hours for a few litres

of water, with the attendant consequence that black women in South Africa have a higher preponderance of back trouble than any other group. There is no dignity, if she has to scavenge every morning and every afternoon for the leftovers of our degraded environment to get some fuel to light her fire. There is no dignity when our children in the rural areas have playing grounds which are asbestos dumps. Pollution is not a difficult thing to understand. Even those mothers who have not heard the word "environment" know that their children get coughs, sore chests and runny noses in winter when the air is thick with coal smoke and dust from untarred roads.

We must give content to the extraordinary victory which promises the right to dignity in the Bill of Rights and not leave it to the prattling of lawyers before the Constitutional Court. That right is part of sustaining our country in such a way that the basics needs of our people are met.

Our unique contribution to reconstruction is the democratisation of our society. Without democratisation we will build an order on sand and our society will go the way of other countries, particularly in Africa and Asia and Latin America, but not excluding Europe.

Apartheid has left us with a southern African region in which we have serious issues of environmental concern and disempowerment. We all know too well the disastrous environmental degradation arising from the homelands policy, from the lack of adequate infrastructure in black townships. But we must not forget the severe environmental degradation caused by the destabilisation of our neighbouring states, Mozambique and Angola in particular, and unequal relations between our country and Lesotho and Swaziland and Botswana.

Our country has a lot to answer for. The long task ahead is not only the task to rehabilitate, reconstruct our environment. On the basis of solidarity, which we enjoyed from these countries and which has resulted in my being able to speak to you here, we have an obligation. We have an obligation to Angola and Mozambique to help them to reconstruct as they enter, we hope, the first dawn of a democratic order. We must break from the introverted parochialism which is the result of the sanctions era. Particularly since we have now joined the Southern African Development Community (SADC) we must adopt a regional perspective. If you live in the Eastern Transvaal, the border of Mozambique is a paper border. However many electrified fences you may build there and however many thousands of people you may deport in a rush of xenophobia, that is a

border of colonialism. It is not a real border and no one can tell me that my moral obligation stops with the Tsongas in the Eastern Transvaal and does not encompass those who live in the western parts of Mozambique.

That is why we are going to play a very important part in SADC. It will not be as the leader - a hegemonistic role. Modesty is part of reconstruction and it is very important for all of us, particularly those who work in the rural areas. We must learn some modesty in our relations with our neighbours too, as I have learnt when I have tried to negotiate over the Komati River in Swaziland.

In SADC we are asking for separate water and environment sectors. An environmental sector is going to be very important. Apart from the water needs of our country, the environmental issues as they impinge on our neighbours, can only be addressed and dealt with on a regional basis. So that is the second challenge I put before you, that through regionalism will come real internationalism.

Natural resources

But more than the degradation of the bio-physical environment with its social impacts, apartheid has left to us a country in which people have been disempowered in relation to the management of the national environment. This is the second aspect of the extract from the RDP. Access to those natural resources crucial to and traditionally part of people's modes of survival has been forbidden. The current stripping of the coast around Dweza in the Transkei must be seen in the context of this history. For years conservation practices in this country have excluded communities from the resources guarded so jealously by armed guards inside fenced boundaries. Now, in the context of a democratic government, local people have given vent to years of anger, frustration and need.

The result is a wild and unsustainable plundering of our national resources. And those with hidden agendas of their own are using the legitimate anger of our people to ensure that there will not be national policies in some of our provinces. As the transfer of functions in Water and Forestry take place this week, there are those with their own provincial xenophobic agendas who are refusing the national agencies access to these resources.

This type of action, whether at Dweza or in KwaZulu/Natal, cannot be allowed to continue, nor can we afford to address it by means of apartheid style kragdadigheid. Without the involvement and support of the community in the process of conservation and without the fruits of conservation going directly to the community, the system will not be

sustainable.

The Government of National Unity is committed to a participatory approach, to transparency and freedom of information. Ah, but we fail on this freedom of information. The present Constitution only claims freedom of information in relation to the Government. Our original draft claimed it also in relation to private power, to commercial companies, and not only for purposes of collective bargaining for which unions require freedom of information, but also for purposes of the protection of the environment. We must now go back to the Constitutional Assembly with the original draft.

Consistent with the need for commercial confidentiality, commercial secrets, state secrets, and all the lapidary reservations that you can invent, we must have access. As a Minister I too want access to some of the information from commercial firms. So that's a new agenda for you. To achieve freedom of information, government departments as well as NGOs must be proactive about disseminating information, educating people about environmental issues, and eliciting and listening to their comments.

Apart from modesty, particularly in the rural areas, we must inculcate a strong desire to be good listeners. There are 15 000 villages in South Africa and I can visit only a small proportion of them, but it is necessary for Ministers to go round the country just to listen and then to interact and say, "But we can't deliver water tomorrow because I'm not the rain god. All I can say is that we will work out in a co-operative way how we will establish our priorities." To do that we have to listen to people, to their aspirations and desires, and then we might become a bit more educated about what the driving force on the ground is.

But this education must go hand in hand with development and the eradication of poverty. Poverty is the grinding stone that destroys our people. We cannot protect the environment without facilitating development. No matter how much people understand and support developmental issues, we would still have people plundering our precious resources, growing piles of refuse and streets flooded with sewage as a result of inadequate services, increasing air pollution from the use of outdated and dirty technology, and the destruction of trees by desperate people in search of fuel.

This linking of environment and development has been accepted internationally as the only way to fulfil basic needs, to improve living standards for all and to protect our ecosystems for a safer and more prosperous future. Both internationally and in our own RDP, the participation of communities has been stressed as crucial in the protection and reconstruction

of the environment and in sustainable development.

Participation

But we need to examine closely what we mean by participation, and here I am going to say some very provocative things. One aspect of participation is considered to be simply the publication of draft policy in the Government Gazette. Another aspect is to call a conference. I have been to three conferences run by departments, and the constituencies that have come there are the traditional constituencies and not, as our President said, our rainbow constituency. There is a very funny kind of rainbow, a pink or grey rainbow as Ian Foster described it.

Participation is much more exacting and difficult than this exchange of paper between literate and well-resourced parties. It also means one should go out to those who might not read the Government Gazette, who don't read newspapers, to ask for their views. It might mean that one needs to run workshops in those communities first in order to give them the information on which they base their decision. It means actively consulting unions, CBOs, industry and environmental groups.

It might mean that when we look at Draft Policy on Hazardous Waste Management, as gazetted recently, we run workshops on issues such as, What is hazardous waste? What are its effects? Can it be destroyed or safely disposed of? Only after these issues have been dealt with, can one ask communities to discuss the policy itself.

Or in relation to Dweza, one needs to work with the community in a process that will develop the conservators' understanding of community needs, knowledge and practices, and will develop the community's understanding of how conservation is not their enemy. They need to understand how it will benefit them and their children better over the long term than the short term unsustainable profits from undersized crayfish.

So public participation, which I consider essential to good environmental management, requires us as a democratic government to build capacity, to empower those who have been historically silenced. It is very easy in the Palmiet basin in the Western Cape for this department, long before April 27th, to set up a very good open enquiry system for middle-class whites. It is very easy to organise the transmission of memoranda. But to have an active public participation process means you must help to give a voice, not to the already vocal and well-resourced dominant minority, but for the voiceless.

On Tuesday I will visit the Hendrik Verwoerd Dam because on Tuesday it will not be called the Hendrik Verwoerd Dam. We received 150 submissions on the

name change. This is remarkable. If you get 40 submissions you have done very well. The chairperson wrote to COSATU, wrote to community organisations, and there wasn't a single submission from community organisations. The 150 submissions came largely from those who didn't want any change in the names. We have to grapple with this, otherwise community participation is a buzz-word.

It may require, as I told my department, financial commitment to communities to take part in these processes. Representatives of industry, NGOs, government and sometimes unions, who are taking part in the participative process, receive a salary. They even have a car or get travel allowances. Community representatives do not receive these resources. Attendance at meetings is sometimes rendered difficult for lack of a taxi fare. This may sound very banal to those who have large resources but it is not, particularly in the most disadvantaged communities in informal settlements and rural areas.

Participation does not mean that those who are articulate are now given a forum. I see it happening in Parliament, that often those who loudly advocated participation are the ones who wanted a place for themselves and, once that place was found for them, there was a remarkable tendency to forget what real participation meant. That is using participation as a buzz-word only. Participation is giving people space, not taking space, either in NGOs or in government, but giving people space. It means the active involvement of people in the management of their environment.

In the case of Water Affairs, Parliament has passed legislation to establish local water and sanitation committees. These will be statutory bodies to whom grants will be transferred. They will be the controlling mechanism for water and sanitation in the rural areas. I have said publicly that the majority of these committees must be women because women have a direct role in maintaining family health and therefore a direct relationship to issues of environmental degradation. So women will prove to be our strongest fighters for environmental justice and health in South Africa.

I am convinced also that all sectors, government, NGOs, unions, industry, CBOs, must show their commitment to ensuring that women take part in conferences such as this, that there is a quota for women's participation, that women are part of the committees, that women are given the space and confidence to articulate the particular issues that they experience and the ways they have found to resolve them.

In the same way workers in factories and the people in communities are the front line troops in the battle

against environmental degradation. Often it is the workers who know where bad management is allowing misuse or abuse of hazardous substances in factories, or where illegal dumping of effluent and waste is taking place. That is why we need statutory factory committees protecting the shop stewards under the Constitution when they identify these practices.

In communities simple processes can enable people to measure the pollution level in water systems and in the air, and to guard against illegal dumping of wastes in and around the community. People living near the Jukskei River get the blame for degradation but I have flown over the Witwatersrand and seen illegal dumping, not of domestic rubbish but of chemical rubbish. Community and worker activity, in partnership with an effective government inspectorate, which we must strengthen, and with a well-developed research and watchdog capacity in environmental NGOs, can go a long way to cleaning up our environmental act.

International treaties

If I may return briefly to the issue of the Draft Hazardous Waste policy and wander for a moment into the international terrain, our reintegration into the global economy, and the environmental responsibilities which accompany it, is exciting for all of us. We support the objectives of the many international treaties which seek to make international development more sustainable. Treaties on biodiversity, on hazardous wastes and ozone-depleting substances are all receiving attention. But we should not be selective about treaties we consider, because apart from the Basle Agreement, there is also the Bamako Convention and the OAU, remarkably, is in advance of the European treaty.

It would be a mistake to rush our country through the process of adopting such treaties to impress the international architects of environmental policy in the hope that investments in trade will flood our way. Those policies were often developed within the context of the rich world, without our needs in mind, and their adoption will have implications for many years to come.

Certainly those treaties are a priority for us and it is important for us to begin to fulfil our global responsibilities. But the perfect can be the enemy of the good and the good is what we must work out, for ourselves. We must not compromise our local process, particularly for reconstruction and development, for the sake of international approval. That would be an unsustainable way of developing policy. It will be much more impressive in the international arena for a country such as ours to stand

up and explain why a consultative and educative process of adoption of a treaty is preferable to a head of State merely signing on the dotted line. We have to take an active role in international forums based on the understanding of the capacity of South Africa to address environmental issues and exactly what the implications of these treaties will be for the RDP.

Now, I want to turn to a point of great importance. The recent report of the International Mission on Environmental Policy is a very valuable document. It warns that the environmental debt owed by society as a whole is always paid by those least able to do so, the poor. So there is a potential conflict between environmental management and economic growth and there is a potential conflict between the environmental demands of the international economic community and the needs of a developing country. A partnership between a progressive Government and active community organisations is needed to ensure that the negative environmental impacts of economic growth do not impact on the already impoverished sectors of our community. We cannot allow industry to use the creation of jobs as a smokescreen for greater profits to the already wealthy at the expense of poor communities who bear the brunt of noxious fumes, polluted water and the dumping of hazardous waste.

But we have to make difficult choices and it is very important to recognise that, whatever the process of consultation, the making of a choice is a political matter. Judges cannot make difficult choices for politicians, whether it is in relation to whether we should shoot elephants, or what should happen to 4 000 tons of mercury substances at Thor Chemicals. It must be done as a political matter in the full blast of publicity and accountable to Parliament. Decisions have to be made and may not always be acceptable to you, or to all of you. In a democratic order these are decisions for which politicians must be accountable to Parliament.

The Mission's report is very comprehensive. I commend it to you. There are 44 main recommendations. Their central proposal in particular, that there should be a single environmental protection agency with single enforcement power, will need very careful analysis in the light of what has happened in other countries in the world. For the first time, recommendations are made for an institutional framework for full public engagement and enforcement with teeth.

Again, good intentions are not enough. We must, in my view, have an inter-departmental conference called by the government, the principal four or five departments directly impinging on this, to scrutinise

the report and work out what the future road should be for us.

Security

I end by saying that we must promote a society in which peace and security are a way of life. Issues of security in South Africa in the total onslaught days, tended to revolve around armed insurrection, the Communist threat, terrorists and the like. We must now consider environmental concerns as an aspect of national security. It is the right to security, not as military security, but as the right of people to rise up against injustice. This ideal of security may take time because the right to rise up has been repressed, but finally the people will fight against injustice. In order to promote peace and security we need to promote the sustainable and equitable distribution of resources. Lack of access to resources, or the shortage of resources arising from bad management, will, as in the case of Dweza, result in situations of potential conflict.

As Minister in charge of one of our most scarce resources, water, I am particularly aware of this. The fact that there are communities with little or no access to clean water, or to any water in drought-stricken areas, while farmers take 50 percent of the water and industry and white areas are well-supplied, is a potential source of conflict. If there is to be security in water we must remove that source of conflict because water is power.

I commend to you your organiser's discussion on water in the Briefing Papers though there are areas that I would contest if I were here tomorrow. I commend to you our White Paper on water and sanitation and ask for your responses. It is a disputatious White Paper - it argues, and therefore it should be contentious. And I invite you to take part in the Water Law Review, which is really about power and which will be published soon, and on the basis of that we will produce our White Paper.

Because water is about power and security, we must recognise that while the Government will take environmental issues seriously, while we will have a degree of participation, it is only struggle and organisation that will bring the fruits of success. As we become a democratic society, struggle must take different forms and it must be orderly and peaceful. This is part of what I call praxis, a continuing struggle on behalf of all of us who want a sustainable economy and a sustainable society.

I commend this conference. It is a great honour for me to inaugurate the national debate around the themes that you are discussing. Thank you very much.

Opening plenary The RDP and environmental justice

Chair: Lindiwe Maseko
Standing Committee on
Environment in the Gauteng
Provincial Legislature

Peter Ngobese,

Director, Southern African Regional Development

I would have preferred to be in the audience at this conference. Two years ago I organised an SADC delegation to the Earthlife Conference which led to the establishment of EJNF. There, I learnt more from listening than I would have done from speaking.

This government is committed to listening. The level of government representation at this conference is evidence of its commitment to consultation and of leading by being led. There is a common understanding between government and elements of civil society, such as yourselves, that the RDP should be people centred.

This conference is about putting the environment on the agenda. You have therefore felt it prudent to involve government. You have concerns and need to articulate them. We need to be informed of what people want. The RDP is about changing the way government operates and we are moving towards more consultation, particularly in the area of environment.

There is, for example, a committee taking submissions on how the Council for the Environment should be restructured. The National Parks Board has also called for comments on its own restructuring.

The recent RDP White Paper has only one reference to environmentally sustainable development. Many of you perceive this as indicating a lack of commitment to the environment. To understand that, we need to understand the process of the White Paper's production. We are still in a transitional stage. The Government of National Unity has adopted a consensus approach so as to reduce conflict. There are shortfalls in this but consensus can also be used to advance our agenda.

We should not be complacent. There is still much to be done, particularly in the area of environment. But this is a new era and the tactics need to change. How to achieve the goal of Greening the RDP is something which this conference should address.

Government RDP priorities such as urban renewal, the provision of rural infrastructure and land reform define development goals which you cannot possibly achieve on your own. These programmes are necessary to take the pressure off the natural resource base. You may criticise them as not green enough but they offer an opportunity of injecting green issues.

Further, in questioning government's commitment to environmental sustainability you need to develop indicators which define that commitment. We, as government need to know what they are.

The conference Briefing Paper raises issues for discussion but it misses out the institutional context and what must be done to make institutions more responsive to the plight of our people. The RDP is about the transformation of the machinery of government. This is the crux of the matter.

This is a popularly elected government with a constituency which, I take it, coincides with yours. This conference and many others across the country are redefining the RDP. This is part of what we mean by people driven development. You have our support. But support cuts two ways. We hope you will support us in what you call Greening the RDP.

There are other definitions of what is sustainable. The RDP White Paper commits this government to fiscal discipline. In the global context, the economists have stolen the thunder of the environmentalists. We now find that environment is being argued in terms of its contribution to economic growth. The process of producing the White Paper was similarly dominated by economists.

The role of government, however, is to reduce conflict between economic growth and environmental protection. Sustainable development requires consensus and there is broad agreement on what needs to be done. We are now at the stage of detailed programme design and implementation, so there is still time to Green the RDP and we would like your input.

We have started a process of communication between line departments. The Department of Environmental Affairs and Tourism has, for example, come to us with an RDP submission. As a sector you need to deal with your line ministry. What are you doing about it?

So the answer to your question on this government's commitment to sustainable development is this: The RDP is a policy framework whose major objective is to meet the basic needs of our people. As long as there is abject poverty in this country we can forget about environmental sustainability.

The challenge for all of us, and particularly the NGO sector is not what the RDP can do for you, but what you can do for the RDP.

Report on the International Mission on Environmental Policy

Tami Sokutu

South African leader of the IDRC mission

The Mission report reflects the democratic movement's concern that environment, development and reconstruction should be integrated in South Africa.

In South Africa policy has been formulated after taking advice from technical experts. The Mission was very different. It was composed of six international members led by the IDRC and 13 South Africans. The international members were drawn from Malaysia, India, Kenya, Uganda, Zimbabwe and Canada. So the Mission was able to draw on a broad range of international experience and emphasised the experience of the South and of Africa. Full time South African members represented the ANC, SACP, COSATU and SANCO. The IDRC facilitated the process and their contribution is much appreciated.

In developing the document, the Mission commissioned a number of background papers. It also toured the country on a fact finding mission. It met with a wide variety of interests within South Africa, including people and communities which have no organised voice. It met with industry and it met with government, including ministries, such as Trade and Industry, which did not believe they had anything to do with the environment.

By September this year the report was published in the form of a draft document for discussion. The Mission again toured the country, this time to present the document, interpret their findings and get feed back on it from interested parties.

We now need to start a new process whereby the document comes to be owned by the people and government of South Africa.

The Mission's brief was to review environmental issues and policies and make recommendations to the South African government within the context of the RDP.

It found that the success of the RDP depends on the integration of environmental considerations in all policy decisions because natural resources depend on a healthy environment. Apartheid created major environmental costs which will have to be paid for by the democratic government. Not paying them now will simply increase the price that will have to be paid later. In the meantime, it is the poor who suffer the effects of environmental neglect. Environmental restitution is a priority.

The Mission found that new partnerships need to be

formed between national, provincial and local government and between government, business, labour and civil society. Through such partnerships a coherent national policy framework can be implemented.

The report recommends establishing a number of institutions to allow common people to express their views and concerns. It supports the RDP in recommending that a Commission on the Environment should be established so that people have an avenue through which they can complain about environmental problems.

It recommends that an Environmental Advisory Forum should be established to act as a civil society advisory group to government. This body would be about representation and consultation. At present the Minister of Environmental Affairs is advised by the Council for the Environment. This body is about expert advice. The Department of Environmental Affairs has established a committee to consider this recommendation.

The Mission calls for similar advisory fora to be set up within each of the provinces. The issue of how provincial structures will relate to the national structures must be worked through.

There are also serious issues to be dealt with in terms of the state's monitoring capacity which is fragmented between a number of departments. The Mission recommends that a centralised environmental inspectorate should be created. At the same time, environmental legislation and authority needs to be reformed. These issues relate to the status of the Ministry for Environmental Affairs within government. The report recommends that its role be strengthened.

I have touched on just 6 of the 44 recommendations made in the report. We now need a process where people can work through the recommendations and look at what is ideal and what is practical and at what action can be taken.

Principles of sustainable development

Jacklyn Cock

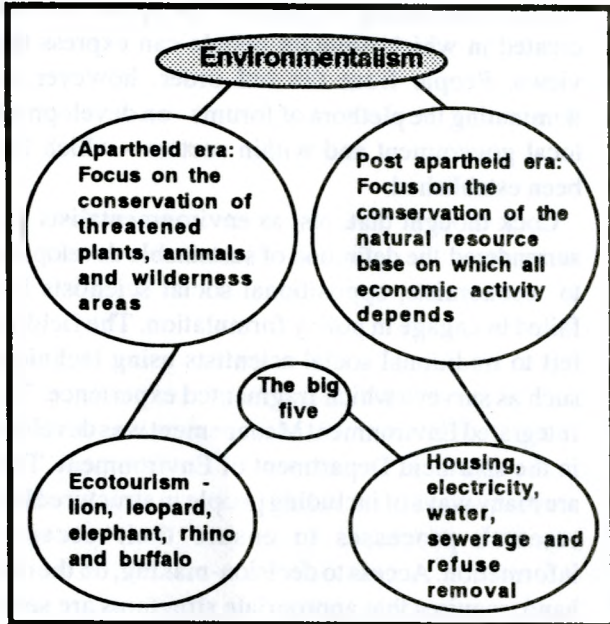
Sociology Department, WITS University

The challenge that we face is to give depth and content to notions which can become shallow and rhetorical.

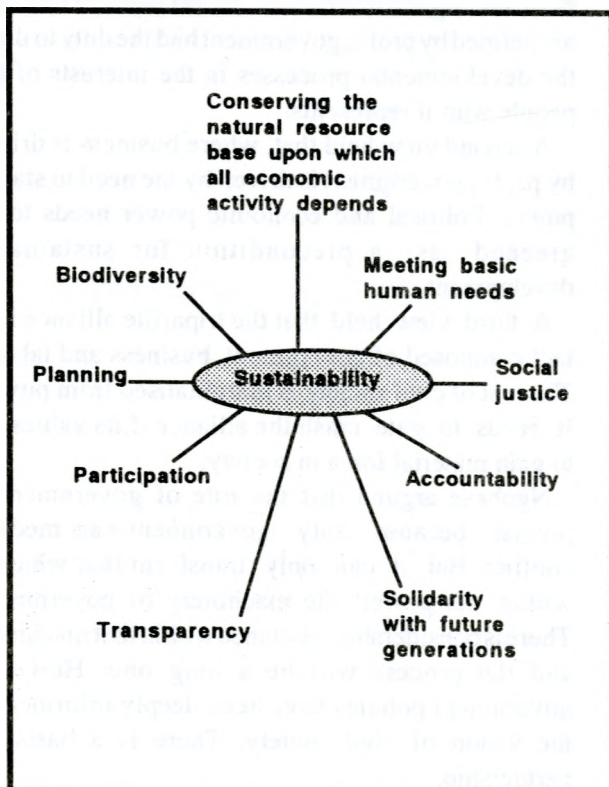
Environmentalism is a tainted ideology in South Africa. It is located within a Eurocentric tradition defined by the white middle classes. It has been concerned with threatened plants and animals to the detriment of people. This has resulted in hostility towards the environment. While we were

preparing the RDP this hostility was expressed in this way: "Do you want the ANC to care more about frogs and worms than people?"

We need to redefine environmentalism. The big five of nature conservation should be replaced with the big five of development.



Sustainable development is essential to our future but there is very little agreement on what it means. The phrase is rhetorically overloaded. These are the components of sustainable development.



Basic needs are not just physical needs. They include needs such as security. Security itself needs to be redefined. Increasingly conflict is being defined in terms of access to resources and the erosion of the environment that sustains them. Security needs to move away from a military definition to a definition which includes the environment and provision of basic needs.

In South Africa, however, the military budget of the Government of National Unity is four times greater than that of the RDP. We have an overmanned army in a context where there is no threat. I urge you all to make submissions to the Cameron Commission on the arms trade which is sitting at the moment.

Sustainable development is also about bio-diversity. Cities of unrelieved concrete and agricultural monocultures are not sustainable.

Social justice is essential to sustainable development. There must be equity in the distribution of resources.

Solidarity is a concept familiar to us in South Africa. The anti-apartheid struggle was an international struggle. Democracy would not have been achieved without solidarity. We need to give solidarity a new dimension: solidarity with future generations.

Sustainable development requires planning. The Brundtland Report, *Our Common Future*, has been criticised as environmental socialism. It is seen as increasing government control over resources. But the market cannot provide for the future.

At the same time the environmental record of the East European socialist countries was appalling. The absence of property rights meant that people felt no liability for what happened to their environment. People must have a real and secure sense of ownership such as is being developed through GEM's People and Parks programme.

Sustainable development requires transparency. That is, people must know what is going on and have a sense of their part in it. And they must be able to hold those in authority accountable for their actions.

Finally, sustainable development requires participation. This too has become an overloaded word. It is now used by the World Bank and by repressive governments as a way of justifying manipulative and co-optive processes. Participation must be about transferring power to disadvantaged communities.

The concept of 'community', however, must be disaggregated. There are people, such as women and the poor, who are marginalised within communities. Participation must include all interests at the local and national level so that it links to the process of reconciliation.

The possibility of participation depends on a

culture of human rights. Environment and human rights need to be linked.

People cannot participate if they do not have the capacity to do so. Capacity building is essential to participation. Within that, in our present circumstances, people need the skills for dealing with conflict in a non-violent way.

Lastly, participation is about the way we construct knowledge. If we do not recognise the value of indigenous knowledge, our culture will remain Eurocentric. We must try to integrate indigenous and scientific knowledge.

Discussion

Three linked themes emerged in discussion; sustainable development, people's participation, and the relationship between government, business and civil society.

The RDP White Paper had confirmed John Clarke's (Human Scale Development) worst fears that the government is not working within a paradigm that sees people as an integral part of the environment. It responds to human satisfiers such as food and water but does not take this further within a conception of basic needs which includes people's relationship with their environment. Working with and educating government officials is therefore as urgent as working with communities.

The technology of providing basic services was also questioned. Sanitation, garbage removal and energy are essential to environmental health but conventional provision of these services will not contribute to sustainable development.

Kathleen Curry of the US Environmental Protection Agency related that certain toxic wastes take 1 000 years to break down. People who are hungry are often persuaded to accept such wastes in their environments because they need jobs. The technologies of waste are produced on the philosophical basis of control of resources and people rather than stewardship of the earth. Such control is now exercised internationally. Participation has to be linked to an education which challenges control.

Participation, in the experience of Maria Mbengashi of the Community Environment Network, has frequently been reduced to calling communities to meetings. Capacity building, necessary to enable participation, is itself frequently reduced to a rhetoric empty of substance. Sokutu responded that capacity building is a complicated process which requires a multiplicity of strategies relating to specific situations.

Mbuyise Gantsu of Lema O Kotule identified a

further problem. Many people who claim to represent communities do not in fact do so. The claim of participation is frequently false.

Sue Hart of Eco-link reported that in many areas people who have long been subject to oppression are reluctant even to express their opinions. The experience of the International Mission was very different according to Sokutu. The space has to be created in which ordinary people can express their views. People from the old order, however, are dominating the plethora of forums - on development, local government and within sectors - which have been established.

Cock thought that, just as environmentalists have surrendered the definition of sustainable development to economists, oppositional social scientists have failed to engage in policy formulation. The field was left to traditional social scientists using techniques such as surveys which fragmented experience. Thus Integrated Environment Management was developed in the apartheid Department of Environment. There are many ways of including people in structured local research processes to ensure their access to information. Access to decision-making, on the other hand, requires that appropriate structures are set up.

Tshepo Khumbane of EDA argued that language is at the heart of the issue of participation and power. People cannot participate in what they cannot understand.

The tripartite partnership between government, business and civil society envisaged in the RDP is founded on unequal power. Mlamuli Mthembu of Eco-link, argued that because the interests of business are defined by profit, government had the duty to drive the developmental processes in the interests of the people who it represents.

A second view held that, where business is driven by profit, government is driven by the need to stay in power. Political and economic power needs to be greened as a precondition for sustainable development.

A third view held that the tripartite alliance is in fact composed of government, business and labour. The rest of civil society is marginalised from power. It needs to gate crash the alliance if its values are to gain material force in society.

Ngobese argued that the role of government is pivotal because only government can mediate conflict. But it can only transform that which is within its power; the machinery of government. There is considerable resistance within that machinery and the process will be a long one. However, government policies have been deeply informed by the vision of civil society. There is a basis for partnership.

Land and land use

Chair: Bonile Jack
Rural development consultant

Derek Hanekom **Minister of Land Affairs**

In his opening address, Kader Asmal emphasised the relationship between water and power. Now, his dams are situated on my land. People gain access to water through their access to land. However, there is little point in having a tap if people are in the wrong place. If their situation is not sustainable, the resource is devalued. Water and land are linked.

The history of South Africa can be read as the relationship between land and power. The land reform programme takes place in that context. It is about access to land as a resource and consequently to water, trees, grazing, food and housing. Access, however, means little without security of tenure. To maximise the benefits of access people need to feel secure in investing in the resource. Property rights are therefore part of land reform.

Education will not of itself create sustainable land use. Nor is land reform just about justice and redress. Much of what happens in the environment is the consequence of economic interests or of immediate need. Poor people strip natural resources because they have no choice. But this is not sustainable. The RDP land programme must contribute to eliminating poverty as a precondition of sustainable development. It must benefit people and the environment and must be continuously monitored to ensure that it is doing so.

Environmental consciousness must therefore be linked to development consciousness. The environmental consciousness promoted by the previous government was fragmented, not holistic. They regarded people as a threat to the environment and saw the environment as contained within the limits of fenced parks. They did not see that providing for people's basic needs is providing for environmental protection. Basic needs and natural resource management must be seen as two sides of the same coin.

The justice component of land reform relates to the previous government's abrogation of people's rights. The recent Bill passed in parliament aims at restitution but is only one part of the land reform programme. Increasing people's access requires redistribution which is very difficult because problems of land distribution are entrenched.

There is very little state land available for redistribution so inroads must be made onto commercial land. This must be done through the market, otherwise the cost to the state will be prohibitive. People previously excluded must have access to the commercial farming route. The Sub-

division of Land Act has inhibited sales of land on the basis of willing seller, willing buyer. Access to agricultural finance has been discriminatory. Institutional reform is needed to ensure that the Land Bank supports the process. For others who do not aspire to commercial farming, the state assisted land purchase scheme is designed to secure access.

Tenure reform is essential to a land reform programme. This terrifies those who believe that good environmental management is dependent on freehold tenure. That fear is accompanied by hostility to traditional tenure. But communities must be able to own land. This government will recognise different forms of tenure and codify it in law.

A range of support measures are required if land reform is to respond to people's needs. The policy framework must integrate social welfare and access to water, housing and agricultural services and markets. Only if the links are made will we be able to produce sustainable development.

For example, the previous government's marketing policy set a high price for maize. This impacted on consumer prices to the detriment of welfare. It also impacted on the environment. The policy supported an economic interest in mono-crop farming and the cultivation of marginal land. That increased the demand for water and policy determined that irrigation water was free. Extension services also assumed the virtue of high-input farming. The Department of Agriculture assumed it was there to support that agricultural economy.

Land Reform is a necessary but not a sufficient condition for sustainable land-use. In Taiwan, for example, the success of land reform has been bought through state intervention in support of the rice price but this encourages high-input farming. The structure of the market, the relation of producers to consumers, is central to the way incentives work. A high price for organically grown vegetables produces an incentive for organic agriculture. On the input side, water pricing relates directly to fertilizer use.

The policy framework must restructure economic incentives and disincentives to promote sustainable agriculture. In that context extension workers must help farmers make good economic decisions. They should promote sustainable agriculture but the effectiveness of the biological control of pests, for example, must be demonstrated. Otherwise farmers will use chemicals. Education is important, but money counts.

To produce sustainable land-use, let us think about causes and effects. Let us think about the links across different sectors. Above all, let us think.

Land use

David Cooper

Land and Agricultural Policy Centre

We need to support Derek in what is a difficult task. The achievements thus far are considerable and we should be proud of them.

Creating a new paradigm of land-use is an area of pessimism for me. Within the agricultural sector there is a frightening certainty about correct agricultural practice. Agricultural planning takes place within a rigid framework. Officials promote private tenure and large scale farms in the name of resource conservation.

Such obstacles meet with our own prejudices. There is, for example, no reference to population in this conference. We need to consider what is left outside our vision, what our prejudices are and why we do not want to talk about them. In looking for a new paradigm of development, we too need to be open to the issues.

For example, an indigenous forest on land which is being redistributed is likely to be cleared. Our planning concepts are too poorly developed to enable us to put environmental concerns into practice. The response that the community knows best is not adequate to the problem. At Dweza where the community has forced access to marine resources, those resources are being stripped. That is likely to repeat itself in other circumstances and there is a danger that the discourse of protective nature conservation will be reinforced.

Land reform will be implemented locally. Derek's contribution will be mediated through officials on the ground. In the Department of Agriculture they believe that environmental conservation equates to reducing the number of people and stock and establishing 'economic farming units'. The Agricultural Credit Board, as a matter of policy, will only support full time farmers. They do not respond to people's development needs.

The same thing applies to the protagonists of sustainable agriculture. To respond to people's needs we need to demonstrate the returns and benefits of that approach. And we should not represent the issues as a zero sum game - we must allow for human ingenuity.

For example, in the 1930s the Machakas District in Kenya was in an appalling condition. By the 1980s there had been a five-fold improvement because farmers had introduced bench terracing to improve productivity. The stimulus was provided by their access to the Nairobi vegetable market.

Development does not require the depletion of natural resources. We need to look for a positive interrelation of development and environment.

Women and land

Bongiwe Njobe

School of Rural Development, University of Pretoria.

In recent years, environmental issues have overshadowed gender issues but in addressing gender issues, one is in fact addressing environmental issues. Women's access to land is restricted.

Land reformed on the basis of a collective claim will not improve the access of women. Inheritance laws exclude them and their access is dependent on marriage. Traditional practices have, however, changed over time and the status of women must be improved within that context as in other contexts.

In terms of land reform through market structures, the legal status of women in marriage contracts reduces their access to both land and finance credit.

Tenure reform needs to ensure that women have access to property rights and that they are enabled to exercise their rights.

Women's access to land is contested even amongst rural women. Younger women articulate a demand for independent access. Older women, who have access to land through marriage, see it as threatening to social values. There is a need to look at conditions within traditional formations. The social impact of equality needs to be thought through.

The RDP carries a strong assumption that agriculture is the only use of rural land. The focus is on productivity. This contrasts with the assumption that urban land is for housing. The RDP is rather thin on agriculture. It reflects an urban bias which will inhibit the necessary shift in agricultural policy from an emphasis on national food security to a broader concept which encompasses both household and national food security.

The concept of the farmer, as being made in the image of the boer, needs to change to include women and small scale producers. Aspirant farmers also carry the image of white farming in their minds. The department is attempting to address this through an exposure programme designed to stimulate human ingenuity.

Agricultural policy needs to acknowledge that South Africa is a drought prone country. The experience of spending R3.8 billion on the Drought Relief Programme and the structure of financial assistance needs to be evaluated. Policy should be aimed at producing farmers who are not dependent on government assistance.

However, the constitution secures the position of civil servants. In the Ministry of Agriculture, the deputy minister and two secretaries are the only new blood. Resistance to new thinking within government is exacerbated by the incoherence of administration. Establishing coherence between departments is inhibited by conflicting divisions of competencies between national and provincial.

South Africa's return to the international arena produces challenges of a different sort. At present the legal framework does not address micro-organisms and is inadequate to the development of bio-technologies. On the other hand, the development of technical options, such as maximising organic production, are enhanced.

The participative capacity of the RDP needs to be expanded. Presidential projects tend to be thought of as the RDP but the real question is what can people do within the RDP. The real problem it is attempting to address is that of transforming a top-down prescriptive society into a bottom-up participative society.

The Department of Agriculture's RDP submission

will challenge department experts by redefining their client group to include women and small scale farmers. It will promote an integrated approach to technical development, human resource development and agricultural development.

Some innovative strategies of participation are being developed through a six month programme which will culminate in a farmers summit.

The initiative is being coordinated with the Department of Agriculture but includes also Water and Land Affairs and others where appropriate. However, the Department of Finance needs to be involved too as the allocation of resources will be crucial to facilitating change.

Urban land

Julian Baskin

Scott, Wilson, Kirkpatrick

My experience of urban land and environment issues comes from working with communities on the ground.

The crisis in urban land is reinforced by policies which support urbanisation. It is assumed that cities give the greatest return on investment and that the concentration of people creates a proliferation of economic opportunities, particularly in the informal sector. But poor people do not achieve wealth.

RDP rural development policy does not balance urbanisation policy. Urbanisation is threatening the survival of small towns and they need help to survive. However, the decentralisation policy of the previous government has made alternatives to urbanisation illegitimate. The result is that cities are sucking in increasing numbers of people but are not providing the opportunities.

People arrive in urban settlements from a variety of places. They are then called a community. Part of the challenge is to create communities through a process of development which responds to their needs. They are not demanding 'greening', however, but basic services such as water and sanitation.

There needs to be a two phase approach. The immediate priority is to provide a healthy environment. Providing a decent living environment, including greening, has to be deferred to the second phase.

There are, however, serious constraints to achieving development goals.

Housing is the RDP priority in urban development. The pressure to deliver has focused the debate on the balance between affordability and quantity. The international experience suggests that this will result in poor planning, shoddy housing and terrible living conditions. That in turn will give rise to escalating crime and other social problems which will have been cast in concrete.

The location of housing is being thought in terms of access to the city. This assumes that people can move but work cannot move. Planning on this basis has two major consequences. First, it results in over-crowding. Second, it produces a situation in which the first comers get the best of the opportunities produced by opening

new areas to settlement. So it creates a rush in which planning processes are over-run.

Elsewhere in the world, access to the city is not the priority. The priority is providing appropriate public transport. That is where our energy should go.

The development of accessible land is conflictual because a range of different interests are invested in what happens to it. People living near empty land have different visions of how it should be used. The choice may affect property prices, local residents' sense of security, access to land for informal settlement, or industry's access to labour. The interests of people who do not live near empty land are frequently excluded.

Apartheid planning was predicated on the suppression of conflict. State planners thought they had to take account only of the interests of the land owner. They have no experience in addressing the real problem which is how to balance the use of scarce resources.

Economic development is also implicated in conflicts over land use. Tourism, for example, is promoted by the RDP because it creates jobs. But international tourists who come to cities such as Durban want access to the best places and they do not want to share them with poor South Africans. Durban's traditional tourist market is the PWV. This is now regarded as a problem because that market is turning black. Tourism for who? The question is central to issues of land use.

Conflict between developers and communities has also been produced by the way in which policy is implemented. The National Housing Subsidy Scheme allows R12,500 per household. On the difficult terrain in KwaZulu-Natal, that provides a plot, a pit latrine and maybe a tap. All the communities I work with refer to the election and say they were promised houses. In the absence of the politicians, they blame development workers for not delivering them.

People who think they are being sold short are not enthusiastic about participating in development. The first requirement for effective participation is that it must be based on truth.

Discussion

Discussion was conducted under the headings of policy, implementation, research and monitoring, cross sectoral issues and people's participation. Key issues such as participation recurred in discussion under each heading. This is reflected in the recommendations of the commission on land.

That sustainable development is a contested concept was reflected in debate. Delegates agreed that people's participation was a prerequisite for sustainable development. They also agreed that the apartheid division of land was not sustainable and expressed support for the RDP land reform programme. Beyond that, two broad understandings of sustainable development emerged.

Swift (TRAC) argued that sustainable development is not compatible with development based on economic growth. 'Sustainable growth' is therefore a contradiction in terms. Friedman (PPHCN) added that the

internalisation of environmental costs, for example, contradicts the present trend towards free markets as the condition for growth. 'Green' is thus a term for holistic development rooted in the sustainable use of resources. The unequal appropriation of resources in favour of particular social interests is not sustainable. Challenging unequal relations of power is therefore central to the Green agenda. Failing this, Black (Earthlife) thought the work of the commission focused on fragmented issues.

Against this, Baskin argued that environment would then equate to the RDP. The RDP attempts to take a holistic view of development. Environment should have a more restricted meaning within that. 'Green' and 'brown' agendas need to be distinguished and balanced. The brown agenda responds to services such as energy or sanitation. The green agenda relates to preserving bio-diversity. This is essential in urban as well as rural areas if people are to have a decent living environment. Bio-diversity cannot simply be abandoned to immediate needs.

Liebenberg (ANC) suggested that EJNF should clarify its own sense of the term but also that its use by other interests should be clarified. What, for example, do DBSA economists mean by sustainable development?

The contest of meaning re-emerged in relation to agricultural technologies and research.

Delegates agreed that private sector research should assist in supporting small scale farmers, but for different reasons. Beck (Ecolink) argued that external inputs are necessary for productivity and hence for the development of rural economies. Njobe pointed out that aspirant farmers are demanding access to agricultural systems which they have seen and seen to work. They must be able to get a return on their labour. Private sector research is needed to ensure that farmers are trained in the proper use of inputs.

Support for the extension of chemically based farming was opposed by other delegates. Black felt agribusiness research should be required as a way of holding companies responsible for the use of their products. Sokutu (ANC) argued that technologies of production are not neutral but are a defining element in relations of power. Markets are also linked to technologies and require restructuring to permit alternatives. Mdeng (NTEDF) added that chemical inputs are water intensive and threaten water resources. Food security, particularly at the level of the household, is ill-served by industrial agriculture. More attention should be paid to developing indigenous and other organic farming systems [Sokutu].

Baskin doubted that national food security could be achieved given the soil and water constraints. The environmental survival of South Africa depends on its relations with its neighbours. Food security should be thought of in terms of the southern African region. Angola, for example, could become the regional bread basket.

Delegates agreed that research funding in South Africa has been biased in favour of high-input large

scale agriculture and that this needs to be redressed.

A cross-cutting debate formed around the distinction between fundamental and applied research. Proponents of fundamental research asserted the need to keep up with international research. Carr (Gauteng Nature Conservation) observed that cuts in university budgets are eroding capacity. Research is abandoned to the service of industry because they are funding it. Answers to basic questions of productivity are produced in the laboratories of agricultural chemists.

Opposed to this, Beck argued that apartheid has resulted in 40 years of neglect. Research was forbidden in the bantustans and fundamental research cannot be afforded in the next 40 years.

Liebenberg and Njobe questioned the division between fundamental and applied research. The real issue is that South African research must address the problems of this country.

Delegates agreed that state support is required for long term research because private sector research is driven by the need for immediate returns. Incentives should similarly support long term rather than short term decision making.

The strength of the consensus that development should be participatory was reflected in the recurrence of the issue under each of the tasks. As noted by Peter Ngobese in the opening plenary, participation depends on institutional formations. In the land commission, debate on participation was closely shadowed by debate on the role and responsibilities of government.

Alcock (Midnet) argued that it was the government's responsibility to ensure that land reform is accompanied by policies supporting environmental sustainability. Njobe warned that such a policy could not be implemented unless it was supported by the Ministry of Finance.

Delegates agreed that Strategic Impact Assessments should be undertaken on the pilot land projects. SIAs are an advance on Environmental Impact Assessments in that they take a broader account of the social and natural resource base [Roberts].

Dunckley (Akanani) insisted that policy could only be guaranteed if people have the skills and incentives to manage their own development. Empowerment must be a basic principle of policy.

Fakir (LAPC) argued that policy is translated through different actors and effects of power. There is thus always a need for monitoring of policy implementation. The stakeholders themselves should be the first monitors [Njobe].

However, development admits powerful external forces to communities, particularly in tribal areas, argued Rutsch (LRC). Participation and sustainable development is conditional on the recognition that natural resources belong to the people. People need protection against external appropriations of their resources. Legal definitions of tenure must be broadened.

The constitution privileges private property rights. This inhibits land reform [Swift] and could be used to prevent state inspection on private property [Van

Warmelo]. Government must be able to intervene where land use on private property destroys common resources.

In addition, an independent body, perhaps similar to the Environmental Protection Agency in the USA and responsible to parliament rather than the government, should monitor the implementation of policy.

Empowerment requires that people be informed. Research and communication were therefore central to the debate on participation.

In relation to land reform, a national audit of land is required to enable people to make informed decisions [McDaid]. More generally, policy, research and implementation need to be linked through programmes. This should ensure that false expectations are not raised.

Communication needs to make use of a wider variety of media. Departments are only required to publish in the government gazette. The SABC, particularly radio, is a crucial information tool and should be used to provide feedback on the RDP [Njobe]. Communications should use people's own languages.

At the same time, communication structures must be established between government and people at the level of the village or street. The problem is that government does not have relevant expertise. Capacity building is necessary in government as well as in communities.

An information structure needs to be chosen and tested in the pilot projects. It must be effective in enabling two way communication between government and communities in the context of well defined objectives [Jespersen].

Ngobese noted the need to distinguish different levels of participation at national, provincial and local levels. Policy councils at the national level and a range of sectoral and local fora are being established as avenues of participation.

It's rather a matter of alliances and conflict between alliances. People speak from positions of interest [Dunckley].

Delegates noted a number of problems have to be worked through to make forums effective.

First, they have become sites of confusion. Njobe argued that before the elections people outside government had a very clear agenda - changing government. We moved from the negotiating fora into government but did not understand how government works. Now the fora do not know where they are going. The relationship between government and non-government sectors needs to be clearly defined. The energies of people outside government must be harnessed without trying to impose some sort of homogeneity on them. Communication is critical in this respect and the Department of Agriculture is targeting particular groupings.

Second, fora are expensive. Liebenberg remarked that dictatorship is the cheapest form of decision making. A practical balance has to be achieved.

Third, fora are frequently imbalanced. On the one hand, it is difficult to ensure that genuine local leaders are included. On the other, big business has been

disproportionately represented [Liebenberg].

Njobe responded that the Agriculture Department has attempted to address that. It has set up plenaries and restricted SAAU representation while supporting those who are under-represented.

Sokutu reported that the Department of Environmental Affairs is working towards establishing a representative advisory body for the environment. At the same time there is a need to improve the environmental capacity of other ministries. Will a representative body have access to those other ministries? EJNF itself needs to establish contact with all departments, not just the DEA.

However, poor relations between the DEA and the ministries of Water and of Land Affairs was noted as inhibiting the development of sound environmental policy.

Grindlay (SANCO) argued that participation and implementation are inherently cross-sectoral. At the level of the community, the issues are all inter-related. Health is linked to water and sanitation. It is also linked to food security and gardens have been established in Botshabelo to alleviate malnutrition. Development requires lateral integration across departmental and disciplinary boundaries. The community itself is the point of integrated development and the delivery systems have to be part of the community.

Government departments have inherited a vertical structure. This needs to be transformed to allow for a horizontal integration of departments [Baskin].

The real issues are frequently missed in large fora. Government should go to the people [Van Warmelo]. Election officers had reached all corners of the country. Government staff need to be accessible to communities to act as a channel of communication [Mdeng]. The intention should be to build popular knowledge within communities, argued Gantsu (Lema O Kotule).

That has been the perspective of community development workers in the non-government sector. They have developed techniques such as Participatory Rural Appraisal to build on people's knowledge. But there is a huge gap between their approach and that of departmental experts [Beaumont]. Technical knowledge remains important and we have to grapple with the difference in approach.

Government staff have been inappropriately trained and required to implement inappropriate policies. Promotion and other incentives have been determined within that framework [Carr]. There is a need to establish new indicators to monitor performance and enable them to contribute to broader development processes.

The Department of Agriculture has twinned its experts with people outside the department in an attempt to deal with that. But there is also a need to develop a more representative staff ratio [Njobe].

Njobe challenged the commission to speak in its own name. This conference is one avenue of consultation. Participation cannot be always deferred in the name of the community.

Recommendations

Policy

The RDP should aim at balancing urban and rural investments.

The RDP land reform programme must be accompanied by appropriate support services. An environmental programme should be built in.

Women's access to land should be supported.

Externalities should be costed into all developments.

Issues concerning the sub-division of land and the definition of economic units need to be revisited.

Environmental education should be integrated into schools curricula.

Government policy should be communicated through the mass media.

An audit of land available for reform should be undertaken and the information conveyed to communities.

Local communities must participate in and benefit from decisions to exploit natural resources.

Urban development must ensure quality of life and include a consideration of environmental sustainability.

An independent body should monitor state policy, mediate disputes and clarify areas of jurisdiction.

Implementation

Legal definitions of property rights should be amended to include appropriate tenure options such as community tenure.

Property rights should not exclude state interventions where owners act contrary to the public interest.

Local particularities should shape policy responses.

The state should develop incentives to ensure responsible and sustainable land use.

Research and monitoring

Funding for general and specific research should target national issues.

Research should empower communities to manage their resources effectively.

Research should be programme based, e.g. farming systems research.

Agribusiness research must accommodate the needs of small farmers and educate them in the correct use of inputs.

Research funding should not exclude alternatives (e.g. permaculture) to high input agriculture.

Household food security and subsistence production should be researched and supported.

Research should precede and monitor implementation.

People's participation

The empowerment of people to realise and manage the implementation of policy is the precondition for successful development.

Funding should be available for capacity building.

Technocrats and government staff should go to the people to build popular knowledge. The civil service must be reoriented to that end.

Common definitions of environmental terms should be made available to people.

Cross sectoral issues

Land use planning and the land reform programme require a cross sectoral approach.

Gender issues similarly need to be addressed across sectors.

Government departments need to integrate laterally at the point of delivery.

Cross sectoral fora are useful vehicles for development.

Mechanisms for linking governmental and non governmental structures around common platforms should be established.

EJNF should establish working groups and practical alliances to advance programmes across sectors.

Len Abrams**Ministry of Water Affairs**

I intend to give a general overview of where things have been going and the strategy with which we have approached the water issue during the last six months. Most of what I have to say is contained in the White Paper.

The most important issue which we have to address - from all perspectives - is equity of water use and availability within South Africa.

Under Apartheid there was a Balkanisation of South Africa. The white paper refers to 11 homelands. In many cases there were no distinct departments of water affairs. The primary water structures were in the RSA but the central department did not have legal jurisdiction in the homelands. In many parts of the country there were different water laws in effect. There were complex structures to try and create some dialogue.

The primary issue is equity in terms of access to water, and equity in terms of water management. Access to water is a poverty indicator. Lack of access exacerbates poverty. The RDP has an emphasis on poverty. Our primary objective is to roll that back.

The White Paper tries to distil the policy with which to tackle the problem. It does not represent a strategy. It has been difficult to develop a strategy because of the restructuring process.

Water resource management is not seen in the constitution as a provincial competence. But water supply is seen as an issue of local government. There is thus a transfer taking place from water resource management to water supply. We have established liaison structures with the provinces but there is uncertainty around the transfer of functions. There is also uncertainty about the budget, and this puts a constraint on planning.

There has been some advance with the new vision in the department. Water supply must be a local function but it is the responsibility of the state to ensure that it happens. The state's function is to provide the enabling environment, the policy background, and a safety net.

A critical issue in the Department's philosophy is that the actual function of water supply must be community based. How far do you go into really ensuring that empowerment? For the Department, the problem is that there is an enormous backlog in provision and there is no local government, particularly

in rural areas. But at the end of the day the incentive for environmental control must be in the hands of local people. The Bill merely provides the skeleton. The key to success will be how water committees function, with what powers and what controls.

Another major element is a fundamental review of the water law of the country. We are calling for public comment. You can bet that industry will employ the big guns. That is the tyranny of the articulate. We have to see that the community has a voice. The water law review takes place next week.

In the inherited water act the environment is not listed as a user. Now the environment is noted as a user and we have taken that further. The environment is regarded as a resource base, not as a competitor with other users.

Charel Brewer**Department of Water Affairs**

In Water Affairs we have a management system and an information system. Len sits in the management system, I sit in the information system.

I was asked to talk on water basin management and the impact of large scale engineering and particularly cross watershed transfers. The largest schemes are those which transfer water across the Drakensberg watershed to supply the PWV from the Vaal Dam. The largest single scheme is the Highlands Water Scheme which is still under development.

Transfer and irrigation schemes remove water from river systems. As more water is removed, you lose an increasing number of attributes in the natural system. The effect of those losses is cumulative.

So we use the precautionary approach. That is, when the consequences of a project are uncertain, it should not be developed.

The target of the RDP is to address the needs of the rural poor first of all. Rivers are not only the primary source of water for many rural communities, they also support other natural resources. Under very dry conditions the only grazing available is in the riparian areas.

There is a dam in Kwa Zulu Natal designed in the early 1960's to supply irrigation water for commercial farming. Although it is not yet used to its full potential, it has had a severe impact on the ecology of the Pongola flood plain. It has changed the natural pattern of flooding to an artificial one. That has changed the pattern of land use on the floodplain and has resulted in erosion. It has also undermined fish stocks because

the fish are adapted to the natural flooding cycle.

The crux of the issue around water resource development is how you decide to allocate the resource. If you give it all to a particular form of economic development such as irrigated agriculture, then you remove it from existing economies of natural resource use. Different interests compete for the resource. So there should be a participatory planning process which allows people to decide on natural resource use.

Water diversions have a long term effect. The system is going to kick back forty years down the line. I won't be around by then but my kids will be. What we do now will affect future generations.

The short term problem is that water resources are limited. There is a particular point of expansion beyond which you cannot go.

Trevor Fowler

Water consultant, Gauteng legislature

Development is not the opposite of environmental preservation but a part of it. If developmental issues are not the focus, in an environmentally friendly way, disadvantaged people will make it the focus, more often than not in an environmentally unfriendly way. People are a part of the environment.

I shall focus on the urban aspect of water - looking at the water supply and how we develop that. In this conference water and sanitation have been separated. This is a serious weakness. When you separate water and sanitation you will encourage the usage of water rather than its conservation.

The RDP is a needs driven programme. The urban population is about 27 million. This represents about 68% of the population of our country. This is according to World Bank and Urban Foundation estimates which are possibly high. Of this, the low income population is about 19 million. That is, 70% of the total urban population. The growth rate in urban areas is about 3,5% per annum. Within the low income sector, it is about 5%.

So people are moving from rural to urban areas. In the past, development strategies have tried to reverse that process, but such strategies have failed in most countries. We have to realise the urbanisation reality.

Of the total urban population, there are 9.5 million with a basic and a minimal supply of water. Of that, 5 million have a less than adequate water supply.

In the original RDP document it was stated that the process must be people driven to be sustainable. It takes account of the Agenda 21 perspective which details rights and obligations for everyone. Access to water and sanitation at an affordable cost is defined as a basic right. Water must be used efficiently and sanitation must be environmentally friendly.

Development needs to be balanced. Water and

sanitation, hygiene and education, waste disposal and water resource management need to be part of a coordinated strategy. Partnerships between the stakeholders need to be developed to ensure that programmes are effective. It is particularly important to ensure that women are part of the process. The real stakeholders must be involved in local development forums.

To ensure financial sustainability, tariffs have to be realistic but also ensure lifeline provision with cross-subsidies to assist the poor. Excessive water use should attract a higher tariff. The cost of providing a basic water supply is about R1.8 billion. Fully reticulated water would cost about R7 billion. Policy should aim to provide some for all rather than all for some. That implies a target of 25 litres per person per day upgradable to 50 litres.

The key question is how to make the following three objectives reconcile with one another:

- [i] Meeting basic needs
- [ii] Economic growth
- [iii] Environmental and political sustainability.

Demand for water in the PWV is growing, and at present rates new sources will be required by the year 2005. The Lesotho Highlands scheme will not be adequate to demand beyond 2010 or 2020. Unofficial discussions have taken place about transferring water from the Zambezi to South Africa in the future.

Shirley Ngwenya

Health Services Development Unit

Women in South Africa have suffered three forms of oppression: race class and gender. Rural women suffer most. This is reflected in their lack of access to basic services including provision of water. The RDP commits government to the provision of rural water. It identifies 12 rural development projects in 7 provinces. Bushbuckridge, in the Eastern Transvaal, is one of the project areas. This is a case study which will look at rural women and water supply in that area.

Bushbuckridge is near Londolozi Game Reserve. Half a million people live on 1 200 square kilometres. There is severe poverty, low literacy and over 60% of adult males are labour migrants.

Bushbuckridge is an 'island' between the Sabie-Sand catchment and the Blyde and Olifants Rivers. Three dams supply water for afforestation, irrigation, mining, livestock and fishing. Domestic water for the community depends on unreliable boreholes.

In one area a single working borehole provides 500 households. Women have to wait three hours for water and push barrows over three kilometres. They do not reach the minimum of 25 litres/person/day.

The time taken in collecting water diminishes women. They cannot participate in other activities and their self esteem is undermined. Without safe

water, they and their families are subject to disease.

The RDP calls for people's participation. 97% of the women are not aware that their involvement is needed to relieve them of their bondage. Some of the reasons are obvious:

- * patriarchal value systems
- * low self esteem
- * low literacy rates among women
- * a lack of coordination of information provision from the provincial to the local levels

Women, as the people who normally provide water in the home, need to take on an active role in securing water in their areas. But they don't have the time because they are fetching water. They don't have the skills for lobbying and negotiating. They don't have the information that allows them to act.

There is also long term ethnic conflict in the area. How do you establish a single water committee in the context of conflict?

In forming water committees, these challenges have to be addressed.

The policy indicators for women to share the RDP's vision are:

1. A comprehensive approach is needed to improve their quality of life. It should cover health, education, employment and communication.

2. Information must be disseminated to the community. Establishing community radio should be a priority. RDP information should also be taken physically into the area and worked through women's structures such as burial societies, care groups, and stokvels.

3. Employment opportunities for women must be created. Women should be employed as field workers (even if part time) to disseminate RDP information to other women.

4. RDP planning and implementation should be gender sensitive. Short term alternatives should be explored for the provision of clear water.

There are plans to transfer water from the Sabie and Marite Rivers, already heavily exploited, to the dry Mutluvumi River which will supply the proposed Injaka dam. The project will take five years to complete. Supply from the nearby Klaserie Dam, owned by white farmers, is not being explored. This indicates a lack of gender sensitivity.

In conclusion, we need a commitment. What do we want to achieve between now and 1995 and how will we evaluate it? All of us, at national, provincial and local level need a log frame prioritising three things that we need to do in the coming year. My dream log frame is attached.

Greening the RDP: Women and water log frame

Objective/activity	Time span	Success Indicators	Sources of Verification
1. Establish/ strengthen existing physical structures at local level	Till April 1995	1. Viable small offices (e.g. Local Women's groups, Local Development Forum) with a minimum of 3 staff members, of whom 75% should be women.	1. Observation at site visits. 2. Reports from consumers.
2. Coordinate and highlight important information to community based structures on the RDP process.	Till April 1995	1. Register of Local Structures (RDCs). 2. Record of interaction with provincial office.	1. Solid RDCs whose composition should be 50% women. 2. Evidence of viable project plans. 3. Observable projects being implemented (communal water pipes at every second street, community parks etc.)
3. Provide technical and personal skills training as part of capacity building to local structures.	November 1994 - June 1995	1. Programmes on a variety of functional skills e.g. conflict management, bookkeeping skills, assertiveness etc.	1. Reports from community based structures. 2. Ability of the community based structures to manage their programmes (financial capability etc.)

Discussion

Conflict over control of and access to water resources was a recurrent theme of discussion. The potential for conflict is sharpened by previous policy which privileged some at the expense of others. Delegates cited numerous instances of visible inequity in the supply of water.

The pipe (from the Loskop Dam) supplies small white farmers, the hospital, the police township; but the same pipe bypasses a whole lot of villages. How does the government intend to redress this situation to make the supply be based on equity? asked Khumbane (EDA).

Abrams responded that this is our country now. We mustn't view the government as remote. The rolling back of 300 years of inequity is going to take time. One of the critical issues is the law. The water law review will be started next week with the publication of a discussion document. (The review has subsequently been delayed.)

The ministry has sent back proposals for a transfer scheme which excludes communities along the line of the scheme. But these are new projects. Addressing the inequities of pipelines that have already been built is also going to have to be addressed.

We have approached the police for increased security on Kader Asmal because when you get to water you get to the heart of things.

People want to know how things are going. What will government do if people say "we want our water and we want it now". How long does it take? [Majola - SANCO]

The Department of Water Affairs has 0.3% of the National Budget. We estimate that we need 1% of the national budget [Abrams].

If we have a pipe going by and a plumber who can tap into the pipe - who do we have to go to for permission? [Majola]

You have to look at the bigger picture. Otherwise whole supply systems could fail resulting in even longer delays in delivery [Abrams].

Questions were raised about the funding of water committees intended to enable community based planning of supply in areas where there is no local government.

We must avoid provincial government picking up recurring costs. You have to avoid a situation where there is all for some and others don't get [Abrams].

Will committees be elected? What avenues are there for recognition? How will the interface between first world and third world happen? Water management planning also concerns pollution. One of the sources of water pollution is impoverished communities

without sanitation [Schoeman - Afrosearch].

Water boards are to interface with the communities. Resource management will be viewed from a catchment perspective. Umgeni Water is engaging in water development with communities. The Department will have the responsibility of being the custodian of water. The RDP linkage is important in relation to water quality. Communities have no sewage systems. Those links need to be made [Abrams].

The potential for regional conflict was also raised. Vrahimis (EJNF) referred to Fowlers paper. He said that by 2010 we will have run out of water and we are now looking at taking water from the Zambezi. What about the integrity of the Zambezi water?

Fowler emphasised the need for industry to start conserving water. The reality is that neighbouring countries are having the same problems with water. We need to plan for drought.

The crisis of water, and the complexities of managing demand in relation to water resources produced conflict within the commission itself. Fowler called for a transparent process making information available so that people can understand it. But the debate was increasingly dominated by 'technocrats' to the exclusion of others.

After this discussion, protested Khumbane, we might be endorsing policies that we won't be able to translate to people on the ground.

The gap between experts and other delegates was not merely a matter of making technical information accessible. The issue concerns who has power and the experts themselves were divided on the issue. Brewer wanted to see policy in a people-driven planning process as opposed to an engineering planning process. You don't trust the technocrats, responded Mentis (Rand Water), but its far better to do it on a rational system. Other delegates felt that technical people within the water industry are there as advisors. There must be shift from this attitude of dictating to one of servicing. The leaders have to take the message from the ground. Today we've seen the gap between up there and the people.

There was agreement, however, on the need for devolved management. Many water issues are locally specific. Abrams referred to the drought endemic in the Northern Transvaal. We have to avoid the trap of a remote government deciding what is right for the people.

Delegates endorsed the need for integrated management at the catchment level. Jackson (EMG) proposed a policy that looks in a holistic way at how we source our water. We need a more integrated approach as opposed to just looking at

dams. Delegates identified rain water harvesting, recycling and ground water extraction as elements of catchment based water production.

Managing land use was recognised as central to managing catchments because the value of water production competes with the value of industrial agriculture.

Kotze (WNHA) felt certain areas should be no go for development that is going to drain areas of water. Our catchment areas cannot afford a 20% reduction in the amount of water they produce. You have to look at the value of the water. The RDP will fail in our area if people with vested interests have their way. Our whole economy depends on the water - everything links to water.

A defense of afforestation was contested by Fowler. You are saying that it is inherently good. Its not. It has to do with land use. Inappropriate forests take water away. Other crops such as wheat are also heavy water users. There should be a land use policy that is water friendly.

Majola called for a review of agricultural practices. Irrigation on monocultural farms is a huge user of water.

Gubb (WLS) emphasised the need for resource efficient agriculture. This contrasts with an argument for market defined economic efficiency.

Lazarus (Environmental Options) related agricultural use of water to the water law review. About 65%-75% of all water in the country rests in the hands of white commercial farmers. People who own land own water rights. If water is public the state can then devolve the power to deal with that to catchment authorities. Water committees can then be involved in the allocation process.

Conflicts over water are thus closely related to conflicts over land use. Ngwenya reported that we have talked on a catchment level. But people do not want to share. You can feel that the atmosphere is very tense when you go to such meetings.

Cross watershed transfers pose further questions concerning economic interests in water. Gubb pointed to the need to protect natural resources which play a vital role in rural economies. We want natural vegetation in catchment areas. Brewer emphasised that when you take water from one area to another, it is a social thing. There needs to be an environmental and social impact assessment.

Mentis liked the idea of devolved catchment management. We are awarding privileges to water users on the basis of something else. Let the market allocate resources.

Gubb responded, That's the voice of wealth. Who

shares the resource? How can it be shared equitably between users and between users and the environment?

Urban and industrial conservation and recycling of water were of concern to all delegates. Batchelor (PWV Nature Conservation) remarked that sewage systems misuse water and waste the nutrient value of sewage. Fowler responded that 30% of water is reused in the Vaal catchment. The difficulty in utilising effluent for agriculture is that the urban areas are not located where agricultural water is used. It is also a financially expensive process.

Gubb thought recycling policy should relate to the type of user. Nzira (Permaculture) responded that from rural people up to the level of industry - all should be recycling water.

Pybus (SCOWSAS) reported recycling in some industries. But recycling does not necessarily create more water. In the case of Sasolburg, if they did not recycle they would empty the Vaal dam every 9 months.

Water pricing is clearly central to conservation in the use of water. It also relates to equity. The RDP proposes a cross subsidy from the rich to the urban poor and from urban to poor rural areas. Pybus argued that there should be no cross-sectoral subsidies. The true cost of water should be shown. If you are getting a subsidy you should know it on your account.

Ngwenya responded that water needs to be accessible. Lazarus endorsed that view. Basic human needs should be the priority followed by the requirement for water flow in rivers.

Water pollution, from industry and lack of sanitation, was a major area of concern.

Fowler thought that pollution should be judged in terms of the optimal. Every river system has a natural cleaning system. What if you have a small community that has to treat waste? You can't look at it only in terms of industrial pollution.

Hart (Eco-Link) proposed the urgent introduction of a multilingual national adult holistic water and sanitation programme. It should start at the primary level.

Following a break, the dominance of the technocrats was addressed. Other delegates also acknowledged the need for their support. Khumbane expressed their views:

I think we shouldn't see the technical people as here on one side and the others over there. We came here to meet on a common platform, to find a balance. In the rural areas because of land issues, people have been packed into arid areas. We need those kinds of

investigations. We need information so that people can come out with solutions. We have to meet. We have been communicating across one another, there is not a sensitivity.

Water harvesting dominated the discussion on the practical implementation of policy. Khumbane questioned, Should we go into a big scheme of harvesting water from the roofs? People have built big tanks in Sekhukhune. People have been able to collect enough water from the roof to last the whole year. If we subsidise to water tanks will it affect the groundwater? If we are talking about ownership of water we must also look at the amount of water a woman can collect herself.

Other points raised in discussion were that:

- * Urban storm water management is connected to harvesting.
- * Bylaws prevent people from harvesting from the roofs in urban areas.
- * The potential for harvesting will be greater in some areas than in others.
- * Boreholes provide more water than harvesting but are frequently out of order.
- * Three quarters of the families in rural areas are headed by rural women. It costs about R200 for the materials for a tank. Most cannot afford it. further, it is only possible with the iron roofing. It requires a subsidy.
- * A number of NGOs are building rain water tanks and funding trusts have been set up. They are waiting to be asked.
- * Water harvesting is not just from roofs - it is from any surface area that can provide water for storage.
- * Road surfaces provide opportunities for harvesting. If we use municipal water for drinking, we could use road runoff water for crops.

Discussion on participation was opened by Ivey in the chair. We are talking about participation by community groups working with the RDP, and sponsorship coming from major water sponsors.

Mukheiber (RSS) asked what is the RDP's responsibility for those communities which don't have structures?

Ngwenya took up the theme. There are forgotten parts - parts where NGOs have not got to. There is no way in which those people can get information. We need means to deal with this. Do we empower the existing communities? With local government - we don't yet have these local government structures in place. Some women's leagues have already built schools. But we don't recognise this. We start other structures instead. The existing structures should be used and empowered - the civics and NGOs activities could be expanded. An NGO may be interested in

human resource development - in developing skills which are the felt needs of communities. Expertise could be community driven.

Mnana (CEN) felt we should go beyond concepts like CBOs and NGOs. We should be aware of the power relations within those communities. You get people who talk "for" the communities but the information does not go back down. What do you mean by participation? Mass meetings?

Ngwenya thought that we need to be careful with mass meetings. People become rowdy and don't have time for questions. It is only through workshops that we come to understand. In many communities there is an urgent need for conflict management workshops.

Concern was expressed that water committees should be democratic and equitable in terms of representation.

The use of various media to disseminate information was a key area of discussion.

Khumbane felt we should use as many channels for information dissemination as possible - this information should be going out full time on the radio.

Ngwenya argued for community radios which are not commercialised. Education can take place through community radio. Information should also be coordinated. It comes in bits and pieces.

Hart referred to the work of Eco-link. During the last three years we have evaluated what information is needed. Women want to know the state of the world, they want water information. We made two draft books. We held workshops and scrapped 60% of the books and reworked them. Finally they are finished. The point is that knowledge must go from the bottom to the top.

Discussion concerning ownership of water, which is recorded above, was related to the issue of addressing past injustice. Delegates emphasised the need for capacity building. NGOs also have a major role in this but are over extended and not present in all areas.

Delegates discussed the need for government extension officers at the community level. They should be drawn from the communities and given appropriate training. Extension workers might be under the authority of Water Affairs or the RDP office. Jackson (EMG) thought the RDP office might do training that is broader than water, such as environmental extension officers. Mnana pointed out that demarcations of authority varied between different provinces.

Delegates also felt there should be an environmental watchdog to ensure environmental justice. The Department of the Environment is ineffective. An independent authority is needed.

Recommendations

Policy:

Must redress the injustices of the past.
 Access to water is a basic right.
 Planning process must be people driven.
 Environmental and social impact assessments.
 Ownership of water rights should be reviewed.
 Transparency.
 Efficient usage of water by agriculture.
 Integrated catchment management.
 Alternative water sources.
 Groundwater control.
 No cross sectoral subsidies - people must be charged the true price and subsidy should be shown on account.
 Waste minimisation.
 Strategic resource allocation (water for the environment).
 Optimisation of water catchment.
 Protection of natural systems which improves the quality and quantity of water.
 Economic value of water should be considered.
 Recycling - big users.
 Ecological policy.
 IEM procedures.
 Education programme (from primary to adult education; multilingual).

Participation

Communities, RDP, and water sponsors.
 Use and empower existing structures (NGOs and CBOs). Expand the activities of NGOs geographically, expand expertise.
 Community demand-driven needs.
 Organisation and conflict management workshops to address conflict within communities.

Cross sectoral Issues

Women - empowerment at all levels.
 Agriculture - there must be efficient usage of water by agriculture.
 Forestry - forestry abuse of water.
 Extension officers.
 Safeguarding environmental ecological needs.
 Waste - reuse of waste water and recycling.
 Health - water quality and health.
 Land - water and land rights must be divorced.
 Housing - housing design to facilitate water harvesting - storm water subsidies.
 Revegetation.
 Education.
 Media - information must reach people.

Practical Implementation

Water harvesting - the government must assist existing structures in funding water tanks.
 Education through community radio, meetings and workshops.
 All water must be public.
 Water control on a catchment level.
 Overall ecological control.
 Department of Water Affairs must inform the public through media, including radio.
 Community elected extension officers.
 Address inequity on farms.

Research and Monitoring

Operation and maintenance of community water systems.
 Assessment of human resources.
 Skills development.
 Participatory research appraisal.
 Research to be sensitive to knowledge, culture and experience of local communities.
 Traditional methods of water purification.
 Recycling of water.
 Baseline water availability.
 Alternative harvesting methods.
 Water costing.
 Carrying capacity of catchment.
 Siltation of dams.
 Clean technology.
 Research into appropriate ongoing evaluation.
 Appropriate catchment use.

Industry

Chair: Humphrey Ndaba
South African Chemical Workers' Union

Introduction

Humphrey Ndaba

South Africa still has many dirty industries and there is great disparity between wage categories, with some managers earning 40 times more than workers. For a long time there has been a tendency for people to invest in industry relying on primary resources, such as deep level mining, carrying with it an increase in health and safety dangers.

We need to re-examine the question of equity within the RDP. The RDP White Paper differs significantly from the original Alliance document which spoke of redistribution of wealth. It shifts towards a market driven economy based on export led growth. The assumption is that the cake needs to grow by 5% or more per year. It will allow increasing foreign investment. It adopts the model of Pacific rim countries, which improved industry through low wages.

Should we attract investment and industry or worry about sustainability? Growth must be sustainable and resources replenished.

It is worth raising the question of the Minister of Labour's concept of tripartism. This is presented as a new way forward in collective bargaining. There are likely to be more understandings between government, industry and labour. People may be asked to forsake high wages despite their skills levels. But there is an overriding question of workers' rights and a constitutional right to public information. The RDP should be subjected to the constitution and the Rule of Law.

Tripartism cannot work if it is unprotected by the constitution. It cannot work without access to information, for example, regarding the incomes policy of certain companies especially with respect to salary differentials.

The RDP is seen as a holy cow, above criticism, but we have to continue to improve it. We must have policy responses. We need to look again at Agenda 21, African Treaties, and other international agreements and institutions.

Pelelo Magane

Chemical Workers' Industrial Union

We need a new approach to the issues at stake. We have just taken over a government but we do not have control over processes. We have reclined in our seats and relaxed. This is not the time to do nothing - our struggle is only beginning.

The economic structure still robs South Africa of real economic growth. The industrial system is still based on old managerial methods. It still relies too

much on Fordism. These outdated methods contradict a major aim of the RDP.

Unfolding events see industry preparing to capture spin offs from the RDP, entrenching inequity in charitable works, and addressing the wage gap through charity and lotteries.

Industry has shown a reluctance to reveal any strategy for job creation. Trade unions still struggle to obtain information when they approach management. Education is still structured to serve the interests of capital.

Although there is a lot of plant restructuring, workers are not participating in the decision making. They want transparency in the restructuring process. They want the question of the wage gap addressed.

We hear constantly that South African labour is overpaid. For unions, this implies a long and bitter struggle over the right to full information. We can't allow growth based on sacrificing health and safety for the benefit of a few who command vast resources.

Hazardous waste from other countries is offered a home in South Africa. In some quarters this is seen as job creation.

While the hated 1913 Land Act has been repealed, environmental damage has robbed the people of their heritage. In the past the indigenous people co-existed with the ecological system. Today they are viewed as responsible for most of the damage. Farm workers continue to be dismissed while farmers employ foreign labour to avoid labour laws.

In some cases, animals take preference over humans. Animals have a home, workers do not all have a home or only have it until death.

Can industry contribute to healing the land?

The RDP offers systematic solutions to development. It has always been green in our view. The socio-economic structures of the past must be transformed. The RDP empowerment programme can be vital in providing education and training to equip communities who bear the costs of environmental degradation so that they can assume guardianship of the environment and of the economic viability of the poor.

An RDP that does not address the poor is useless. The poor must be vigilant on health services and profit sharing.

This position has been contested by those who have benefited from the status quo. Escalating charity is not the solution to poverty based on 200 years of industrialisation. The destruction of nature has occurred for love of money. The resulting lack of access to resources has created a threat to world peace.

Trade unions have good track record. We have

relentlessly campaigned for wise protection of natural resources. We know that if this is ignored, resources will be run down to extinction. We still need to review strategies. We need to integrate health and safety and environment into collective bargaining. Industrial restructuring cannot occur without involving labour, especially if we want to eliminate hazardous substances from production.

As trade unionists we depend on alliances with environmental activists to enhance grassroots consciousness. We look forward to a fruitful collaboration with EJNF.

Zav Rustomjee

Department of Trade and Industry

I feel very much at home here, but you see me in the dock. I'm not representing government as a whole. Government is fragmented and unfocused on environment. Minister de Villiers could not come today because he is watching rugby. I wish to offer insight into the DTI and then we can work out a way forward.

History of industrialisation in South Africa

To set the scene, I will offer a perspective on the process of industrialisation in South Africa. After 1945 we inherited a minerals based economy. There was a perception that we had moved away from this into higher value added manufacturing. Statistics of Gross Domestic Product show mining and agriculture down (agriculture to less than 10% and mining down due to changes in the international gold price). Manufacturing increased its share of GDP.

The reality is that only some manufacturing sectors grew, mainly the capital and energy intensive subsectors, particularly chemicals and mineral processing. Chemicals related to mining - especially SASOL - played a far greater role than in the chemical industry of other countries. The extent to which we have diversified is very limited.

Other subsectors are less competitive and grew largely to support the core sectors.

This is what we have inherited but it was not an inevitable development path. The National Party from 1948 represented certain class interests. It partly subordinated industrial policy to empower a small section of Afrikaans society which benefited from new corporations such as Sanlam and Absa. There was the notorious transfer of all state bank accounts in 1948 to Volkskas.

The foreign ownership base of the economy diminished. Capital and energy intensive industries were favoured above small scale industry. Tariffs protected certain manufacturers from foreign competition.

Redistribution of Economic Power

The RDP base document drew up aims for trade and industry. I will analyse them one by one to see how

the DTI is addressing them.

The RDP is committed to creating between 300 000 -500 000 jobs per annum. DTI is doing very little about job creation. It does not fall within its powers. There are a number of institutions in government which deal with government employment policy, including the public enterprises and the IDC. But in some cases, such as Iscor, state holdings are being sold.

1. Anti Trust Policy:

The Competition Board (falling under the Minister of Public Enterprises) reports to the Minister of Trade and Industry. This makes it easy to have some impact. For instance, Trevor Manuel froze the opening of a new cinema complex because a small distributor was being victimised by Ster Kinekor whose parent company is Sanlam.

2. Small Medium and Micro Enterprises:

A Green Paper is currently being debated.

3. Export incentives:

Policy has shifted from cash handouts to industry. GEIS (the old government export incentive scheme) has not proved effective, is not allowed by GATT, and will be dropped over time. We need to bear in mind that the core industries produce 70% of exports.

4. Large capital projects:

A number of these are under way - Columbus at R5 billion, Saldanha at R1 billion, Alusaf at R6 billion. In terms of capital allocation, 70% of all manufacturing capital is invested in steel, mineral processing and chemicals. We need to shift that. We do not want an economy relying on series of capital intensive projects to deliver growth.

5. Trade liberalisation:

There are a number of constraints working within GATT. There is an accusation that policy makers have adopted a completely free market approach. This is not the case. Government recognises that we have to match the rate of tariff reduction with restructuring, for example in the textiles industry. This must be based on being able to attract foreign investment.

6. Foreign investment:

The RDP says we need to raise investment in productive capacity, whether from local or foreign sources.

The role of the DTI overlaps with the jurisdiction of the Department of Finance and the SA Reserve Bank who control interest rates. Within DTI there is a Division of Investment Promotion but this has been relatively ineffective.

7. Science and technology promotion:

The RDP encourages innovation in Science and Technology.

The DTI stimulated the creation of the Ministry of Science and Technology.

8. Military industrial complex:

The RDP favours the transformation of military

to civilian production.

The DTI has some overlap with the Department of Defence. We find, for example, that shipbuilding was subject to abuse through incentives. There were also deals trading helicopters for ships.

9. Tripartism:

The RDP is committed to an inclusive process. The government submission to GATT takes industry and labour into account. A new statutory body, the National and Economic Development and Labour Council (NEDLAC), involves industry, labour, government and others.

The DTI and the environment

The DTI is sometimes accused of giving import permits to companies such as Thor. The issuing of permits is centralised but sometimes other departments assess the granting of permits. The assessing departments (e.g. Environment or Health) take the decision and pass it to an individual DTI bureaucrat who signs the permit.

EIAs fall under the ambit of the DEA. The Central Economic Advisory Service may also have powers in relation to development.

The DTI has a R4 billion budget. It has to manage the tension and mediate between large and small scale industry, urban and rural claims, national and provincial powers (e.g. the consumer component of environmental issues may fall under the provinces because Consumer Affairs was listed under Schedule 6 of the constitution), communities and existing or new industries which may be hazardous or polluting.

In the GATT negotiations, the industrialised North wanted to raise the issue of non tariff barriers. In the end, GATT left environment out of the picture. This was portrayed as a "blow to sustainable development". The issue concerned establishing a mechanism determining who should decide standards. It should be remembered that trade is a war and every mechanism is used to pursue it.

In the RDP, there is reference to a legacy of participation in the popular struggles. The DTI still needs to create mechanisms for public participation in debates and decisions. It does not have a direct line function on environment but devotes 5 or 6 people to the task of systems coordination. Some bureaucrats are supportive, others have been stifled by the hierarchy.

To address the problems action is needed on a number of levels:

- * pressure at community level;
- * pressure on the bureaucracy;
- * better coordination between government departments;
- * better environmental coordination, particularly on

Integrated Pollution Control; and coordination of consumer protection.

There should be no trade off between growth and environmental protection.

Lael Bethlehem

Industrial Strategy Project (ISP)

The ISP was commissioned by COSATU to undertake sectoral studies on the economy with a view to developing a detailed industrial policy. However, there were some gaps and now the ISP has entered a new phase which will include a detailed look at the environment, health and safety question.

Debate on environmentalism and growth

The most brilliant thing about RDP is that it offers a false choice. It is not that the RDP says two different things. It clearly states that the economy needs to be expanded so that equality is enhanced. Can this be done in such a way as to guarantee sustainability as well? If we want sustainability to be real, we need to address this.

A number of characteristics defined the previous industrial growth path.

1. It was resource dependent, especially on cheap non-renewable minerals, raw materials (e.g. timber), labour and energy. Industry and government kept driving down the costs of these resources to the point where we have depleted minerals without funds to ensure that the mineral base can be carried forward into the future. Raw materials have been exploited in the same way. Labour health and safety has been significantly compromised. Energy pricing has excluded the real costs of cleaning up coal.
2. Economically South Africa became isolated and protected (through tariffs). There were some good and some bad results. Some jobs were maintained but indiscriminate protection has driven up prices of basic goods. This has been very inflationary, with no attempts to contain prices through greater efficiency.
3. Government approached industry and industry/environment issues in a very fragmented way. At Thor, for example, there was a proliferation of inspections by different agencies. Yet the key problem fell through cracks.
4. Management has, and wants to retain, the prerogative to manage. Workers are excluded from key aspects of decision making which can affect their lives. They have no input into the direction of companies.
5. Institutions which govern industry have been one sided. Changes are visible with the establishment of the National Economic Forum and the restructuring of the National Manpower

Commission. There has been more participation but decision making remains very centralised.

A new development path would be defined by different characteristics.

Decision making in industry needs to be more participatory. Tripartism should be widened out though this may be difficult to manage. Participation must be structured at national, industrial and plant levels. The National Economic Development and Labour Council (NEDLAC) is a step in that direction.

If the mining base is diminishing, is there an alternative?

The RDP claims the key is to use industry to meet basic needs and trade internationally. Industrial strategy needs to be rooted in human resource development. More effective use must be made of human, capital and raw material resources.

What is needed is a high wages, high productivity growth path having strong worker involvement in decision making, especially in factories. This would benefit environmental management. There is a strong tradition of unity between workers and communities which was expressed through boycotts and stayaways. Better integration of health and safety and environment will create better workplaces and reduced external pollution. Mercury, for example, is as big a killer outside as inside the factory.

There are thus four key issues which must be addressed in relation to industry's impact on environment.

1. Management of waste and health and safety within companies is linked. It will be adequately addressed only by partnerships between industry, trade unions, communities and government.
2. Improved resource use (e.g. of water, land and energy) needs to be addressed on an industry by industry basis.
3. The relationship between trade and the environment needs to be properly managed.
4. This raises a question of process: how do we get decisions on industry and environment? One idea is to target a couple of industries and work with them to identify key environmental challenges. One would need to get agreement from workers and management for a commitment to address those problems.

Rob Short

Coca Cola, Southern Africa.

I will speak from my experience in industry rather than as a representative of industry.

There are a number of strategies for putting industry

on a more sustainable path. I want to pose two basic questions: What does industry do about environmental performance? How do you get industry to perform adequately?

The first question concerns the forces within industry that produce improved environmental performance.

1. Trademarks define corporate identity and hence corporate citizenship. The environmental use of trademarks produces powerful incentives.
2. International pressure: a number of companies have made good changes not because of sincere environmentalism but under corporate head office pressure.
3. Economic concepts of waste minimisation can add value to a company's production.
4. Competitive export pressures: within SACOB four companies have lost contracts because no environmental management was built into the tenders.

Within corporate structures, however, environmental managers are not really taken seriously.

Pressure from government and regulatory initiatives are vital. At present government does not appear to care. The DEAT is just stumbling along without vision. There has not been a participatory policy process.

Government leadership is essential for good environmental management in the future. The state must develop a regulatory framework conceived on the basis that environment is integral to development. That will create the context within which industry has to operate.

Regulations need to be effective and implementable. Regulation for the sake of regulation will not produce results. There must be clarity on what is to be achieved.

The provincial and local government levels are crucial to implementation. Legislation needs to be accompanied by capacity building.

Leadership also means that the state must develop its own environmental management systems. State purchases, of vehicles for example, should be linked to approval through an environmental impact system.

Integrated Environmental Management (IEM) has not been applied in general. Within Coke it has had a major impact on water use and waste water production but there are no incentives to improve performance. On the other hand, Telkom has taken to sending millions of clients two different phone bills for each account.

Government needs to set standards and improve its capacity to interact with and impact on industry.

Discussion

Delegates focused on the role of the different actors in industry as is reflected in their recommendations.

The relationship between trade unions and communities, and between different interests within communities, was linked with questions concerning jobs, the environment and economic growth.

Mbuli (IHRG) remarked that safety, health and environment (SHE) are by law part of collective bargaining. In the Western Cape communities are anxious about emissions from nearby industry. There are conflicts with labour who are anxious to protect jobs. Meyer (Human Scale Development) noted that the largest section of communities are unemployed and not in Unions. How do we weigh up economic growth and quality of life?

Ndaba argued that high illiteracy and narrow skills training ties workers to particular jobs. In Modderfontein an explosion killed a number of chemical workers. The surviving workers claimed danger pay. That was the logical way out for them.

Magane reported that the CWIU encourages establishment of community forums to address environmental issues. It is wrong to assume workers are separate from communities. They live there. Communities experience water shortages and there is a link with industrial use of water. The plastics industry provides jobs but plastic litter is a scourge in the townships. Recycling of plastic is happening on too small a scale to be viable. Some industries will have to go but we still need to protect their jobs. There are no easy answers but we have to start with open information. Industrial restructuring must be participatory. Employers should commit to education and skills training and not simply to literacy.

How widespread is this being implemented through unions? asked De Kock (Eskom). All the elements of SHE are integral to safe work. It is employers who question the cost [Magane].

Billy (Eco-Programme) suggested that participatory research on health, safety and factory waste streams would develop workers research skills and contribute to wage bargaining. On the community side, small recycling enterprises can create jobs, develop skills and clean up the environment.

Bethlehem reported that COSATU now has a SHE committee but it is still fairly weak. NACTU is stronger. We should call on unions to take these initiatives seriously.

The right to information for workers and communities is secured by the new Health and

Safety Act (January 1994), Mbuli reported. Common action between workers and communities should result from this.

Ndaba referred to the interim constitution's guarantee of information from the state - but we can't enforce rights to private information.

Mayet (AEEP) said there was no consensus among lawyers on that. To date one can only make claims to state generated information. But the right could apply in relation to collective bargaining. The right to "engage freely in economic activity", however, may limit citizen's claims on private information. That the constitution has to be interpreted in an "open, democratic" manner may similarly privilege privately held information.

De Kock observed that industry was thinly represented at the conference. It would be useful to expose them to this process. Albertyn (EJNF) replied that environmental justice is concerned with those voices which are usually suppressed. We need to build a perspective with communities, unions, greens, NGOs, and researchers. We invited people from industry who we thought would understand these dynamics. Short remarked that industry tends to dominate forums with technical issues. Resolutions can go forward to engage industry.

The GATT has major implications for the environment and for North South relations. Mayet argued that it restricts environment and health and safety regulations as non tariff barriers to trade. This conflicts with our constitutional right to a non-detrimental environment. We need a framework of standards to promote the environmental interests of the people of South Africa.

In the context of trade wars, Albertyn was concerned that environmental protection would be regarded as a Northern plot. We need a South based definition of environmental protection.

Rustomjee said environmental standards could be developed outside GATT. I do not argue that environment should be excluded from GATT. There is a parallel with social clauses. Recently South Africa asked for a trade agreement with Malaysia which refused to sign a social clause. Growth based on a cheap wage economy is not sustainable for SA. There are divisions within the South as well. Today one can't get a product into the developed market economy without meeting environmental standards. We need to encourage industry not to lose out on markets.

Billy argued that GATT remains a problem. An investment code is needed to prevent the plunder of third world resources.

Delegates saw government as having little

conception of the relationship between environment and industry.

Bethlehem related that DTI bureaucrats could not understand why the Alliance Mission wanted to consult them. They claimed that trade and industry had nothing to do with environment. How can DTI be reoriented?

That reflects the previous lack of industrial policy, said Rustomjee. In recent years there have been five changes of minister, each with a different approach. A process leading to greater coherence in policy is now under way. It will be imperfect because some career civil servants are still very rigid. But there was a national input on small, micro and medium enterprises. You can approach parliamentary standing committees to make departments accountable.

Powerful industrial interests are also active in pressurising government. So government is caught up with the Industrial Development Corporation (IDC) route. The question is how to navigate out of that into a sustainable industrial growth path.

Richards (WITS, SRC Environment Desk) related that industry also determines academic programmes. Wits serves mining interests. Barlow Rand is a major funder. The emphasis is on industrial degrees with a shocking lack of social criticism. A compulsory social criticism component should be included in all degrees.

Jensen (Ministry of Environment, Denmark) related the experience in Denmark. The government first identified areas for improvement and then applied pressure. They started with guidelines but these were ignored by industry. Some called their products "green" but few were really eco friendly. Regulation using price controls and taxes have been more effective.

99% of Denmark's water is abstracted from the ground and 30-40% of groundwater was contaminated by agriculture. Legislation was introduced to triple the price of agrochemicals and has been effective. We have clean technologies to cut down on water and energy use. In South Africa business cannot yet compete in this area.

The Department of Science Technology should promote people friendly technologies. [Billy]

Bethlehem noted the Netherlands draws up a state of the environment report every three years. Regular monitoring is needed.

Participation requires resources. Delegates discussed the relationship between government and civil society.

Civil society will have to take up these issues because neither government nor industry is addressing them [Albertyn].

The Government of National Unity (GNU) is still

a site of struggle. We lack the high wage, high productivity model and 60% of people were displaced. Co-determination won't work if people are not resourced and skilled enough to participate [Ndaba].

Tshukudu (MEWUSA) argued government should define guidelines for implementation of the RDP. Affirmative action and participatory development are not being implemented.

For Meyer, the RDP is a bottom up programme. If we want regulation, we must implement it.

There is a vacuum between government on the one hand and CBOs/NGOs on the other. People on the ground don't understand the RDP. The Mission didn't go down to grassroots level [Lamfit]. NGOs don't have money to fly to Cape Town. Budget lines must promote participation. The summit of RDP/NGOs was a bit exclusive [Mthembu].

Meyer cited the SA Development Education Programme at University of the Western Cape as providing a capacity building course. We need to set up environmental monitoring in each provinces and publicise successes and failures.

Sustainable development, for Sister Angelica (WFC), is not compatible with a first world lifestyle. Poverty will grow. We need to decolonise our minds and look at our needs. We should be thinking of decentralising industry.

The problem can't be solved by closing industry, thought Jensen. As long as there are no incentives, there will be no clean up. A framework for popular involvement and campaigns is needed.

Fig (GEM) argued that the old industrial consensus obliges government and labour to accept business's neo liberal thinking. It fails to challenge the post Cold War imperatives of capital. We need to construct a new consensus based on open and inclusive decision making, opening it out to the new social movements and civil society in general. The old consensus restricts itself merely to the inclusion of a black bourgeoisie.

For instance, there is a real move towards the establishment of Export Processing Zones where manufacturers receive tax holidays and are exempted from the country's labour and environmental regulations. The old consensus does not question these proposals. The new consensus would ask: Are the jobs sustainable? Is technology being transferred? Are wages being forced ever downward through competition with the low wage economies or other EPZs?

Ndaba related that because of the threats of unemployment workers are urging unions to support public works programmes which will pay below market wages. If EPZs are hedged in conditions, we could think about supporting them.

Recommendations

General:

Two points were raised by panellists:

1. the specific nature of SA industry, based on cheap resources; and
2. government needs to give industry a clear message that environment is regarded as a priority.

We need to move away from industry based on exploitation of cheap resources, including material and human resources. We support the call for a living wage and for the closing of the wage gap. We need creative solutions. We can learn from other industrial cities of the South and develop local solutions.

Industry action:

All industrial sectors should draw up plans for dealing with their environmental impacts, in a participatory process. This should be in addition to existing agencies.

Government action:

- * Structures for environmental management: We support Minister Asmal's call for a government sponsored conference on structures for environment management, looking at:
National Environmental Advisory Forum;
Commission for the Environment;
Multidisciplinary inspectorate of pollution;
participation of civil society and democratisation of the workplace.
- * We need a regulatory framework for industry to work within. It requires:
the review and consolidation of legislation;
training/ capacity building for enforcement;
development of policy;
setting of minimum norms and standards (with specific norms for residential areas) and compensation for affected communities;
development of economic incentives to encourage waste reduction and recycling.
- * We need criteria for international investment. International companies should be subject to the same standards as local companies.
As a minimum South African transnationals should obey SA standards in other countries
- * Integrated Pollution Control Policy Development Process:
There should be full and proper consultation, including funding for participation of CBOs, trade unions and NGOs if necessary.
Strategic Development Frameworks are needed at national and provincial level that take environmental issues into account as well as the uneven development in the country.

- * We call for an independent audit and environmental plan for all government departments/institutions/ services and parastatals. They should meet the same standards as industry.

A public, accessible report should be prepared on this information. All government departments should use recycled paper.

Department of Trade and Industry:

must create a definition of economic growth which includes environmental externalities.

Department of Environment Affairs and Tourism:

IEM procedures should be applied to all RDP projects; in the future the NEAF to interact with the RDP around such issues.

EJNF and RDP must interact with development workers and NGOs who work directly with communities on the ground. Local RDP workers and local government officials must be trained in environmental issues. We must push government and politicians hard to:

- * define RDP priorities;
- * define criteria for implementation of RDP, e.g. for affirmative action, participation, education and training.

We need a transparent process whereby CBOs and NGOs are identified for involvement in participatory processes. We endorse the process already happening in this respect. The EJNF can channel information to participating organisations about these processes. Use recycling projects for job creation.

Civil society action:

Development of an environmental/ ethical sense of responsibility in the whole society.

Build a consensus that is broader than the current state/industry relationship.

Lobby national and provincial governments and local RDP structures.

Set up structures which promote reportbacks.

Interact with Select and Standing Committees.

Buttress lobbying with mass action if needed.

Use Western Cape organisations to take on some of the lobbying responsibilities, particularly of parliament. Share information on health impacts of industry through EJNF newsletter, *New Ground* and other environmental publications, and through *The Shop Steward* and other trade union publications.

EJNF action:

Lobby Constitutional Assembly for constitutional amendments about environmental rights.

Environmental management in the mining industry as provided for by the Minerals Act (1991)

J.H. Louw

Department of Mineral and Energy Affairs, Pretoria

The aim of this talk is to give you some insight into the importance of mining, the damage it can cause to the environment and the steps and actions taken by the Department of Mineral and Energy Affairs (DMEA) and the mining industry to protect the environment.

The economic importance of mining is indicated by some statistics recently released by the Chamber of Mines.

Mining provides more than half a million jobs and paid out almost R12 billion in salaries and wages in 1993.

Despite world recession and certain depressed mineral markets, the value of mineral sales increased by 10,9% to R46,7 billion in 1993. Export of primary mineral products contributed nearly 48,5% (R38 billion) of SA's total exports. If beneficiated mineral ore exports are added, minerals account for 53,3% of exports.

In 1993 about 617,5 tons of gold were produced, realising R23,2 billion in foreign exchange. About 51,7 million tons of coal were exported, valued at R4,5 billion, out of a total saleable production of 182,1 million tons.

Environmental damage is caused by the very nature of mining. It disturbs water drainage patterns, resulting in erosion. Materials which were perfectly innocuous in situ, are exposed to air and water and become hazardous wastes which pollute surface and ground water. It results in the dumping of some 400 million tons of residues annually with a surface area of hundreds of hectares resulting in soil, water and air pollution. Burning coal dumps and stack emissions contribute royally to this problem.

Opencast mining is used extensively in South Africa, particularly for exploiting coal. It disturbs the land and topsoil, increases acidity, decreases nutrients, creates surface crustiness and changes in vegetation cover.

Evidence presented by industry suggests that high extraction underground mining, once properly rehabilitated, will probably not have more than a 5% negative impact on crop yields, but residual surface subsidences, water ponding and the alteration of water flow patterns are problems that must receive

attention. In all cases, the water holding capabilities of soil are detrimentally affected.

The promulgation of the Minerals Act (1991) and the compilation of guidelines entitled the "Aide-Memoire for the preparation of environmental management programme reports for prospecting and mining", were remarkable achievements. The Minerals Amendment Act (1993) provided for greater sensitivity to environmental matters.

The Minerals Act permits the holder of mineral rights to enter upon the land and disturb the surface to search for and win his mineral.

The Act provides that rehabilitation of the surface of land shall be carried out by the holder of a prospecting permit or mining authorisation:

- * in accordance with an environmental management programme (EMP) approved by the DMEA regional director in consultation with other departments responsible for the environment (Water Affairs, Environment Affairs, Agriculture and Health);
- * as an integral part and simultaneously with mining operations; and
- * to the satisfaction of the regional director.

No mining authorisation may be issued unless the Department is satisfied with the proponent's EMP. A mining authorisation may be suspended or even withdrawn if a mine fails to comply with the Act concerning rehabilitation.

The Aide-Memoire for the preparation of EMP's was compiled by a special committee composed of representatives from the relevant government departments, the mining industry and organised agriculture. Its purpose is to help mine owners plan EMPs.

A mine's EMP reflects full particulars of the mining project, a description of the pre-mining environment, a motivation and detailed description of the proposed project which includes the method of winning the mineral, an environmental impact assessment and, finally, an EMP which gives a clear indication of what will be done to neutralise or mitigate each impact identified during the assessment.

An abridged version of the Aide-Memoire has been developed for opencast mines with a low impact on the environment to streamline the approval process.

Financial provision for the execution of EMP's and against final (or premature) closure when no further income is being generated by operations, is required of mines by the Act.

The mining industry has indicated that it recognises the need for such provision but requires clear rules and consistency in their application. The DMEA is of the opinion that financial provision should be required of all mines irrespective of their size. While small-scale mining should be encouraged, standards in respect of the environment, health and safety must be maintained.

Policy on financial provision for the rehabilitation of land disturbed by mining was recently approved by Cabinet and contains the following principles:

- * The financial provision must be reserved exclusively for environmental management and rehabilitation.
- * No cross-subsidisation between mining companies or owners of mines should be permitted. Each holder of a prospecting permit or mining authorisation will accept responsibility and provide funds for his operation.
- * The funds shall be safe from seizure in case of liquidation and be readily available to the Department in such an event.
- * Provision shall be available at the start of operations, during the life of the mine and at closure, that is from cradle to grave.
- * Provision shall be sufficient to keep pace with rehabilitation during mining operations.
- * The amount of provision shall be reviewed at least annually.
- * Provision may be built up over the life of the mine.
- * The method of provision must be approved by the DMEA.

Regulations to enforce the policy will hopefully be published before the end of this year (1994).

Mine closure policy is currently being formulated by the DMEA in consultation with the other relevant departments. In the context of sustainable development, it is expected that:

- * The safety and health of humans and animals are safeguarded from hazards resulting from mining.
- * Environmental damage or residual environmental impacts are minimised, are acceptable to all parties involved, and do not have an adverse effect on the environment within or outside the scope of the mining area.
- * The land is rehabilitated to a predetermined and agreed standard.
- * The physical and chemical stability of remaining structures should be such that naturally occurring forces will not damage them enough to increase the risk to the environment.
- * South Africa's mineral resources are exploited optimally.

Before 1991 many mines were closed and abandoned without having taken any of the above aspects into account.

In terms of the Minerals Act, the State has responsibility or co-responsibility for the rehabilitation of abandoned mines. The DMEA is currently conducting a survey of all abandoned mines and the probable cost of rehabilitation.

In conclusion, the DMEA is confident that its endeavours to formulate the necessary legislation, policies and guidelines, will strengthen the economic viability and sustainability of the minerals industry and ensure that every person enjoys the fundamental right to an environment which is not detrimental to his or her health or well-being. To achieve this and to prevent a conflict of interests, it is imperative that only one department, and that is the DMEA, should remain in regulatory control of the mining industry.

Laura James

National Union of Mineworkers.

It is predicted that, in the last quarter of the twentieth century, the world will have consumed at least three times as many minerals as have been consumed during the entire previous history of civilisation.

The Earth Summit focused attention on sustainable development - how to effect economic development without destroying environmental resources. As South Africa re-enters the world markets its environmental practices are likely to come under increasing international scrutiny.

Mining is currently the core of South Africa's economy. This country is well endowed with reserves but certain sectors (notably gold) have been in decline in recent years due to the depletion of ore reserves and a lack of prospecting and investment in new mines. Approximately 150 000 workers have been retrenched in the last four years. Currently the industry employs approximately 700 000 workers, the majority of whom are unskilled and illiterate.

For workers, environment includes health and safety, education, hostel conditions, the effect of the migrant labour system, and the impact of retrenchments and foreclosure on the land and its people. Attention will have to be paid to social, political and economic conditions in formulating an holistic policy on environment and the RDP.

A typical miner comes from a remote village. At home women bear the brunt of the migrant system. They are forced to denude forests for cooking and heating, and depend on subsistence farming. Alienated from his family the mine worker is sealed off in security controlled hostels sharing a room with fifteen to twenty others. Paid on average R600 a month, little can be sent home to improve conditions for his family.

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Mining is inherently dangerous and the life and health cost is staggering. Over 69 000 mineworkers have died and more than a million have been seriously

injured since the turn of the century. In 1993 more than 578 mineworkers died in accidents and 8532 were seriously injured. To quote one miner:

"The hanging fell where there was no support. We had reported this to the team leader who went to the white miner. The white miner told him to tell those people, if they do not want to work they must take their clothes and go to the surface. I do not know if the white miner got into trouble because I was in hospital."

This is the reality of the mining industry in South Africa.

NUM is an affiliate of COSATU and has been instrumental in formulating the RDP. It is also a member of the Miners' International Federation which has adopted the following resolution:

"Mining must not be the predatory exploitation of nature. In the same manner as the deposits are to be developed continually in a careful manner, it must be ensured in extraction that avoidable environmental burdens are stopped and unavoidable ones limited."

NUM, in its 1993 Congress, adopted a resolution recognising the importance of the environment and of sustainability of work. However the one must not be at the expense of the other.

The NUM has long called for the state administration of mineral rights. However in the high investment long term return economic realism of mining, investors need to be reassured of their right to mine and that their investment is secure. In revising mineral rights all stakeholders must be consulted to prevent capital panic.

A health and safety commission proposed by the NUM and finally agreed to by the Chamber of Mines has completed its hearing of evidence. We expect its recommendations are going to result in far reaching changes in health and safety in this industry. This will include greater worker participation from legislation to application and monitoring.

The recent signing of in principle agreements with the Chamber on Adult Basic Education and Training and hostel democratisation are important first steps to realising the RDP.

The NUM social plan is critical within the industry. Just as the rehabilitation of the land is important, so is retraining and skilling of retrenched mine workers. The social, economic and environmental impact of retrenching mineworkers with no skills other than those applicable to the mining industry, joining the army of unemployed and the abyss of poverty is

enormous. The principle of the "polluter pays" must be extended into the social realm. The mining industry created, supported and profited from the migrant labour system. Workers are unskilled for any other industry - reskilling, training prior to foreclosure is a responsibility the mining magnates can no longer ignore in the interests of the workers and the country as a whole.

The governance of the mining industry involves many players, however the DMEA has the central governance role. It has traditionally been the bedfellow of large mining houses. Its role in promoting mineral exploitation conflicts with its role in monitoring health, safety and environmental standards. The advisability of removing responsibility for these areas must be further investigated.

In contrast to the NUM, the environmental programme of the mining houses and the DMEA is neither holistic nor democratic. It centres on the introduction of EMPRs which cover the environmental impact of a mine during its life to the point where a closure certificate is issued. They are packaged and marketed by the mining industry as a standardisation and simplification. Let us not be fooled by the gift wrap. There are serious problems:

1. Quality control is done by a mining engineer who has undergone "a short course".
2. Objectively regulation by the DMEA is doubtful.
3. People and environment are not integrally linked.
4. Social impact assessment is ignored in the decommissioning stage and no funds are allocated to mitigate the disastrous effects on mineworkers and mining towns.
5. Consultation is restricted and exclusive.
6. No mention is made of interested and affected parties (IAPs).
7. No provision is made for impacts not predicted after closure.
8. Equality and social justice is simply not raised in the technically correct EMPR. It is the poor who reap no benefit from mining who finally pay the heaviest price.
9. After decades of degradation and environmental apathy, the motivation for an environmental programme seems to be: "Rather controlled self regulation than enforced hostile legislation." Allowing mines to monitor themselves is like the fox being paid to protect the chickens.
10. Labour had no part to play in the formulation of these policies. The mining industry have built the ferris wheel expecting worker organisations to sell the tickets and workers to take the ride.
11. The ultimate question "should we mine in this area?" - is never asked.

It is imperative that workers and environmentalists

do not see their interests as mutually exclusive. Capitalists have tended to use the environmental lobby as a threat to workers' livelihoods. It is impossible to tell a worker to appreciate the view on an empty stomach. Conversely, the creation of work has long been reason enough to excuse environmental degradation. Workers and environmentalists, the former at the forefront of environmental degradation and the latter with the skills and knowledge, should unite to formulate holistic policies to protect the environment and sustain economic activity.

A great challenge faces South Africa, with the need for accelerated economic growth and development which inevitably leads to pressure to over-exploit the environmental resource base. Historically economic development has not been guided by concern for sustainability. The irony is that the environment underwrites the viability of economic growth. Thus the environment will have to be identified as a development priority. Mineworkers are committed to the success of a holistic environmentally friendly RDP for themselves, their families and future generations.

Sustainable development and small scale mining

Nchaka Moloi

Mineral and Energy Policy Centre

The RDP links redistribution with growth to provide the majority of South Africans with an opportunity to participate meaningfully in the economic mainstream. A pivotal aspect of the RDP is the promotion of small and medium scale enterprises (SMEs) including small scale mining (SSM).

SSM is generally viewed as an ecological disaster with a poor health and safety record, and little to contribute to national economic growth and development. This overlooks the fact that these problems are consequent on policies which make it illegal in many countries.

To create an enabling climate for the development of a viable and sustainable SSM sector, it is necessary to formulate policies which seek to balance realistic environmental goals with other societal goals like job creation, empowerment of the historically disadvantaged sections of our communities and redressing the imbalances of ownership in the mining sector created by apartheid. SSM policy formation should be based on economic development and sustainability, and should encompass considerations of:

- * Efficiency - would economic benefits exceed environmental costs?

- * Equity - would the benefits and costs be distributed fairly among the individuals comprising the present day society?
- * Sustainability - would the benefits continue to exceed costs over intergenerational time?

The benefits of SSM are:

- * low investment costs;
- * a short implementation period;
- * the realisation of a national asset;
- * better utilisation of the mineral deposits in SA, by the exploitation of scattered, otherwise unexploitable mineral resources;
- * empowerment for the previously disadvantaged South Africans, creating equal opportunities, regardless of race or educational standard;
- * job creation in both mining and related industries;
- * creation of business opportunities for individuals, co-operatives and small companies.

Constraints to the development of SSM include lack of access to mineral rights, an inappropriate institutional and policy framework, and a mining culture dominated by large ventures.

Access to mineral rights could be addressed in the short term by direct negotiations with the current holders, and in the long by returning mineral rights to the state. State licencing could then be managed to avoid sterilisation of mineral resources.

A positive government policy geared towards creating an enabling climate for SSM is a fundamental requirement if this sector is to succeed. Institutional support is proposed in the form of a Small Mines Bureau. The SMB will play a facilitating, co-ordinating and supporting role to SSM by networking with and mobilising funds from the existing government structures and the private sector.

South Africa has developed expertise in deep level gold mining and other big projects. The big mining houses are not interested in small deposits which are currently sterilised.

There is no strong tradition of SSM in South Africa. This means that the local authorities do not have an understanding of the sector and lack the capacity to respond to its needs.

Environmental equity is of concern because people depend on the environment for survival.

The question that needs to be answered though, is whether future generations will be worse or better off as a result of today's natural resource management strategies.

A unidimensional focus on pollution related health risks may blind us to the health toll that unemployment, poverty and associated social ills could exact when economic growth is stalled. Decisions in this regard should be based on thorough cost-benefit analyses.

Economic growth improves the quality of life of

people. SSM should not only be viewed as negative to the environmental well-being but also as contributing positively to economic growth and thus increasing the capacity of all to enjoy and protect the environment.

In contrast to large operations, SSM is best suited to the development of local entrepreneurs integrated into the local economies. Combined with SME complexes, it can play an important role in the development of local and regional economies. RDP housing and infrastructure building will, to a large extent, depend on the availability of industrial minerals which are likely to be provided by SSM operators.

Yet the environment, health and safety record of SSM is generally poor. Preservation of the environment is not a principle that needs justification. The following measures are appropriate to avoid the damaging effect of SSM on the environment:

- * introduction of an environmental rehabilitation trust funded by levy on output and by the state;
- * education on environmental management as a prerequisite to being granted a mining authorisation;
- * development of a support system to monitor environmental and health and safety standards;
- * establishment of a Small Mines Bureau with regional environmental inspectors.

Henk Coetzee **Earthlife Africa**

A while back, a colleague and I were talking about mining. We are both professionally involved in environmental assessment and rehabilitation in the mining industry. He reflected that his training as a mining engineer was a training in how to destroy things most effectively.

What is an industry based on destruction doing as a discussion topic in a conference on Reconstruction and Development? The answer is simple: mining will play an important role in the reconstruction of South Africa.

I sometimes still get the opportunity to work in my old field which is mining exploration. The last two projects I have worked on are significant in terms of the RDP. They involved zinc for roofing and building aggregate for road building and cement. Mining is one of the major sources for the raw materials which will be used in the reconstruction and development of South Africa. It is also the country's largest single source of export income.

Part of the legacy of mining is the pollution and degradation of the environment. In recent years, exposure of specific cases, such as the pollution of rivers in the Barberton area, asbestos pollution in the Eastern Transvaal, and growing questions around the impact of gold mining on the water and soils of the Witwatersrand, have placed mining in the spotlight.

The controversy surrounding the planned mining of St Lucia, and the massive public resistance to the project, shows that the public are not going to be fooled by glib greenwashing and public relations. At the same time, projects which can provide jobs and incomes for people cannot be summarily dismissed.

Mining laws require environmental assessment and planning and the allocation of funds for rehabilitation after mining. The application of these laws has been criticised as promoting the interests of the mining industry above those of the public but, by and large, the space exists for strict enforcements of environmental standards. This then becomes a challenge to environmental organisations and unions to force a shift in the attitude of the authorities.

Clean production has been part of greenspeak for a long time, but the mining industry is still a long way off closed cycle, waste free production. One thing which is filtering through is that cleaning up the mess after mining is a lot more expensive than not making a mess in the first place.

More difficult than adapting, developing and applying technology to problems, is changing attitudes. At present, the mining industry is something of a sacred cow. Because it brings in foreign exchange it seems to function as a law unto itself beyond criticism. This poses a challenge to the government: handle the mining industry as a partner in the RDP and enforce equality with other partners. The mining industry must begin to operate transparently, as must the rest of society.

This brings us to another of the RDP principles: finding a way in which the people of the country can share in the wealth of the mineral industry. At present mineral rights may be privately owned and the law makes it possible for the owners to reserve their rights to minerals. Small operators are often denied access to undeveloped mineral deposits because large mining companies have sterilised them in case they may one day decide to mine. The Mission on Environmental Policy and the RDP both recommend vesting mineral rights in the state. This and other policy proposals need to be discussed if the RDP goal of stimulating small and medium scale mining is to be achieved.

Another important aspect of the RDP is health and safety. Mining is dangerous but workers are often not fully informed of the dangers and play a small part in safety planning. Health and safety must be improved and mineworkers must be a major role player in the process. Again, greater transparency on the part of the industry is a prerequisite for better health and safety.

Finally, I want to look at the future of the mining industry. A classic tale is currently unfolding in Boksburg. Reserves at the old East Rand Proprietary

Mines are running out. Fingers are being pointed: it is the government's fault, it is the mine owner's fault, it is somebody else's fault. In reality, it is nobody's fault. It is what happens to mines.

Both the RDP and the Mission have identified this problem in its microcosmic form. They recommend redundancy packages and retraining of workers at marginal mines. The Mission goes so far as to recommend the institution of a tax to facilitate these measures.

More important, we must look at the macrocosm of this problem. Mining is, by its nature, unsustainable. Eventually, all mineral deposits will have been mined. So in the long term we need to look at alternatives to mining. These may include recycling and reuse, alternative materials, or a change in production and consumption patterns.

A truly green RDP will acknowledge mineral resources as finite and start to lead South Africa away from its current dependence on minerals. It will also try to make the best use for South Africa of its minerals and encourage the development of mineral processing and beneficiation so that we don't simply export our natural resources in their rawest form.

In summary, greening the mining industry presents three major challenges. The first relates to the health and safety of workers and the environment. The second involves making mining more accessible to all South Africans. Finally, South Africans must recognise that mineral resources are finite and plan accordingly.

Discussion

The mining commission discussed each paper as it was presented. There was also discussion of an ANC draft environmental policy for the minerals industry. The draft will be published early in 1995.

Paul Jourdan in the chair, opened the commission on mining with a discussion of the relevant section of the conference Briefing Papers.

Delegates responded by noting the need for greater exploration of the impact of mining on women. It was stressed that women carry not only the costs of the reproduction of labour, but also the burden of appalling health and safety and fatality rates for miners.

The political and social organisation of the mining sector per se could be explored more. Because of the economic significance of the mining sector, criticism of its power and impact tends to be muted. We must look honestly at the fact that mining constitutes a profit oriented cartel that is largely beyond state sanction.

With regard to mineral rights, it is necessary to explore the consequences of a policy shift towards vesting mineral rights with the state in relation to all

relevant aspects (especially, people and the environment). We must ask whether such a shift enhances the accessibility of the mining sector. It was noted that the mechanism currently enjoying favour within the ANC Alliance is the introduction of a tax on mineral rights similar to the system used in Botswana. This would make companies less inclined to hold onto unexploited mineral rights and could provide a transitional step in returning mineral rights to the state.

Discussion of Louw's presentation focused on the process of the environmental management programme (EMP) reports. It was clarified that the following are the main stages of the EMP process:

1. get mining authorisation;
2. draw up an EMP in accordance with the Aide Memoire referred to in Louw's paper;
3. submission to the regional director of the DMEA (who checks with other relevant departments) is followed by an on site meeting called by the prospective mining concern. "Interested parties", determined by the mining concern, are invited to give input. All suggestions are minuted and an amended EMP is resubmitted to the regional director;
4. all being satisfactory, approval for mining is granted.

By this stage the EMP is a legal document.

The following problem areas were identified as requiring further debate:

1. prior to step one above should be the question as to whether to mine or not at all;
2. the definition of "interested parties" is inadequate and cannot be determined solely by the prospective mining concern;
3. although the EMP becomes a legal document, there is no provision spelling out how monitoring and auditing should proceed.

In discussion of James' paper, the following were identified as key themes:

1. our definition of "environment" must include human and working environments, and consequently, health and safety issues should be regarded as being squarely within the scope of environmental issues;
2. the definition of participation and consultation must be broadened;
3. a holistic approach is needed;
4. there is currently and historically a fundamental bias towards mine owners in terms of the management and policing of mining in South Africa - all the relevant processes and departments are run by owners;
5. the question of the ownership of mineral rights must be addressed;
6. alliances between mine workers' unions and progressive environmentalists should be built.

In discussion of Coetzee's paper, key themes were

identified as follows:

1. the importance of mining must be recognised;
2. transparency and participation are needed;
3. South Africa needs to move away from economic dependence on mining;
4. part of the proceeds from mining should be invested elsewhere (e.g. human resource development)
5. building our capacity for beneficiation could also be enhanced through application of 4 above;
6. the size and impact of the current organisation of mining interests is anti-democratic and vests too much power in the hands of owners' cartels;
7. mining interests should bear costs that are usually externalised;
8. the activities of South African mining companies outside of South Africa should be governed by at least the minimum guidelines applicable within the country, e.g. when undertaking ventures in Africa.

A general discussion of all issues raised in the Commission was divided into:

(a) highlighting major issues and principles of policy; and

(b) review of the EMP process.

(a) Major issues and principles of policy.

1. Alternatives to the present mineral rights regime, which is not conducive to sustainable development, should be investigated.
2. The definition of environment needs to be expanded to include remote impacts.
3. An holistic approach to understanding mining issues must be developed to include environmental, developmental and social issues relating to workers, women and labour supplying communities.
4. It is necessary to move away from dependency on mining in the economy and encourage beneficiation, re-investment, re-skilling etc.
5. It is necessary to decrease the power of mine owners.
6. Total costing should be enforced so that "external" costs are borne by mining concerns, including costs associated with the environment and the destination of mining wastes etc., and those presently carried by labour supplying communities especially in rural areas.
7. Small and medium scale mining enterprises should be encouraged.

(b) Review of the EMP process.

Initially it was felt that, since the current legislation was drafted fairly recently (1991) and addresses many current issues, discussion should focus on reform of that legislation rather than rejection. Delegates saw obvious merit in this approach since it means not having to start from scratch and "re-invent

the wheel".

However, after much discussion of the relative weaknesses and strengths of the existing EMP framework, the consensus had shifted to rejection of the present set up as too flawed. It should be replaced by an Integrated Environmental Management (IEM) framework, drawing on the highest international standards and practices.

Adoption of an IEM framework would mean that independent Environmental Impact Assessments (EIA) would replace the existing environmental management programme report (EMPR) which was agreed to be too restrictive and bureaucratic. This is in line with the findings and recommendations of the IDRC Mission. Such a policy shift would also mean that the existing assumption of the right to mine by virtue of owning mineral rights would no longer necessarily apply - i.e., a mining right would in all likelihood only be granted dependent on the results of the independent EIA.

Adoption of an IEM framework would also imply a holistic and inclusive broadening of the definition of "consultation with interested and affected parties".

A further weakness of the present regime identified was that all present procedures and mechanisms for environmental monitoring and the like are vested with the DMEA with its historic bias toward mine owners.

This should be transformed through the creation of a new, independent, integrated, cross-sectoral, cross-departmental environmental agency.

This weakness also highlights a lack of capacity for independent environmental monitoring and auditing of industries like mining. It was suggested that:

- * the design of monitoring systems and mechanisms be shifted away from mining companies only;
- * information and data so collected should be in the public domain, especially those sectors of the public which might broadly be defined as being interested and affected. Again, this implies the need to build independent capacity for design and implementation of monitoring (even if, for cost effectivity, mining companies remain responsible for much of the data collection).

The aim of more stringent and transparent environmental evaluation of the mining industry is not to stifle the mining enterprise but is rather the attainment of more sustainable mining practices (and therefore the halting and/or prevention of mining practices deemed environmentally unsustainable and too damaging) with greater access for small and medium scale mining enterprises.

While the multiple use of natural resources might usually be considered optimal, sometimes mining may preclude other end uses and therefore may not be justified (e.g. on environmental grounds).

Waste and sanitation

Chair: Anne Sugrue
Group for Environmental Monitoring

Introduction

Anne Sugrue

Rachel Carson, in her book *The Silent Spring* said:

"We stand now where two roads diverge ... (one is) a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other ... offers our last ... chance to reach a destination that ensures the preservation of our earth."

I welcome you to this commission on waste and sanitation. The RDP is about implementing development policy at the level of people without houses, services or jobs. The purpose of this conference is to ensure that the process of upliftment is environmentally sustainable.

300-500 million tonnes of waste are produced in South Africa of which 2 million are hazardous. A very small proportion of our landfills are licenced and many are located near townships. 147 tonnes of waste are poured into our skies from industries, cars and coal and wood fires. Our water resources are under attack from many pollution sources including industry and sewerage. 19 million people lack adequate sanitation and the impact on health is considerable.

Pollution monitoring and regulation is spread between 13 national government departments. This is complicated by the new provincial structures which have an as yet undefined control over environmental issues.

However, we have the opportunity to create effective policy and legislation in our new democratic dispensation. The lack of waste and sanitation facilities provides us with the chance to introduce environmentally sustainable systems with a maximum benefit to communities. We have also inherited a powerful NGO and CBO sector. We need to use these organisations to create a South Africa with a strong legislative framework within which we can implement the RDP in a sustainable way.

Willem Scott

Department of Environmental Affairs and Tourism.

Environmental Affairs and Tourism (DEAT) is the smallest government department and has a huge mission. It has to protect and maintain ecological processes, preserve biotic diversity, safeguard the

country's cultural and historical heritage, establish norms and standards for the use and rehabilitation of the environment, promote tourism, and maintain a healthy living environment for present and future generations. Sanitation falls under the Department of Water Affairs and Forestry (DWA).

The DEA has initiated a number of strategies to attain its objectives.

It commissioned two reports from the CSIR: *The situation of waste management and pollution control in South Africa* and *Hazardous waste management in South Africa*. General findings were that waste management and pollution control are complex, valuable raw materials are converted into useless waste within a throw-away culture, management concentrates on disposal, participation and coordination is lacking, there is no comprehensive national policy or legislation on waste and authority is fragmented.

Litter and waste is a major source of pollution in townships and informal settlements. Deputy Minister Bantu Holomisa called a PWV forum meeting, including representatives from government, communities and business, on 25 August 1994.

The problem was identified as resulting from the absence of services. Services have been suspended because communities have been reluctant to pay for them. Communities don't pay because services have been inadequate. The situation results from a shortage of funds and inadequate infrastructure, staff and communication, from overcrowding and inadequate education.

Funds should be allocated to local authorities to reinstate or establish services. Thereafter communities should be charged normal taxes and rates. Services should be suitable to specific situations and communities should be educated and motivated to use the services.

Waste management is a key component in environmental protection. Government policy and legislation concerning landfill sites, waste removal, recycling, waste minimization and littering have to be re-evaluated in terms of the RDP's conception of environment as part of development.

Since 1991 existing and new disposal sites must operate under permits from the Department of Water Affairs which consults with the DEA and the Department of Health. Operators have to apply set standards and are regularly inspected. The DWA has published a waste management series for comment and discussion.

The DEA is formulating an holistic and integrated waste management approach. Policy objectives are defined by the following hierarchy: waste minimisation and avoidance; recycling and re-use; treatment and handling; storage and final disposal.

Radioactive waste was excluded from the scope of the policy but this decision will be reconsidered.

Management of hazardous wastes and hazardous substances is now top of the environmental agenda. An effective and efficient regulatory system is needed to protect human health and the environment and to meet the requirements of the Basel and other international conventions.

The DEA has published a draft policy for comment on hazardous waste in the Government Gazette [30/10/94]. A draft policy on the Safe Management of Dangerous Materials will be published shortly and is available from the DEA.

The National Holistic Policy on Integrated Pollution Control (IPC) should include waste management policy. The IPC project aims to achieve sustainable social and economic development while protecting air, water and land resources. It will also address the fragmented state of the environmental laws and regulatory authorities.

Phase I produced the *Project Framework and Plan* which describes the strategic process of developing the policy. The document is available from the DEA. Phase II will address the following issues:

- * environmental and technical issues relating to management of air, water and land quality and waste;
- * economic issues, considering the economic effects of alternative models of IPC;
- * developmental issues focusing on waste producers; and
- * institutional issues concerning existing mandates.

Interested and affected parties (IAPs) are invited to contribute to the process so as to ensure a balanced policy. Ensuring participation has proved difficult to date with a low response to invitations.

Economic development issues have, in SA, been dominated by resource supply through the application of engineering solutions. The neglect of demand management has resulted in wasteful use. Resource supply and demand have to be balanced.

The current investigation of policy options relies on public participation to ensure that economic and environmental policies support rather than impede each other. Policy must be based on the principles of equity, access, empowerment, public involvement and public accountability.

The polluter pays principle is central to a market (or economic) based approach to environmental management. Provided that environmental resources

are correctly priced, the market will be utilised as an equitable environmental resource allocation mechanism. Since many of SA's environmental problems stem from poverty, a policy which taxes the damaging activities of the developed economy to overcome those of the developing economy would be appropriate.

Government cannot achieve the goal of sustainable development on its own. We need to build partnerships with all sectors of society, especially with industry. This will only be possible if there is adequate access to information within organisations, not only for government but also for the public.

A discussion document, *Towards a national policy for the use of environmental economics in environmental management* is available from the DEA.

We believe that the protection of the environment and the pursuance of sustainable development must be an integral part of economic policy and development planning. The DEA therefore intends preparing a departmental RDP White Paper outlining its vision for the future.

Hazardous waste and the RDP

Peter Lukey
Earthlife Africa

Water is South Africa's most limiting resource. The diversion of Lesotho's water to the dry PWV is a monumental but short term solution to our impending water crisis. Water supply and the provision of sanitation is thus one of our greatest challenges. The puzzle is, why are we still dumping hazardous substances into our most precious resource? To answer this we need to look at a bit of history.

Fortress South Africa - the early years of sanctions and disinvestment - produced an economic boom and high corporate profits. Many economic arguments are used to explain this but one argument is seldom heard. Health, safety and environment laws protected profits by allowing industry to externalise their costs of production. Disenfranchised South Africans paid the price, often with their lives.

Environmental racism was identified by a 1987 study in the USA. It found that three out of four toxic waste facilities were located in poor black or Hispanic communities. GEM is doing a similar survey here but the results are predictable.

South Africa is a microcosm of global socio-economic imbalances. Huge multinationals produce luxury goods and toxic chemicals alongside impoverished shanty towns. Agribusiness ploughs in thousands of tons of chemicals to produce cash-crops

while rural people do not have enough to eat.

Apartheid education has produced another imbalance. Communities and workers are unaware of the hazards of chemicals or radiation. **Secrecy** and covert dealing, particularly in the nuclear industry, has exacerbated the problem.

The RDP offers a brighter future. The first paragraph of the RDP White Paper defines the RDP as

"an integrated coherent socio-economic policy framework. It seeks to mobilise all our people and our country's resources toward the final eradication of the results of apartheid and the building of a democratic, non-racial and non-sexist future."

It identifies the transformation of South Africa with developing democratic institutions and practices, prosperity based on sustainable and environmentally friendly growth and development, and the moral and ethical development of society.

This crystallises the real solution to hazardous waste. The RDP has become a band wagon and invites everyone to climb aboard. That is as it should be, but it could be derailed by those who wish to retain their privileges.

Free-market capitalism provides no incentive to reduce, re-use or recycle waste. It is cheaper to dump or burn it. Profit maximisation by waste disposal companies can only be achieved by exploiting workers, the environment and communities living in that environment. Without strong state intervention, costs will be externalised.

Growth at all costs represents a trap because the costs will be borne by the poor and the vicious circle of social imbalance will be maintained. The term "sustainable growth" is used throughout the RDP. Unfortunately the term is meaningless. It implies that something can grow for ever. This is certainly impossible in terms of biological life and is economically impossible when constrained by limited resources.

To improve the quality of life of the majority of South Africans and redress the imbalance of the past, economic growth in the context of sustainable development is necessary. In the context of hazardous wastes, growth at all costs creates waste and offers no incentive for its reduction.

The hazardous waste policy proposal of the DEA illustrates a final threat to the RDP. In by-passing RDP principles, it uses RDP language.

It proposes legalising the import and export of toxic wastes to ensure continued "prosperity and employment" and to "protect and maintain existing commercial relations". It proposes that a "sub-region" within South Africa should be set aside for dumping imported toxic wastes. It claims,

"It is not in South Africa's interest to ban all transboundary movement of hazardous and other wastes."

One has to ask which South African interests are being represented here.

Earthlife Africa has called on government to unconditionally ban the import and export of toxic wastes and to sign the Bamako Convention.

Exporting countries pay seemingly high prices for getting rid of wastes but know that the real costs are much higher. The policy argues that, because South Africa is poor, it should adopt lower standards than those used in industrialised countries. This assumes that the lives of South African workers are worth less than those of northern workers and that our environment is worth less than theirs. The document accepts that operators will determine their own disposal methods and standards. This will mean poor standards where there are poor and disorganised communities living nearby.

There is no evidence to support the claim that a ban on the trade will cost jobs. This part of the policy is taken word for word from the Industrial Environmental Forum. The IEF have admitted that they have done no research to support the claim.

At a recent conference on the proposed policy organised by the Group for Environmental Monitoring (GEM), Pelelo Magane of the Chemical Workers Industrial Union said:

"Workers reject the concept that buying labour includes buying life."

The International Mission on Environmental Policy addresses a broad range of South African interests. A selection of its recommendations on waste management are included in the Briefing Papers to this conference. With these two documents we are finally in a position to consider the RDP challenges.

For **sustainable development** there is only one solution to toxic waste - don't produce it. Clean technologies must be introduced to eradicate or reduce toxic production and reuse and recycle wastes. Until disposal is regarded as a last resort we will have sustained impoverishment and not sustainable development. Sustainable solutions to waste management should be given priority over short term economic arguments.

People must know the dangers of producing, transporting and disposing of hazardous substances and **bureaucrats must be educated** to the concepts of participation and people driven policy.

In conclusion, hazardous waste may fall way down the RDP list of priorities, but if not addressed within the planning of development, the health, safety and environmental costs that will have to be paid by all

South Africans will surely outweigh any short term gains.

Maria Mbengashe

Community Environment Network, Port Elizabeth

The greatest challenge facing South Africa is how to address the basic needs of urban and rural people on a sustainable basis irrespective of class, colour or gender.

That **human rights and the environment** are linked is now recognised world wide. *The Draft Principles of the Final Report on Human Rights and the Environment* (1994) declares:

"Human rights, an ecologically sound environment, sustainable development and peace are interdependent and indivisible."

The Interim Constitution has handed South Africans the right to a healthy environment. The RDP also signals that greening is integral to the confluence of social and economic goals. It encourages participation at all levels of the statutory process, thus lifting environmental rights to the status of national human rights.

This echoes international developments. *Agenda 21*, the *Rio Declaration* and the *NGO Earth Charter* all recognise that unless the needs of marginalised communities are met, environmental degradation will continue.

South Africa's development and environmental problems are closely linked to the political and economic powerlessness of our recent past. The Land Act (1913), the Group Areas Act (1960), and the Black Local Authorities Act (1982) are just three apartheid laws which ensured environmental discrimination and injustice.

There is a myth that disadvantaged communities are unconcerned about environment. Another myth is that a few trees and a bit of recycling will solve their environmental problems. These misconceptions are rooted in a narrow definition of environment which trivialises and depoliticises the environmental concerns of the majority of South Africans and disregards their cultural relations with nature.

The political struggle in this country was also about sharing natural resources though it was not articulated as an environmental issue. Rural and urban people were concerned about their land, about shelter, water, sanitation, waste collection and management. Local government, as provider of basic services, has been a prominent arena of struggle. It was the mainstream environmental groups which failed to link environmental issues to social, racial and economic justice.

Environmental racism and injustice is denying people access to land, water and sanitation, deliberately siting polluting industries and dumps near black

communities, and racial discrimination in environmental policy making, planning legislation and enforcement. The legacy of apartheid is segregated, degraded, overcrowded and impoverished urban and rural areas.

Water scarcity and misuse puts at risk health, welfare, food security, industrial development and the ecosystems on which they depend. It is essential that our water resources are properly managed but serious problems are evident in all aspects of water management including supply and demand, water quality and the maintenance of aquatic ecosystems.

At the end of the International Drinking Water Supply and Sanitation Decade (1981-1990) the World Health Organisation finds 1000 million people without safe water and 1800 million without sanitation. In South Africa, 12 million people do not have access to clean water and 21 million have no sanitation. 8% of water is used for domestic consumption with white households consuming 250 to 300 litres per person per day against the WHO standard of 50 litres. In the Eastern Cape, rural people consume 9 litres, rural towns people consume 19 litres and urban people consume 80 litres.

The failure of Black Local Authorities to provide basic services has made townships to be disease incubators. Two million people rely on the inadequate and irregular collection of buckets. 500 000 have no service at all. 5 million urban people rely on pit latrines. Blockages and breakdowns are common where a full flush system is in place.

Water borne diseases are common. Globally, improvements in drinking water and sanitation can reduce the overall incidence of infant and child diarrhoea by one quarter and cut infant and child mortality by half.

Waste generation by industry, mining, importation of toxic waste and by domestic households is a major problem.

The temptation for hard currency could make South Africa a victim of toxic dumping by first world countries. The risks have been demonstrated at Thor Chemicals. This indicates the weakness of the Basel Convention's controversial Green List which allows countries to decide which wastes are hazardous and which can be recycled.

Disposal of hazardous and domestic waste is an increasing problem throughout the industrial world. The lack of a coherent policy compounds the problem in South Africa and combines with an 'end of pipe' approach focusing on disposal rather than reduction at source.

Of 182 sites investigated by the CSIR, only 12% were licenced, little was known of the health, safety and environmental status of 42% of sites, 57% have control problems and the potential for ground water contamination was identified on 22% of sites. Illegal dumping is also common. The effect of badly managed

dumps on the health of women and children in particular still needs to be assessed.

The Chloorkop controversy indicates the need for the participation of local communities. Industrial secrecy about the chemical composition of products and waste prevents workers and communities from knowing what they are dealing with.

Integrated waste management should become a central tenet of cradle to grave management together with the polluter pays and the precautionary principles.

Environmental justice is about social transformation directed at meeting basic needs and enhancing the quality of life, using resources sustainably and practising democracy. It is about eliminating privilege and exploitation. It is about informed communities who participate in decision making processes. It is about incorporating ecological issues within a larger social justice agenda for change.

The RDP's emphasis on basic needs will direct a greater proportion of government spending at local level and implementation will depend on democratic local government in rural and urban areas. In Brazil

and the USA, in Africa and Eastern Europe, central governments are returning power to local government to implement environmental policy because problems are best solved where they occur and by those most directly affected.

The period of reconstruction and development offers NGOs and CBOs the challenge of ensuring that citizen's participation takes place, and of creating a holistic and critical approach to environmental understanding. An issue-based, problem solving and action oriented approach to environmental education is imperative. Education must develop skills and an understanding of the political and economic nature of environmental problems.

In conclusion I would like to quote Barry Commoner:

"When an environmental problem is probed to its origin, it reveals an inescapable truth - that the real root cause is to be found in how men interact with each other, that the debt to nature cannot be paid person by person in recycled bottles or ecologically sound habits, but in the ancient coin of social justice."

Ian Palmer,

Palmer Development Group,

Sanitation is the safe disposal of body wastes (urine and faeces) in a way that prevents people touching it, prevents flies getting to it and then settling on food, and prevents excessive odours. The technologies available in South Africa are shown opposite.

With on-site systems, solid wastes must be removed using a vacuum tank or other means.

The Blair system pit latrine is otherwise known as a VIP (ventilated pit latrine). The vent pipe eliminates flies and odours, it has a good pedestal, platform and pit.

Off-site systems require a centralised waste-water treatment works with discharge into river or sea.

Full flush systems use a lot of water but this is much reduced with intermediate flush systems.




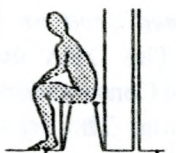
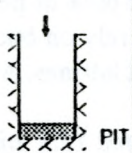
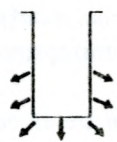



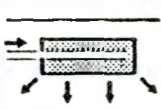

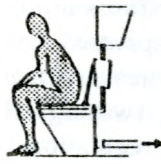





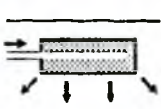


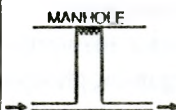


The factors influencing the technology choice are:

- * health benefits;
- * costs;
- * convenience - nearness, comfort, style;
- * social status - there is resistance to appropriate technologies because they lack prestige;
- * ease of construction and use of local resources;
- * ease of operation and maintenance;
- * environmental impact of the system.

The costs of the different systems are as follows:

Costs	Waterborne	Loflos	VIP	Buckets
Capital	R3 700	R1 200	R1 800	R600
Operation and maintenance	R303	R92	R47	R268
Net present value	R7 970	R2 500	R2 460	R4 380
Overall cost per HH per month	R47	R15	R15	R26

Sanitation technologies available in South Africa

TYPE OF SYSTEM		FLUSH VOLUME (litres)	ON SITE TREATMENT	LIQUID DISPOSAL	SOLIDS DISPOSAL
BUCKET		0			
VIP		0	 PIT		
AQUA-PRIVY with onsite disposal		1	 DIGESTER		
AQUA-PRIVY with solids free sewer		1	 DIGESTER		
SEPTIC TANK		10 - 20	 DIGESTER		
WC (INTERMEDIATE FLUSH)		3 - 6		 MANHOLE	
WC (FULL FLUSH)		10 - 20		 MANHOLE	

Present provision of sanitation:

Access of urban and peri-urban population to different levels of sanitation:

Sanitation Type	Population
Full water borne	15 718 000
Septic tank	439 000
Bucket	1 926 000
VIP Latrine	266 000
Unimproved Pit	5 253 000
Other	398 000
None	491 000
Total	24 491 000

The total of 24.5 million is the estimate of the urban and peri urban population. So some 60% of people have full flush systems, nearly 8% rely on buckets and some 21% have unimproved pit latrines. About 2% have nothing.

In rural areas, there are an estimated 15.5 million people. 35% of them have no sanitation and use the bush. 60% have unimproved pits. They are self-built and some are of good quality but they are not ventilated. 5% have improved sanitation, mostly VIPs and septic tanks.

The impact of sanitation systems on the environment:

Pit latrines can release viruses, bacteria, phosphates, and nitrogen into the air. Digestion reduces the organic content while excess liquid drains into the soil and can cause biological degradation in soil near pit latrines. Organic matter is destroyed and viruses and bacteria are filtered. Phosphorus is absorbed by the soil. The primary problem is that nitrates travel a long way in ground water. There is some argument about the effects of nitrates in drinking water. Some say nitrates cause anaemia and heart conditions but others argue that pit latrines have been used for centuries and nitrates do not represent a big problem.

Water borne systems are associated with sewer blockages in many areas. This results in raw sewage running in streets and into rivers with serious health and environmental consequences. Treatment works are also sometimes overrun. Chlorine is used in the treatment of wastewater. In overflow situations rivers are polluted with organics, phosphorus, bacteria and viruses.

Potential environmental benefits from sanitation:

- * Sludge, from pits or treatment facilities, can be used in agricultural compost;
- * effluent can be used for irrigation;
- * biogas digesters produce methane which is an energy source.

Discussion

Discussion in the commission on waste and sanitation was conducted within the group as a whole and in small groups. Delegates agreed that there is a need to define sustainability and public participation [see Box 2].

Small groups discussed sanitation and four groups were tasked to address specific aspects of waste management: waste minimization; community based systems; pollution control; and hazardous wastes. The results were collated in relation to the conference tasks and are shown in Box 1.

Government and public and community participation were of central concern to delegates.

They questioned Scott on legal functions and time frames. The DEA deals only with the Environment and Conservation Act of 1989 and with coastal protection. The separation of functions between national and provincial government is being worked out at present. The functions at provincial level are wider than those laid down for the national department. There are 46 different acts which will be consolidated within the DEA. There should be clarity on functions by January.

Delegates discussed the role of the proposed national environmental advisory forum, whether it should advise the office of the President or the Ministry of Environmental Affairs or that and other ministries. Caution was expressed concerning the possible proliferation of bureaucracy, meetings, and personnel.

Beyond policy, it was argued, sustainability requires comprehensive regulations and inter-ministerial coordination for environment. Regulations need to be evolved for minerals, trade and industry, housing, etc. Everything relates to sustainability and to the economy so regulation must be coordinated across departments. The DEA should have an auditing function, it should not be turned into a super-power department.

There was some scepticism, however, as to whether Trade and Industry or Agriculture can be trusted to implement environmental protection.

The Mission's recommendations on the structure of authority was endorsed, including the need for an ombudsperson.

The procedure for selecting consultants was also raised. Scott replied that the department called for tenders and selected on the basis of technical competence and price.

Delegates affirmed the principle of subsidiarity: that authority should be devolved to the lowest level possible and the highest level necessary. This is essential for participation, but participation needs to be informed.

Communities need to own the problem and the solution. They must know the costs, resource demands, and sustainability of particular sanitation and waste systems so as to be able to choose between site-specific alternatives. In the interim, short term solutions are needed and Water Affairs should come up with guidelines for local authorities. National government needs to be involved where costs are beyond local means.

Communities should be involved in the establishment of norms and in planning. They need access to education, particularly regarding health. Planning should promote income and job generation. Construction methods must be labour intensive and the use and maintenance of systems needs to be amenable to local control.

Participation must include all interests: children, women, men, local leaders, CBOs and NGOs, and local government.

Delegates were concerned to explore how effective waste management could enhance development rather than dealing with an unfortunate by product of development.

Palmer reported that research on the health impacts of pit latrines is inconclusive. Nitrates in ground water is the issue and the solution is to build pits further away from boreholes.

Sludge is safe to use as a fertilizer after a year. It contains phosphates and nitrates which are important nutrients. But South Africans don't like to use it. Mostly people simply abandon pits when they are full. In urban areas there is concern about the heavy metals content of sludge resulting from industrial flows.

Disposing of organic wastes in digesters (to produce methane gas and compostable sludge) has not been tried but sounds feasible. In theory, there should not be any negative effect of air pollution.

In group discussion it was observed that bio-digesters have no track record in South Africa. If they are to become part of any future infrastructure then there is an urgent need for technical research and development which will make it a viable option for local authorities, communities and institutions. The temptation to bulldoze through decisions on infrastructure to achieve quick delivery should be resisted because inappropriate developments will take a long time to phase out. Inadequate water borne systems have resulted in sewage running in the streets.

Some delegates were sceptical of the relevance of bio-digesters in the South African context. They felt South Africa has developed beyond the point that has made the technology effective in countries such as China and India.

However, the commission concluded that human wastes should be seen as a resource both for energy production and fertilizer for rural and urban agriculture. This would create local jobs and livelihoods.

Delegates therefore affirmed the need to integrate organic waste treatment and sanitation, and hence to separate organic from other solid wastes, particularly at the local level. Higher up, it was argued, it becomes more important to coordinate planning between departments although some say integrated planning should happen at every level. At present, however, there is no integration. Subsidiarity is important to facilitate integration at the point of service delivery.

Structures of government were thus seen as affecting the technical choices available to communities. Conversely, the commission also revealed that technical choices effect how much local job creation, participation and decision making is possible.

The group discussing community based systems of solid waste management was concerned that big companies would dictate technologies and costs. This would reduce local government and community participation to the purchase of a service over which they would have no control. Communities resist paying for services because they have no sense of ownership in delivery.

They took the Alusaf aluminum smelter project at Richards Bay as an example of a technology complex which reduces local choice. The plant is capital intensive and will consume as much electricity as the city of Cape Town. The comparative advantage which makes the project viable is cheap electricity but it is bought at the cost of massive air pollution and waste dumping from Eskom's coal-fired power stations.

At the same time, the cost of aluminium cans will be reduced in relation to the cost of glass bottles. While cans can be recycled, bottles can be re-used and recycled. The group argued for deposit systems which encourage re-use. The manufacture of glass creates more jobs for less energy than the manufacture of cans.

The technical structure of industry was also central to discussions in the groups on waste minimization, pollution control and hazardous wastes. They emphasised the role of national government in creating a regulatory framework to encourage clean production and the need for public participation in legislative processes.

The hazardous waste group endorsed the resolutions of the GEM workshop on the DEAs policy proposals on hazardous wastes [see conference resolutions, resolutions 12.5 - 12.8].

BOX 1**The commission recommends:****Principles of Policy**

- * An integrated approach to waste management.
- * Minimization as the most important aspect of Integrated Waste Management.
- * Adoption of the Polluter Pays Principle.
- * Elimination of hidden subsidies for industries using natural resources.
- * Adoption of Clean Technology.
- * Integrated environmental management incorporating EIA and SEA for all industrial development.
- * A ban on trade in toxic wastes.
- * National government creates the policy framework for provincial and local government.
- * Enabling legislation to encourage industry to recycle and treat waste at source.
- * Use of biodegradable packaging where possible.
- * Punitive measures as part of the Waste Minimization Policy.
- * Sanitation must meet the needs of the community and be appropriate in terms of sustainability.
- * Industry pay a levy into a fund for research and development on waste minimization.

Cross-sectoral issues

Integrated policy for all sectors.

Industry

Waste minimization
Polluter pays
Recycle
Effective legislation (waste/pollution/sanitation)
Clean technology, effective technology

Energy

Waste minimization
Clean technology
Use of natural resources

Water

Pollution
Use of natural resources (sanitation)
Recycling

Mining

Waste minimization
Pollution
Recycling

Land

Pollution
Inappropriate uses (landfills)

Legislation

- * Legislation remains in various departments as recommended by the Mission.
- * That the DEA do an audit of legislation.
- * All pollution/waste related policies be coordinated.
- * An ombudsperson function be established.
- * The DEA be adequately funded for a participatory planning process.
- * The DEA go through a capacity building process to fulfil its expanded role as stewards of the environment.
- * The recommendations in the Mission document should be seriously considered and workshopped on as wide a basis as possible.

Implementation

- * Workshops at grassroots level.
- * Local government implements national policy.
- * Regional forums to identify waste issues and needs.
- * National task team to investigate and document available options

Box 1 continued...

for communities.

- * Communities be informed of options.
- * EJNF, DEA and the RDP office network information to communities.
- * Labour intensive and community-based systems.
- * Community ownership of systems to encourage financial commitment.
- * Deposit systems (5c per bottle) and cash for trash systems be introduced.
- * Recycling plants be situated at landfill sites.
- * Investigation of one person contracts.
- * Projects start small and expand later.
- * Creation of markets for recycled goods.
- * Waste co-ordinators be identified at community level.
- * Development of options for using biogas in homes.
- * Efficiency of flush toilet systems to be addressed.
- * Creation of artificial wetland for treatment of effluent.
- * Current health standards should be assessed.
- * Education of role and proper use of sanitation systems and associated cost.
- * Water Affairs should produce sanitation guidelines - during the short term absence of local authorities.
- * Better monitoring of all pollution.

Research and monitoring

Clean technology;

Waste minimization;

Recycling (markets/products);

Waste audits;

Community-based systems (waste/sanitation);

Economic instruments (tax/fines);

Legislation.

BOX 2**Sustainability**

Security

Social justice

Solidarity

Planning

Balance in development

Transparency and accountability

Community-based

Ecologically sound

Sustainability needs to be reinterpreted
in economic terms.

Public participation

Capacity building

Empowerment

Give voiceless a voice

Transferring power

Address lack of resources

Avoid manipulation

Informed

Emphasis on organisations

Recognise conflict

Be part of decision-making

Participation is not an end in itself.

Energy

Chair: Wendy Annecke
University Education Development Programme, UND

Participants in the energy commission made the following statement as central to any understanding of the broader picture of energy use in South Africa:

The awareness that a substantial percentage of the population exists below the Minimum Living Level must inform policy decisions and will demand specific strategies to ensure energy service provision. Development of such strategies and institutions must be a priority.

Introduction

Wendy Annecke

All energy options, whether electricity, biomass, or anything else, incur problems at the macro and micro levels.

South Africa does not, however, have an energy policy at present. It has an electrification strategy. The two are often seen as synonymous in the minds of the public but in reality, and particularly for the poor, they are very different.

We need to examine the social and environmental costs of energy provision against the claims of economic growth, and not ignore the complexity of issues.

Key Issues are:

- * the need to balance social and environmental costs with economic costs;
- * the need to keep production static and increase efficiency and distribution, rather than wastefully increase production;
- * the lack of short, medium and long term vision.

Johan Basson

Department of Mineral and Energy Affairs

Debate in the energy sector is poorly developed partly due to the secrecy of the previous government.

Most domestic energy in SA is actually used in the form of biomass, that is wood, (218 Petajoules) rather than electricity (82 Petajoules).

82% of electricity is produced from coal.

South Africa has the 11th highest energy intensity in the world, largely because of the low cost of electricity. 15% of the economy goes into energy. A low cost can increase use and make for a higher impact on the economy.

On the energy and environment side, there are no real emission standards (air pollution), no ambient standards and no research co-ordination body. This makes it pretty much a free for all in terms of environmental impacts.

Electricity generation makes up 32% of greenhouse gas emissions in South Africa. There is, however, no proven crop damage in the Eastern Transvaal Highveld as a result of the coal burning stations, no proven water acidification and no proven soil impact (although this is hard to quantify due to the impact of farming activities themselves). Present carbon dioxide (CO₂) emission of 300 million tonnes per year are expected to peak at 850 million tons per year in 2020 and drop to 800 on a long term stabilization.

RDP related energy initiatives:

- * Biomass: Programmes are linked to rural development pilot projects presently under way at a total cost of R40 million per annum.
- * Low smoke urban fuels: Three fuels are being tested. At present emissions from domestic energy use in urban areas amounts to 3 Mt/yr.
- * Electricity: The National Electrification Forum has set a target to electrify 500 000 homes a year at an estimated R1 500 million a year. This is not economic.
- * Buildings: Thermal efficiency is integral to total energy costs and needs to be part of housing policies. Design guides are being developed and demonstration projects are running.
- * Remote Areas Power Supply: RAPS provide non-grid electricity to areas beyond the reach of the power lines. The programme needs a credit fund of R75 million.
- * Efficiency: Achieving energy efficiency requires a range of strategies: education and advice, energy efficient appliances, and appropriate tariffs and incentives. This area needs more work.
- * Taxis: There is much work at present investigating converting taxis to diesel. Subsidies have been requested to facilitate this.
- * Liquid Petroleum Gasses and Paraffin are undergoing continual research.

It is our view that no new electricity capacity should be installed before efficiency is explored and addressed. At present, policy documents look at issues and options, but not at choices. A debate process is needed and should be facilitated by a White Paper in mid 1995.

The urban and rural poor

Maria van Gass and Cecile Thom
Women and Energy Group

The urban poor use the urban environment as a resource base. They are a self-help community operating largely outside the cash economy. They have links to both the formal and informal economies.

50% of South Africans live below the Minimum Living Level (MLL). Formal energy policy is designed to perform in a cash economy system and fails to penetrate below the MLL. This raises the need to understand social structures and household dynamics.

The formal economy is peripheral to the culture of poverty in South Africa at present. Development strategies based in the formal economy and which require repayment are inappropriate to the poor. There is also the danger of destabilising existing survival strategies used by the poor. Even research fails here. The present electrification strategy is flawed if the poor get poorer, as it seems likely they will.

Fuel use patterns in houses are informed by sex and power relations, as are health impacts. Users should be the focus of strategies and need empowerment. There is a need to bridge the gap in planning between the supplier and the consumer, something which could be done through creative partnerships.

In relation to the rural poor, the Mission on Environmental Policy identifies the lack of access to clean, convenient and environmentally friendly energy as the key problem. But the real problem is lack of access as such. How can this be addressed?

The Mission document is superficial because it fails to really look at problems. We need to ask what are the real requirements and from this what are the appropriate strategies to address them.

For example, social forestry is good but the benefits are produced only in the long term. Moreover, if there is a cash cost imposed, the benefits may not reach poor people at all. It is important to realise there are two economies operating: subsistence and cash.

Electricity and ESKOM's environmental impact

Rufus Maruma
ESKOM

There is a difference between electricity generation and electricity as a product. Production is dirty, but electricity itself is clean.

ESKOM pledges to be accountable, to involve communities and to improve environmental performance. It needs to identify where its impact

lies; whether in generation, transmission, or consumption.

ESKOM is the fifth largest energy utility in the world. It provides the second cheapest energy in the world after New Zealand. It is a major contributor to CO₂ emissions which are estimated at 8 tonnes per person per year.

There is a need for legislation on emissions and for the development of a set of standards. However, I would advise against retrofitting flue gas desulphurization to existing power stations. The priority should be to concentrate on electrification so as to reduce particulate and SO₂ emissions in the townships.

Sulphur dioxide (SO₂) and smoke emissions have decreased in the townships by 1.5 % a year over the last 20 years. SO₂ in the Eastern Transvaal Highveld has been reduced over the last 10 years.

In terms of its broader plans, ESKOM intends to extend the grid as far as Uganda. In Namibia there is the possibility of using power generated from the Eupapa Falls. It is, however, very difficult to do Environmental Impact Assessments in the SADC countries because there is no standard legislation.

ESKOM is producing reports which are open, honest, green, and attempt to avoid creating unrealistic expectations.

Energy efficiency

Steve Thorne

Energy Development and Research Centre

There are several points on which I disagree with the previous speaker. The priority, for me, is to develop energy efficiency, particularly at the domestic level. This is an issue of affordability both to the users and to the economy.

South Africa is moving from a mindset of apartheid self-sufficiency to a system of equity, economic competitiveness, and environmental sustainability. This means redirecting resources. Moss gas, for example, has cost R11 billion. That is what it would have cost to electrify 90% of households. Similarly, energy efficiency is about redirecting resources and it would reduce many problems associated with energy.

It must be remembered that electricity is not always the most efficient source of energy if the real production costs are taken into account. In spite of this South Africa does not have an energy policy. It has an electrification strategy which runs the risk of marginalizing up to 50% of the population and, simultaneously, of bankrupting the country.

To use electricity, people need electrical appliances and they need cash to purchase them. They also need the cash to pay for the running costs of their new appliances. There is a danger that

energy inefficient appliances will be dumped on the country at low purchase prices, but at high use prices.

In responding to issues of this sort, we need to explore the possibility of partnerships. For example, the National Union of Metalworkers (NUMSA) is investigating the possibility of re-tooling local factories for the production of energy efficient appliances. Similarly, enhancing the thermal efficiency of houses offers substantial labour opportunities in retrofitting the existing housing stock with insulation.

Finally, it must never be forgotten how large the electricity industry is worldwide. It is estimated to be worth some 800 billion US\$. That's a large vested interest.

Before the commission opened to discussion, Duard Barnard of the Solar Energy Society of South Africa presented a report on the potential of solar energy. There is a very high insolation rate, over 6kwh/m²/day, in much of the country and a wide range of solar solutions to energy needs. The multiplier effect of moving to a job creation strategy based around a solar economy is enormous. Simply insulating houses could create 1,5 million jobs.

Discussion

Delegates raised concerns over the accuracy of the figures presented by ESKOM, particularly those claiming declining sulphur emissions in townships and from the Eastern Transvaal power stations. Maruma had not been able to stay after his presentation and so could not answer these concerns.

Delegates supported the notion of a mix of energy technologies, but the real question is how to do this. Government could be lobbied to introduce alternative energy sources in public buildings as was done in Botswana. The benefit of State expenditure must be maximized, and this entails an holistic approach including aspects such as efficient land use planning.

It was felt that the real pressures for this sort of initiative would only come if there is a real comparison of the costs of various forms of energy production. This implies that the true costs, including social and environmental, must be worked into the selling price.

Delegates were concerned that policy should focus on real needs and identify the real problems. It is important to avoid an ad hoc approach.

Delegates agreed to the following reworking of the points for discussion in the conference Briefing Papers.

Conservation is the cheapest, most efficient and environmentally friendly energy strategy. Energy conservation should be built in to the implementation of all RDP programmes. Existing infrastructure should be examined for energy savings. All conservation options should consider the cost of supply and minimize the use of non-renewable resources.

Active support should be given to cost effective solar

water heating, energy efficient appliances (whether electrical or other), and thermally efficient buildings at time of access. This may also apply to retrofitting. Appliance labelling should be required.

There should be transparency in pricing structures. Pricing and tax policies should support energy conservation. Environmental costs should be internalized in the pricing structure. Where appropriate, subsidization of energy costs should be equitably and transparently applied.

Policy should aim to reduce the reliance on coal fired generators and clean up remaining production. The present nuclear generation capacity should not be extended, and the total costs of nuclear power generation should be investigated with a view to eliminating such generation at the earliest opportunity. Policy should also provide a balanced approach towards diverse sources of energy, and should make information available on choices. Sound financial quantification of the cost structure of energy provision, including environmental and social costs, is needed.

Equity in terms of environmental justice demands that energy policy should emphasize diversity and decentralization of energy production. Local, and locally controlled, energy production should be supported. Local energy producers should be encouraged to supply the national grid subject to sufficient information to make cost effective decisions. The national grid shall be considered a national asset.

Resources presently available for nuclear and synfuel research should be redirected to support small scale renewable energy use through implementation and research funding, in particular, implementation which focuses on the consumer. Attention should be given to education and end user participation. The energy potential of waste and sewage should be examined as a matter of urgency, as should alternative renewable energy sources such as wind, water, solar, biomass, and social forestry.

An holistic approach to energy sources should be adopted so that low smoke coal and wood fuel programmes are supported, and the restructuring of gas and paraffin prices is facilitated. Similarly an holistic programme is needed to address the health hazards related to coal and green wood burning, with urgent attention to the particular problems of rural women and their needs.

The capacity of local industry to supply sustainable energy systems should be researched and policy should support sustainable development of that capacity. Marketing channels, customer services, and appropriate pricing issues should be addressed.

The impending introduction of unleaded petrol was also discussed. It was argued that since catalytic converters are not being made mandatory, existing problems will be exacerbated.

A Wish List

Delegates responded to the question:

"How would you spend limited funds most wisely on energy in an environmentally sensitive manner?"

1. Encourage alternative technologies through subsidies.
2. Education to:
 - change attitudes;
 - to inform about options and alternatives;
 - to embrace environmental concerns.
 It must be:
 - in all languages;
 - vigorous, and designed for mass dissemination;
 - in schools, factories, shops and public spaces;
 - in urban and rural areas;
 - formal and informal - such as workshops;
 - for all, bottom up and top down.
3. Identify community needs in a participative and consultative manner.
4. Do a cost analysis of different energy options by quantifying all costs (including social and environmental) and choose the cheapest option/best alternatives.
5. Consider projects and criteria on a holistic basis.
6. Advertise the reasons and benefits of various energy choices.
7. Research ways and methods of involving people in production and replenishment of renewable energy sources.
8. Create an energy and environment unit to:
 - provide advice, communication, and education;
 - develop low smoke fuel and other helpful technologies;
 - investigate passive design and upgrading of buildings.
9. Create a rural energy-environment implementation unit to work with local communities on issues like biomass use, passive design of buildings, photovoltaic systems, and education and communication.
10. Create an agency to promote commercial and transport energy efficiency in order to reduce the energy use and environmental impact of commercial activity through communication and education, an energy management support service, and demonstration projects, among others, and to act as a catalyst.
11. Clean up waste dumps.
12. Fund research into energy efficiency, low smoke coals, and safe liquid fuels.
13. Identify social and ecological problems, and identify technologies and solutions to deal with these.
14. Develop coherent strategies and partnerships.
15. Research and encourage the use of energy efficient appliances, particularly using renewable natural resources.
16. Supply electricity wherever possible and affordable.
17. Improve management programmes for woodlots and social forestry.
18. Improve distribution of wood and paraffin.
19. Support self-help groups
20. Form partnerships with the private sector.
21. Investigate possible symbiosis between end users and environment.
22. Build capacity for communities and users to make informed decisions.
23. Mobilize around energy efficient appliances.
24. Subsidize a predetermined amount of energy to all users, and then introduce a sliding scale of costs above this base level.
25. Improve the energy efficiency at the time of access to housing.
26. Improve access, through a hardware fixed cost subsidy, to efficient fuels and appliances.
27. Shut down the nuclear industry.
28. Increase extension teaching on least-cost options for households.
29. Improve the capacity of the Department of Mineral and Energy Affairs.
30. Put a ceiling (e.g. the current energy generation level) on energy generation and insist that large users institute energy conserving practices and systems. "Recycle" this energy to sectors which do not have adequate access to energy.

Recommendations

As people centred environmentalists with an energy focus we have been and continue to be activists, researchers and policy makers: our challenge now is to add implementation in terms of the RDP. Secondly, this delivery should be cross sectoral, that is through Integrated Resource Planning (IRP).

People's Participation

1. People need to identify their energy needs and priorities. At the moment people's choices are extremely limited. A deliberate effort is needed to bring people on board in energy decision making, something which hasn't yet been addressed.
2. People need to participate in their own education.
3. Partnerships between stakeholders in the use and supply of energy services need to be forged in order to get policy support of all participants in the energy chain.

Policy Principles

1. Affordable and environmentally sustainable:
We need a coherent environmentally informed policy which provides a range of different energy service options which avoid monopolies and are affordable to end-users and the economy.
2. Rational choices for energy services:
The end user should be able to make a rational choice of means to fulfil energy service requirements. Information with regard to different energy options and their impact on the environment need to be facilitated in a variety of languages and forms.
3. Access to energy - critical needs:
 - a. We need to identify critical issues in accessing energy and act from the basis of identified needs.
 - b. There is a need to build the awareness that 50% of the population lives below the MLL. This must inform policy and demands specific strategies to ensure energy service provision. Development of such strategies and institutions/structures must be a priority.
 - c. There is a need to build capacity to promote participatory energy planning, energy education and to implement energy end-use management.
4. Maximize benefits, minimize costs:
 - a. Maximization of benefit and minimisation of cost should guide state expenditure on energy services; i.e. least-cost energy planning.
 - b. Energy efficiency and effective use should be built into the implementation of all RDP and subsidiary projects.
 - c. Energy pricing policy, including subsidies, should be transparent and must necessarily internalize environmental and other social costs in order to be useful and meaningful.

Research and Monitoring:

The general theme must be a shifting of the emphasis from nuclear and synthetic fuel research to supporting the implementation of energy efficiency and renewables.

Research and monitoring needs:

- * End-users' needs and requirements must inform energy policy.
- * Identification of alternative structures and strategies to address the needs of the 50% who live below the MLL must be sought.
- * Paraffin and LPG pricing needs to be researched and possibly rationalised.
- * a monitoring programme must be introduced to examine:
 - emissions from generation;
 - petrol and petroleum use emissions;
 - product use emission;
 - direct burning of coal.
- * Air pollution and water contamination and solid waste need independent monitoring.

Implementation

Immediate:

- * The thermal performance of housing needs to be improved at the time it is built and attention must be given to retrofitting existing dwellings. This is a potentially vast job creation project.
- * Government needs to take the lead in using energy sources other than grid electricity in its buildings and meeting places. Government must seek out and use alternative forms of energy as an example to all.

Environmentalists need to:

- * Engage government and challenge them to work cross sectorally;
- * Arrange conferences and meetings between energy specialists and environmentalists, people involved in policy and other natural resource management and planning;
- * Take immediate steps to educate people e.g. paraffin posters in health clinics in the appropriate languages.
- * Make information available to the public on new technologies, e.g. solar water heaters and photovoltaics.
- * Develop channels for dealing with health problems related to energy uses. For example in rural areas greenwood burning causes respiratory disorders, and carrying wood causes back problems for women who carry the load.
- * Label appliances with relation to their energy use and durability i.e. life cycle.

Conclusion:

We need to identify the interaction and relationship between energy, the economy, the environment and people, and keep these in mind in all our work.

The time is right for a cross-sectoral meeting between different government departments and interest groups in civil society.

Cross sectoral opportunities:

Energy is an essential and invisible ingredient in all sectors of the economy and we need an holistic approach to energy efficient land use planning and urban form.

Industry needs to conserve energy and develop appropriate technologies. Agriculture should be small scale and low input. Public transport should be developed.

Two sectors provide examples:

- * Education provides both needs and opportunities. Energy education, like other environmental education, need not only be traditional, formal, written and prescribed. It can also be creative, informal and interactive; involving story telling, workshops, role play and an emphasis on local knowledge. Other aspects include involvement of various groupings and organisations in workshops, for example on global warming. In this regard an educative role could be played by organisations such as NGO's.
- * Housing offers the best opportunities for integrating energy and environmental policy involving cross sectors in housing and job creation. The question of housing is crucial in relation to the RDP at present, and it is critical that the country does not incur a huge and unpayable energy debt by opting for thermally inefficient designs for mass housing projects when there are cost effective alternatives available.

Closing address

Ben Turok
Gauteng MEC for the RDP

Two years ago I gave the closing address to the Earthlife Conference at which EJNF was born. The Briefing Papers to this conference demonstrate a major advance in the scope of your work in organising an environmental voice which includes women's, youth, rural, religious and environmental organisations, civics, unions and service NGOs.

From government's point of view, it is very important that the environmental sector should be organised because it is not possible to see every individual person or organisation. We need also to develop an organised relationship so that government can relate to concrete positions. You can initiate that by appointing a delegation to take the resolutions you have passed to government so they can be properly discussed. In respect of the Gauteng Provincial Government you should meet with us at the RDP office and with the MEC for the Environmental Affairs.

Government, and everyone in it, needs to be subject to ongoing criticism. Accession to government and to power has a corrupting effect. This is particularly the case since we have a Government of National Unity based on compromise. I do not mean just the sort of corruption that uses public office for private gain. People in government are subject to enormous pressures to compromise on values. People outside government must hold us to the values we espoused prior to the elections.

But in being critical, you should also be constructive. This government is open and that offers the possibility of a transition which moves towards the values you hold. In Gauteng, for example, we are drawing up an RDP White Paper and will welcome inputs from EJNF.

I want to speak on three issues in particular: Greening, economic growth, and participation.

The title to this conference is "Greening the RDP". The use of "Greening" indicates some dissatisfaction on your part with the RDP base document. It implies either that the environmental dimension is lacking in the RDP or that "Greening" should be the governing principle of the RDP.

People such as myself are driven by the need to deliver. That means that we tend to miss key issues such as gender and environment. So the statement that the environmental dimension is lacking may well have validity.

The alternative statement is more questionable. This government's primary responsibility is to deliver. If you want Greening to define the policy agenda then you must be able to show, quite specifically, that Green policies will deliver and how they will deliver. That case has not yet been made.

We want a convergence of all movements, including women and environment, around delivery. People are desperate for delivery. Failure to deliver will result in unthinkable consequences.

So the environmental movement must be positive in its criticisms. In Europe it is frequently about stopping things. Here it must be about starting things. And Greening must be based on our needs, not the concerns of the North. The question is, What does it mean to be Green in South Africa at this time?

The Briefing Papers to this conference says that the RDP conceives development in terms of economic growth.

I want to challenge that. The RDP is not an economic document. It is a socio-economic document and it is very comprehensive.

Economic growth is a matter of a calculation. It does not have content. If it is produced by increasing mining, increasing arms exports, increasing exploitation or increasing the role of transnationals in our economy then we must say no to that. We must say no when growth becomes an end in itself.

But growth can be achieved in different ways. Development has content and must produce growth, not as an end in itself but as an increment, an increase in societal resources.

The RDP is explicit on this point and gives it prominence as one of the Six Basic Principles of the RDP:

"The RDP is based on reconstruction and development being parts of an integrated process. This is in contrast to a commonly held view that growth and development, or growth and redistribution are processes that contradict each other. Growth - the measurable increase in the output of the modern industrial economy - is commonly seen as the priority that must precede development. Development is portrayed as a marginal effort of redistribution to areas of urban and rural poverty. In this view, development is a deduction from growth. The RDP breaks decisively with this approach. If growth is defined as an increase in output, then it is ... a basic goal. However, where that growth occurs, how sustainable it is, how it is distributed, the degree to which it contributes to building long-term productive capacity and human resource development, and what impact it has on the environment, are the crucial questions ... The RDP integrates growth, development, reconstruction and redistribution into a unified programme." [1.3.6]

EJNF must show it is concerned with increasing the quantum of resources including jobs. Our approach is based on increasing productive capacity by integrating environment and development rather than placing them in contradiction.

Participation and people centred development are central concepts in the RDP but they must be unpacked.

Your resolutions call for participation but they do not go far enough. Participation is not just about consultation or the inclusion of people in decision making, nor is it just about job creation. It includes those things but its essence is mobilising people to become actors in the development process. That is the quantum leap which has to be made and it is something strange for communities as well as for government.

Within six months of independence in Tanzania, the whole population was mobilised for development. That has not happened here. Communities expect to be consulted, they expect to be involved in decisions, but they do not become active in development. In Gauteng we are now talking about people's brigades to provide a vehicle for people's action.

The RDP is not about charity. Delivery to a passive people is not RDP. If the action is not there, it is not RDP.

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