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CAN ICT EFFECTIVELY BRIDGE THE INFORMATION AND KNOWLEDGE GAP ACROSS GEOGRAPHICAL AND SOCIAL BOUNDARIES

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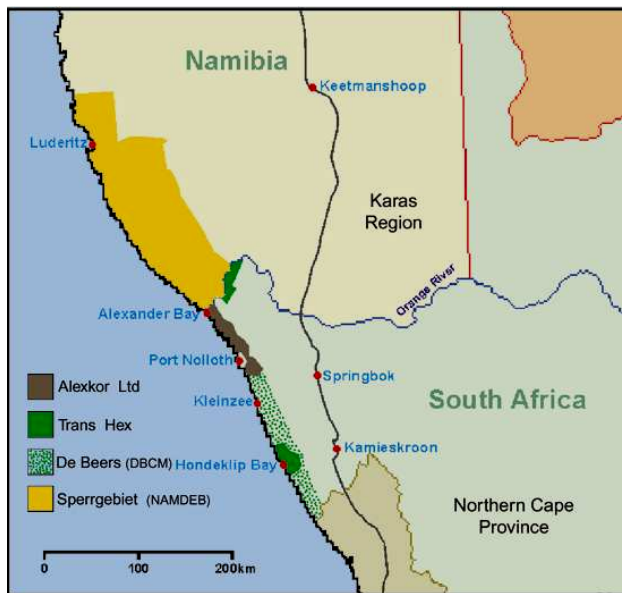
ABSTRACT: The coastal areas flanked by the Benguela Current Large Marine Ecosystem (BCLME) along the west side of Southern Africa are in a rapid state of transition. Changes in land ownership, political dispensation and administrative systems and entities, as well as dwindling diamond reserves are bound to heavily influence patterns of livelihood and resource utilisation. Grazing lands, living marine resources, biodiversity and water are particularly important resources along the semi-arid and arid western side of Southern Africa. Not only is there tremendous pressure on the trans-boundary water resources such as the Orange River that forms the boundary between Namibia and South Africa, but the rich Benguela Current also holds the promise of a better future for a region where debilitating poverty is endemic and worsening. Planning is key to a better and more secure life for the people of the region and the survival of its unique biological and cultural heritage. Access to information is therefore critical, both to inform mandatory integrated development planning processes currently underway, and to lead the impoverished communities to new possibilities of developing alternative livelihoods to the downscaling mining industry. Information sharing, or the lack there-of, has time and again been identified as the single major obstacle to sustainable development in the region. Thus a web-based Distance Learning and Information Sharing Tool (DLIST), accessible at www.dlist.org was developed with funding from the Global Environment Facility (GEF) and assistance from the World Bank and IW:Learn. After two years a number of trends have become apparent that point to the ability of DLIST to bridge the knowledge gap between the “*knows*” and the “*know nots*”, who happen to be closely correlated to the “*have’s*” and the “*have nots*”. Results from the approach taken by DLIST ought to be useful to other initiatives that aim to take on the challenge of bridging the knowledge divide by creating a common “pool” of knowledge” for the purposes of integrated development planning that is equitable and sustainable.

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1 Introduction

The coastal areas flanked by the Benguela Current Large Marine Ecosystem (BCLME) along the west side of Southern Africa are in a rapid state of transition. Dramatic changes in the political landscape² have led to a decentralized approach to governance in the region and the imperative to increase access to lucrative marine resources to the broader population as well as “open up” coastal areas that were previously off limits to local communities and broader society. Until now, access to over 90% of the coastline in the Northern Cape and Southern Namibia has been severely restricted because of diamond mining (Figure 1). Now land-based diamond deposits in the ancient coastal marine terraces are becoming depleted and the major mining houses have started to scale down their activities. Vast tracks of coastal areas will soon start to become available again for land uses other than mining. On the negative side, downscaling of the mining industry, by far the biggest employer in the region is having a pronounced effect on the social and economic profile of the region. The loss of a job can affect an entire family or extended family, and unemployment is rampant and threatening to spiral out of control.

Figure 1



² South Africa, Namibia and Angola all suffered from long-lasting political conflict and suppression linked directly or indirectly to colonialism that spanned several centuries and culminated in the Apartheid era. New political dispensations in those countries heralded in an era that demand renewed access to coastal areas were resource distribution and access had been heavily influenced by discriminatory practises. Scarcely a decade ago colonialism ended in Namibia, followed by South Africa a few years later, bringing peace and relative stability to the region. With respect to stability Angola was the last to follow with the recent end to the armed conflict between government forces and UNITA rebels that lasted almost three centuries.

Figure 1 The transfrontier region between Namibia and South Africa, separated by the Orange River, is dominated by mining houses controlling vast areas in the coastal areas and significant tracts of land along the banks of the river.

Fortunately there are increasing attempts to develop alternative livelihood options. Already activities in the region include livestock farming, agriculture, fishing and the harvesting of living marine resources, mariculture, tourism and conservation. All of them are taking place at levels far too low to counter the negative effects of mining downscaling, but they are likely to be stepped up in the coming post-mining era. To optimize the benefits that can come from the proper development of alternative resources, pro-active planning has become essential. Information lies at the heart of planning. Information sharing has been identified as the biggest obstacle standing in the way of collective planning³, and now needs to involve all key role players and civil society in general. The question arises whether ICT can meet the challenge of information sharing and knowledge management over a vast area that is marked by intense societal stratification and a culture of ‘non-sharing of information’.

2 A Culture of ‘Non-Sharing of Information’

For democracy to function well people have to be reasonably informed in terms of events and processes that can influence their lives. This requires a reasonable level of access to information and the sharing of relevant information between key players and with civil society. Like many other parts of the developing world, the transfrontier region between South Africa and Namibia falls far short of this mark. In Apartheid years information sharing was strongly influenced by the realities of a racially divided society where privilege, access and quality schooling largely belonged to the ‘white’ sector of society. The mining houses further divided society into masters and workers, the former being ‘in the know’ whereas the workers, having their origin in the local so-called ‘coloured’ communities and the ‘black’ migrant labour system, became thoroughly marginalized over a number of decades. Older people from the ranks of the community who worked on the mines recall how even learning to speak English was discouraged on the old State Alluvial Diggings that today is known as Alexkor Ltd⁴. Unfortunately, the culture of “non-sharing of information” has persisted to this day, well into the post-94 democratic elections that ushered in the “New South Africa”. This is not surprising as information in the mining-dominated region still brings an advantage that can best be described as the “early bird that

³ From over 90 public and interest group meetings held throughout the area as part of the Integrated Development Planning (IDP) process conducted by the Richtersveld Transitional Council and the Richtersveld Municipality (see Richtersveld Transitional Council, 2000; Richtersveld Municipality, 2002), it has become abundantly clear that people know very little about their region, even large-scale initiatives that have the potential to drastically influence their lives, let alone emerging opportunities that they can take advantage of.

⁴ Alexkor Ltd is a large government-owned mining house that controls the coastal area from the mouth of the Orange River to South of Port Nolloth. It was established as the old ‘State Alluvial Diggings’ when diamonds were discovered in 1927 near Port Nolloth. Shortly afterwards the local Nama-speaking people were displaced from their ancestral grazing lands to create work for ‘Poor Whites’ stranded by the Great Depression. The region was declared off limits except those who worked on the mines.

knows most, catches the worm”. The “privatization of information” is a phenomenon that remains difficult to combat as it occurs amongst people affiliated with the old regime as well as certain comrades that form part of the new order.

3 A Myriad of Plans – but whose plans are they really?

Information sharing, or the lack there-of continues to hamper planning. This is best understood by examining some of the many planning and development initiatives that are happening simultaneously in the transfrontier region. These planning initiatives often have their origins in different and sometimes geographically distant places, which complicates information sharing even further. These initiatives include, amongst others, a Transfrontier Park (TFP), a larger Transfrontier Conservation Area (TFCA)⁵, a Spatial Development Initiative (SDI)⁶, an Integrated Development Planning (IDP) process, sector plans, protected area management plans⁷, and Environmental Management Programme Reports (EMPRs) and other types of strategic plans for the mining houses⁸. All of these planning initiatives, amongst others in the region, claim to want to play an important role in bettering the lives of the people of the region. Yet, with the exception of the Transfrontier Park (TFP) and the Integrated Development Planning (IDP) process, the inhabitants of the region by and large have little or no knowledge of them beyond knowing that they exist, and then only in the case of a handful of people.

4 The Integrated Development Planning (ICP) Process

AT THIS POINT IT MAY BE USEFUL TO BRIEFLY DWELL ON THE SIGNIFICANCE OF THE INTEGRATED DEVELOPMENT PLANNING (IDP) PROCESS, OR THE “IDP” AS IT IS POPULARLY KNOWN. WITH THE CHANGE OF GOVERNMENT IN 1994, INCREASING EMPHASIS WAS PLACED ON CREATING DEVELOPMENT OPPORTUNITIES FOR THE POOR, AND A RENEWED EMPHASIS WAS PLACED ON THE RURAL AREAS, MOST OF THEM BEING ECONOMICALLY DEPRESSED AND MARKED BY HIGHLY SKEWED LAND OWNERSHIP, OFTEN ECONOMICALLY TRYING CIRCUMSTANCES AND FEW LIVELIHOOD OPTIONS FOR HISTORICALLY DISADVANTAGED INDIVIDUALS WHO HAVE BEEN TRADITIONALLY AT THE BOTTOM OF THE FOOD

⁵ "Transfrontier Conservation Area" means relatively large areas straddling frontiers between two or more countries and cover large-scale natural systems encompassing one or more protected area. See: *Draft Memorandum of Understanding on the Establishment of the Richtersveld/Ai-Ais Transfrontier Conservation Area* (DEA&T/Peace Parks Foundation, June 2001).

⁶ Spatial Development Initiatives (SDIs) are large-scale development planning and implementation initiatives with their origins in national government’s Department of Trade and Industry and the Development Bank of South Africa. They aim to promote investment-led growth in underdeveloped regions of the country that have potential for economic development (see: www.africansdi.com).

⁷ Conservation planning is driven by different agencies, for instance the South African National Parks (SANParks), the DEA&T, the Northern Cape Nature Conservation Services (NCNCS) at provincial government level, NGOs such as Peace Parks Foundation (PPF) and Community-based Organizations (CBOs).

⁸ For the transfrontier region there exist mariculture and fishing sector plans, park management plans, a development plan for the Orange River Mouth Ramsar site, now being referred to as the Orange River Mouth Transfrontier Conservation Area (ORM TFCA), obligatory EMPRs (outlining decommissioning and rehabilitation plans) and strategic plans for the mining houses, but the public is generally unaware of these plans. Affected parties tend to have little or insight into them, often for no other reason that they were not involved to the extent that they are supposed to be, or simply because it may be very difficult to get hold of such plans (visit: www.dlist.org, and see discussion forums).

CHAIN. TWO RECENT REFORM PROCESSES AIM TO ADDRESS THIS STATE OF AFFAIRS. THE FIRST WAS THE DEMARCATION OF SOUTH AFRICA INTO MUNICIPALITIES THAT NO LONGER CONSIST OF SINGLE TOWNS ONLY BUT IN FACT ARE SMALL REGIONS CONTAINING ONE OR MORE CITIES AND TOWNS AS WELL AS OFTEN VAST TRACTS OF RURAL AREAS, MUCH OF IT ECONOMICALLY DEPRESSED. THE REASON IS THAT UNDER THE PREVIOUS REGIME ACCESS TO, AND DISTRIBUTION OF RESOURCES BECAME UNEQUALLY DISTRIBUTED AND TENDED TO BE IN THE HANDS OF FEW AND ENDED UP CONCENTRATED MOSTLY IN TOWNS AND CITIES. THE NEW DEMARCATION ENSURED THAT POOR AREAS AND WEALTHY NODES COULD BE TREATED AS SINGLE MUNICIPAL PLANNING UNITS.

The second reform process was the installation of the local government system that came into being on December 5, 2000 with countrywide local government elections. Municipal areas are divided into wards that elect councilors to represent the inhabitants in local government. Local government under the Municipal Systems Act (2000) and the Municipal Structures Act (1998) has a strong role to play in bringing about equitable and sustainable development. The main tool in achieving integrated and sustainable development is the mandatory Integrated Development Planning (IDP) process. Each local government had to embark on a continuing and participatory planning process in which all role players have the opportunity to collectively work out a Vision and development priorities for the municipal area.

The power of the IDP to incorporate the aspirations of people and reconcile them with the natural advantages and other realities of the region has become well appreciated. Isaacs and Mohamed (2000) recently stated: *“The participatory, community-driven integrated development planning (IDP) process that has just been initiated in the Richtersveld through a series of community meetings and workshops provides an ideal opportunity to set local development objectives, identify priority areas and develop an integrated vision for the Richtersveld. It is therefore critical that conservation plans be integrated into this process. This could be a unique opportunity to ensure that the national park, that remains an important asset for the Richtersveld, can be linked to proposed community conservation initiatives, such as a community ‘conservancy’ that will link the park to a provincial conservation area. Limited opportunities for the expansion of stock farming and the de-commissioning of the mines in the future point to the need to investigate other land use options”*.

The IDP is not only an appropriate tool for local and regional planning. It also provides the opportunity for national, provincial and local planning to be reconciled and harmonised with the ground. As the overseers of the planning process and eventually implementation itself, local government remains closely tied to the ground as the first tier of government that is in constant touch with the electorate. It is at this level where national policies and initiatives can be reconciled with the aspirations of the people. The Interim IDP for the Richtersveld communal area has already been used most successfully in the setting of priorities and the identification of projects and programmes. They include poverty alleviation projects funded through the DEA&T (EcoAfrica (ed.) 2001), a NORAD programme funded through the DEA&T and a Global Environment Facility (GEF) PDF Block A Award for Medium-Sized Project (MSP) proposed by local government.

The IDP process first started with the Richtersveld Transitional Council, before the communal lands under this council was amalgamated with other areas and town into a large Richtersveld Municipality in December 2000. The amalgamated Richtersveld Municipality was one of the first municipalities to hand in an IDP in 2001, and has now its second version completed in early 2003. What has become evident during this expanded IDP process is that information sharing mechanisms must be put in place in order to find information and keep it updated, organised and

accessible. Such information should include all planning initiatives in the area that can inform the IDP so it can achieve its primary objectives of improved service delivery and an equitable and sustainable future for the region's inhabitants.

5 Obstacles to Participatory Planning

In spite of the laws promoting planning, integrated development planning in the transfrontier region has not been easy for various reasons:

- Participation in planning is a new experience for most people. Previously in South Africa, planning was imposed in a “top down” manner on the majority of people. Although recent policies and laws make integrated development planning by local government mandatory, certain difficulties are experienced in its implementation and lessons are still being learned (Baumgart and Turner, 2002). Although strongly rooted in the law, not all role players understand the significance and strengths associated with the Integrated Development Planning (IDP) process.
- Participatory planning is difficult to achieve when people are not properly informed. Reliable information remains difficult to track down. Information flow remains largely restricted to the educated and/or privileged tiers of society. Many people tend to ‘privatise’ information that they perceive as valuable currency. Access to information and its poor flow through society can therefore be considered a major constraint in development planning. Planning by the mining industry is often considered neither transparent nor inclusive of affected parties.
- Many different role players are involved in initiatives in the transfrontier area. Convergence in planning is hampered by the lack of a formal overarching integrated planning framework, and because the various initiatives tend to have their origins in geographically distant places and often far away from the area. The result is many planning initiatives that have poor communication with one another.

The question arises as to the role that knowledge management (KM) and information sharing can play in overcoming these obstacles to integrated development planning. Specifically, can KM improve the synchrony, synergy and harmonization of the different integrated conservation and development initiatives by facilitating information sharing and making relevant information accessible? And what role can ICT play in KM over such a geographically spread out area?

6 The Distance Learning Information Sharing Tool (DLIST)

Following a meeting of the Northern Cape Coastal Working Group in late 1998, the World Bank facilitated discussions with a range of regional stakeholders, in order to address the problem of information sharing. At a workshop held on February 5th 1999 that included representatives of FAMDA, Alexkor Ltd, local government, provincial government, communities, other stakeholders and Namibians from the transfrontier region, participants welcomed the possibility of an information sharing and knowledge management mechanism. Soon after, the development of the Distance Learning Information Sharing Tool (DLIST) for the region started in earnest.

DLIST is essentially a web-based platform whose organization and function can best be explained through a visit to the site www.dlist.org. DLIST have two main components: *distance learning* and *information sharing*. The former is organized as a course with modules that cover a

range of topics⁹, including living marine resources, coastal management, integrated development planning, environmental assessment and governance. The *information sharing* part focuses on various means of gathering information, organizing it, and making it more accessible. It consists of a library, a Message Board, Discussions Forums and Kiosks established by a range of partners. These components are available to registered users¹⁰ to post items and start discussion threads.

In order to facilitate information sharing and knowledge management, DLIST has the following broad objectives:

- To foster networking opportunities between coastal role players involved in sustainable development, in order to establish functional information and knowledge sharing ‘communities of practice’;
- To optimize planning and implementation of effective and appropriate integrated coastal zone management solutions for the region, through collaborative problem solving and planning;
- To develop an internet-mediated learning environment that assists in developing a strategic development plan for the region; and
- To create an ongoing and self-sustaining learning and information sharing through the posting of events, useful information and to promote open discussion between people.

The information sharing part of DLIST can thus be described as a “pool of knowledge” that is constantly growing. Information constantly flows into the pool from a range of sources, or “information communities” in KM language, that are linked to the “pool of knowledge” in a manner that they can also retrieve useful information on an as-needed basis. Every effort is also made to link “information communities” up with one another directly. The DLIST “pool of knowledge” can be presented as a circle, representing the “pool”, with two-way arrows leading into it from “knowledge communities” or “informants”. The flow of information should be a continuous process considering the dynamic nature of the region. Information content should be steered largely by the needs of the users. For more information on how the “pool of knowledge”

⁹ Academics, planners, environmental practitioners and local experts contributed to the topics. A high premium was placed on local expertise. For instance the Mayor of the Richtersveld Municipality, Mr Dan Singh, contributed significantly to the section on governance.

¹⁰ Anyone can become a registered user by following the instructions that start on the home page. Registered users are automatically alerted when items are posted on DLIST. Registered users include a wide spectrum of people and they contribute to information sharing by posting all sorts of information as well as sharing their opinions in the Discussion Forums.

functions in terms of highlighting “natural advantages” of the region and soliciting information from different parties and again making it available to all, please see Mabudafhasi (2001, 2002), or visit www.dlist.org.

7 How well is DLIST doing?

Evaluating the effect of DLIST on the region is not an easy task. There are two parts to the assessment, namely deductions from the available web statistics that are necessarily quantitative in nature and give measures of the “connectivity levels” of DLIST through time, and the second part will be qualitative and anecdotal rather than quantitative in nature. Finally such information can be used to speculate on the extent by which DLIST is influencing the region in terms of achieving more sustainable outcomes through better planning as the result of making knowledge available and promoting better access to, and sharing of information. For a more complete assessment of DLIST it will obviously be necessary to solicit opinion from the full set of DLIST contributors and participants in a systematic manner, as it is they who really form DLIST and contribute or draw from its common “pool of knowledge”.

7.1 Web Statistics

NUMBER OF HITS

THE FIRST STEP IN INFORMATION SHARING IS TO FIND THE INFORMATION. THE FIRST MEASURE OF THIS IS THE TOTAL NUMBER OF HITS THAT THE SITE HAS ENJOYED SINCE ITS INCEPTION, NAMELY 271, 911. THESE HITS WERE MADE BY A TOTAL OF 143 375 DIFFERENT VISITORS. SUCH STATISTICS ARE NOT ESPECIALLY USEFUL OTHER THAN TO INDICATE THAT THE SITE IS BEING REACHED BY A LARGE NUMBER OF PEOPLE.

NUMBER OF VISITORS

THE NUMBER OF VISITORS PER MONTH HAS BEEN INCREASING FROM OVER 300 IN JANUARY 2002 TO MORE THAN 3500, MORE THAN TEN TIMES AS MANY, IN MAY 2003. THE INCREASE APPEARS TO BE ALMOST EXPONENTIAL AND THERE IS NO SIGN OF SLOWING DOWN.

Figure 2

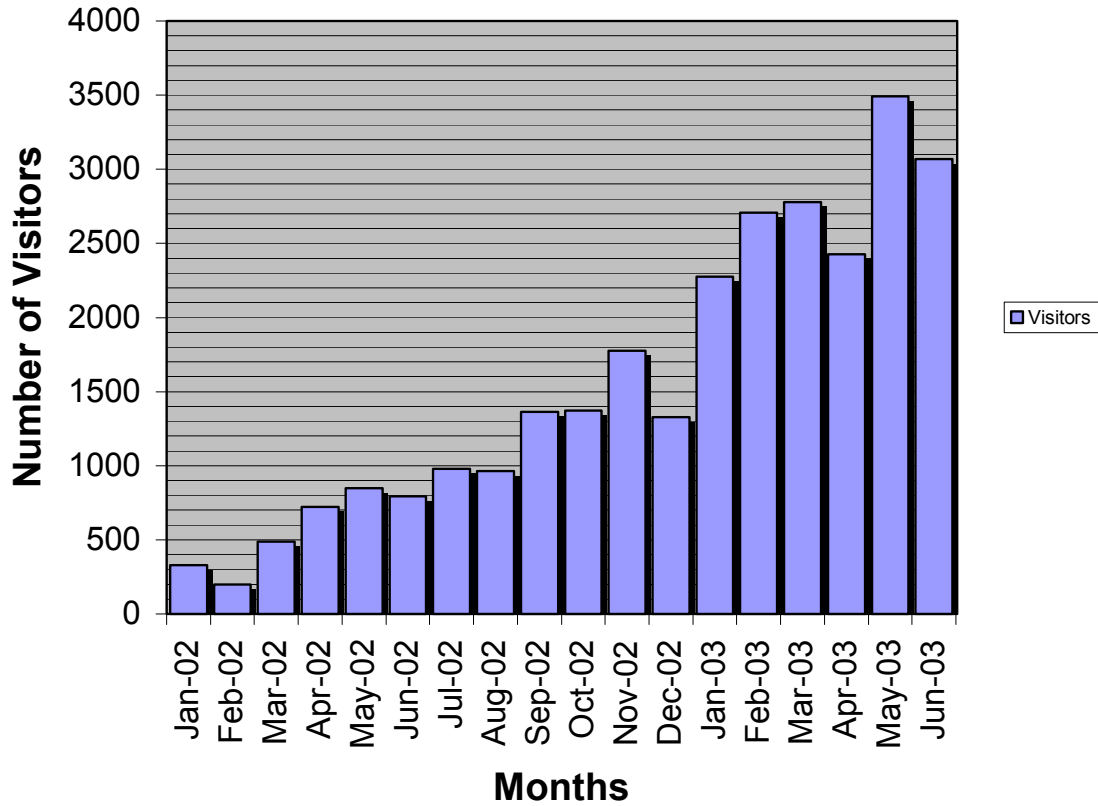


FIGURE 2 SHOWS THE NUMBER OF VISITORS TO THE SITE FROM WHEN DLIST WENT LIVE IN JANUARY 2003 TO JUNE 2003. THE APPARENT DECLINE IN JUNE IS BECAUSE THE STATISTICS WERE DRAWN ON JUNE 23.

TIME SPENT ON THE SITE

NOT SURPRISINGLY, GIVEN THE INCREASE IN VISITORS OVER TIME, THE ACTUAL TIME SPENT VIEWING DLIST BY VISITORS HAS INCREASED OVER TIME FROM 5000 MINUTES IN JANUARY 2002 TO AT LEAST 21 000 MINUTES (OR 350 HOURS) IN JUNE 2003. THE TOTAL NUMBER OF MINUTES THAT DLIST WAS VIEWED SINCE THE SITE WENT LIVE COMES TO 143 375 MINUTES. MORE INTERESTING IS THAT 25 930 VISITOR SESSIONS HAD AN AVERAGE LENGTH OF 22 MINUTES, MEANING THAT A LARGE NUMBER OF PEOPLE SPEND CONSIDERABLE TIME ON THE SITE.

Figure 3

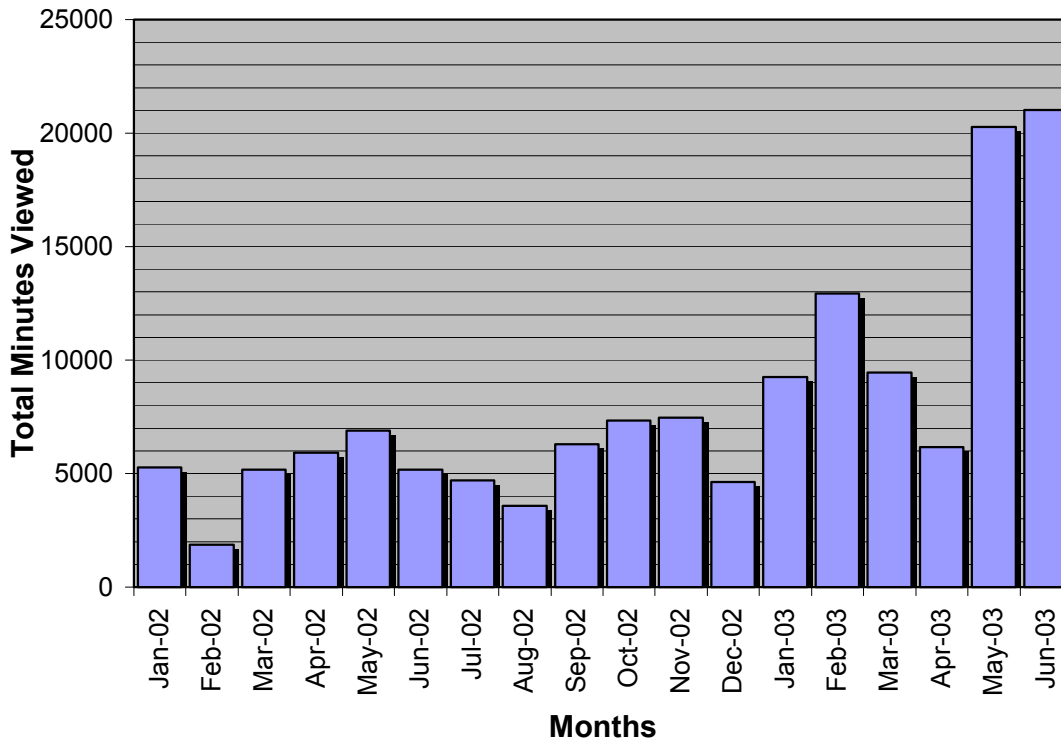


FIGURE 3 SHOWS THE TOTAL NUMBER OF MINUTES THAT DLIST HAS BEEN VIEWED EVERY MONTH FROM JANUARY 2003 TO JUNE 2003.

Regular Visitors and Popular Entry Points

PERHAPS THE MOST SIGNIFICANT ASPECT OF VISITOR STATISTICS IS THAT 332 VISITORS HAVE VISITED THE SITE MORE THAN TEN TIMES. THIS MEANS THERE IS A FAIRLY LARGE GROUP OF PEOPLE THAT VISIT THE SITE REGULARLY. BEAR IN MIND THAT THIS IS A SPARSELY POPULATED REGION AND THAT THE TOTAL NUMBER OF PLANNERS AND DECISION MAKERS FOR THE REGION, AT LEAST THE SOUTH AFRICAN AND NAMIBIAN PART, CAN SCARCELY BE IN THE HUNDREDS. EQUALLY INTERESTING ARE THE STATISTICS SHOWING THAT THE MOST POPULAR ENTRY POINT INTO THE DLIST SITE IS NOT THE HOMEPAGE AS ONE WOULD EXPECT, BUT IN FACT THE DISCUSSION THREADS. THIS MEANS MANY VISITORS GO DIRECTLY TO THE DISCUSSION THREADS WHICH CAN BE INTERPRETED BOTH AS A RESULT OF THE AUTOMATIC MESSAGES SENT TO REGISTERED USERS WHEN A DISCUSSION IS POSTED BUT ALSO BECAUSE PEOPLE ARE CLEARLY INTERESTED IN THE OPINIONS OF OTHERS.

The Users Profile

One problem that has often been identified when it comes to information sharing is that information moves in stratified layers or in sectors, which entrenches monopoly of information by privileged groups or classes. However, in the case of DLIST an examination of the discussion forum contributors and the registered users profile shows that people from all types of groups access and contribute to DLIST.

Figure 4

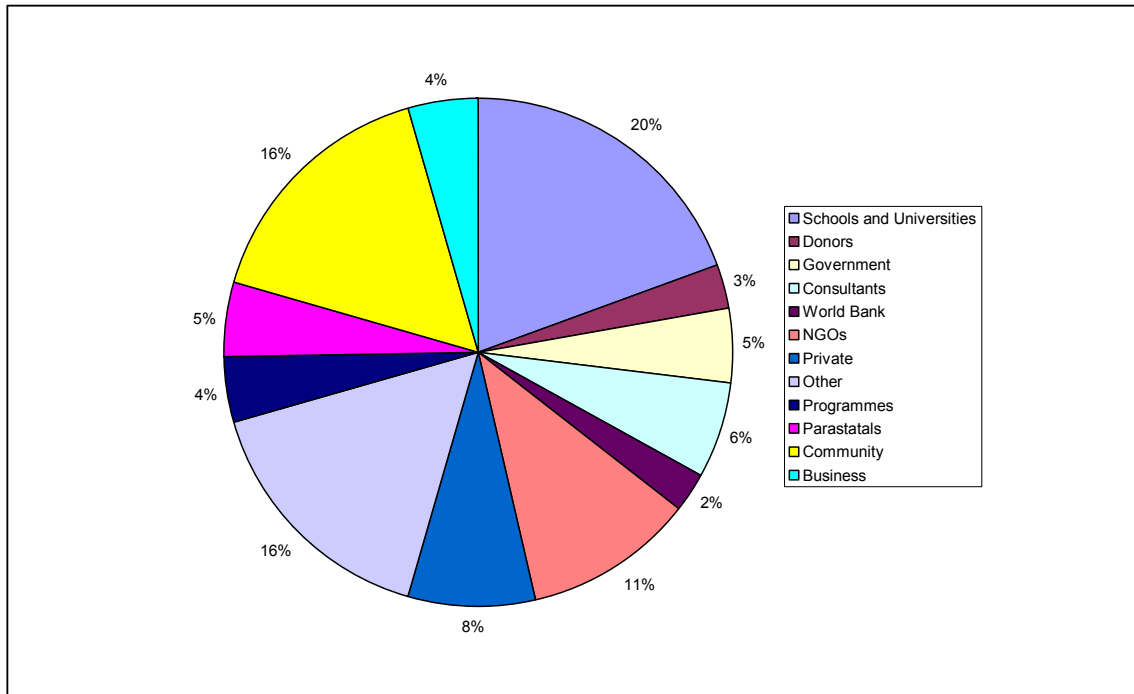


Figure 4 shows the proportions of DLIST registered users that fall into different groups of users.

16% of registered users could not be clearly placed in any of the above groups.

7.2 *Qualitative and Anecdotal Measures*

‘Linking’ Large-Scale Programmes

There are a number of large-scale programmes in the region. Unbelievably, they are often unaware of one another, or are only distantly aware of one another (meaning someone has heard of a programme but has no idea who is involved in it, or what the programme aims to accomplish). Furthermore, entities that can be considered key to planning, such a local and district or regional level governments were often totally unaware of such programmes. For instance, there are a number of programmes and projects funded in full, or partially by the GEF.

They include the CEPF-funded SKEP programme, the NACOMA programme allocated to the ICZMC in Namibia, the RCBCP GEF-funded MSP project, the BCLME programme and BENEFIT. Apart from the GEF-funded programmes, there are also programmes such as BIOTA, the Richtersveld CBNRM Programme funded by Conservation International, GTZ/Transform, and the SCL programme funded by DFID through Marine and Coastal Management (MCM) and other DEA&T poverty relief programmes. DLIST may not have posted everything available on each programme but has covered substantial ground in making people aware of the different programmes and linking them up with one another. Several of them now use DLIST to advertise events, tenders and to make reports available.

‘Linking’ Role Players

By the time the first year-end DLIST report was published in August 2002, sixty government entities and agencies, donor programmes, NGOs, CBOs, Multi-Purpose Resource Centres (MPRCs), CB tourism route players such as the SNTRA, industry players, businesses, institutions and other organizations have interacted through DLIST in one form or another (by opening kiosks, posting discussion forums or signed up as registered users). That number would have more than doubled by now. There were 74 registered users and that number has more than tripled to 232 and more are signing up almost daily. Note that ‘linking’ is in italics because a mere ‘link’ through DLIST is obviously far from sufficient in terms of what is needed in the functional and active linking of role players, but it is a start. It is significant that the vast majority of local and regional government planners in the region are registered users on DLIST as they obviously are networking agents themselves by virtue of being planners.

Contributing to Individual Capacity

Institutions and programmes are fond of boasting about how they were responsible for building the capacity of people on the ground. Such assertions can be dangerous and unfounded and at best are difficult to measure so that such assertions are more often than not meant for the ears of the donors than anyone else. In reality, those individuals whose “capacity has been built” were in many cases already highly capacitated people by virtue of having had to overcome adversity to be in the positions they were in when these programs and institutions first made contact with them. In spite of the difficulties in estimating and accurately identifying the sources of capacity building, at least an attempt should be made to assess the capacity building properties of DLIST. Other than its *information sharing* part, DLIST has also a *distance learning* part. The question arises as to how successful DLIST has been in building the capacity of students that enrolled in the distance learning part of DLIST as part of the first experimental group of ten students, and then later as a semester cohort of distance learning as well as web-assisted students after DLIST has been incorporated into the syllabus of Peninsula Technikon as a fully accredited B Tech course titled *Environmental Engineering – Sustainable development in Coastal Areas*. During a BCLME Working Session on Large Marine Ecosystems at the WSSD, members of the experimental group of DLIST distance learners gave spontaneous and glowing tribute to DLIST as a mechanism to enable people through the sharing of information and making course materials available. The precise effect of DLIST as a fully accredited distance learning and web-assisted course offered at Peninsula Technikon is still being assessed

8 But is DLIST really making a Difference?

Whose reality counts?

That DLIST is increasingly successful in terms of its use by role players and its overall visibility is undisputable. DLIST as a web-based platform is doing well, and there have been a number of requests to emulate it in other Large Marine Ecosystems as well as inland. The more important and much more difficult question to answer is whether DLIST is making, or can be making a positive difference to the lives of those “on the ground”, meaning the vast majority of people who thus far have seen little of the riches of the coastal areas flanked by the Benguela Current. What would making a difference actually mean? How would one measure it? Presumably differences made could be direct by making people aware of opportunities, or more indirect by facilitating integrated development planning that incorporates the needs of all parties. Such questions can be the subjects of sizeable papers and they can scarcely be addressed here fully. Instead, comments are offered as food for thought under the subheadings below, with the purpose of setting the background for the final section that will address where DLIST should be go from here.

Disseminating “Lesson Learned” on Poverty Alleviation

The western world that controls most of the donor funding currently has what can be almost described as a pre-occupation with the poverty of the developing world. Vast sums of money are spent on “Poverty Alleviation”, “Poverty Relief”, “Poverty Reduction” and even “Poverty Elimination” programmes. The “lessons learned” that are generated find their way into academic or working papers for development practitioners, but are seldom if ever spread to the ground where, one assumes, the lessons are often generated and where the successes or failures of the programmes are felt. DLIST has made strong attempts not only to make “lessons learned” accessible to all its users but also to solicit the input of those implementing funding at ground level as well as those affected on the ground. Attempts to solicit these lessons in a collective manner will continue as the body of knowledge from real-life experiences in the region continues to grow. Presumably the effect will be that “lessons learned” will be taken into account during the application of new programmes and projects.

A Voice for the ‘Voiceless’

That there are far more regular visitors than registered users indicates that many more people ‘listen’ to the discussions than those actually taking the step to start a discussion or participate in ongoing discussions themselves. Strong discussions have been started by people from the communities in the coastal and immediate inland areas on topics as wide ranging as donor funding, community-based tourism, the WSSD, rights to biodiversity, the damage caused by the mines, governance issues at the local and regional government level, and even obstacles to development that have their origins in the communities themselves. People from a wide range of sectors, including planners and decision makers read these discussions. Recently there have been increasing requests from people on the ground to be able to start discussions unanimously as many of them still fear repercussions in terms of employment opportunities while a general fear to raise issues surrounding government and governance unfortunately still persists in certain

quarters, although at a much lower level than pre-94. It is expected that people will be more outspoken and will partake in discussions more frequently if they have a choice to do so unanimously (but with the option of adding their names below discussions if they want to).

There is another dimension here. While peoples' names were added below discussions the vast majority of them remain "unanimous" in terms of their positions, stature and "importance". Thus information is spread in a manner that is not "weighted", meaning that everyone's opinion theoretically counts as much as the opinion of the next person. It is encouraging that people "listen" to one another on DLIST, regardless of who they are, even if they may not do so outside cyberspace. This again points to DLIST as a "melting pot" of information and a "pool of information" that is diverse in terms of both its origin and its users. DLIST registered users come from schools and universities, the donor community, government, consultants, the World Bank, NGOs, the private sector, environment and development programmes, parastatals, coastal communities and the business sector. No single group dominates the users profile and users hailing from what can be considered historically disadvantaged communities fall in the top three user groups.

The question arises whether DLIST may in fact be starting to serve as a "voice" for the previously "voiceless"? If so, then it is starting to bridge an extremely important gap, and one that is notoriously difficult to close in a systematic and sustained manner. By facilitating information sharing, DLIST also acts as an agent of transformation. It enables a dynamic collective voice from the ground to be heard, as well as from partners who have sustainable development at heart. It made strong input into the World Summit for Sustainable development (WSSD), both through high level input into the pre-WSSD Oceans and Coasts at Rio + 10 where the DLIST presentation received the only standing ovation, and at the WSSD itself where community members had the opportunity to increase their visibility and interact with managers of large programmes. At least partly as a result of these interactions there is an increasing awareness of some of the mega-programmes of the need to involve communities, even if such involvement was not included in their original inception.

The inclusive approach inherent in DLIST and its close affinity to planners and the IDP process, at least in the Richtersveld Municipal Area, also makes it an excellent planning tool. The premise would be that information sharing and making knowledge accessible to a range of role players would facilitate convergence in planning for sustainable outcomes, including having an effect on integrated development plans and the implementation of stand-alone projects. In contrast to, say, a government agency website or a virtual university course, DLIST places substantial value on obtaining knowledge and information held by local players, including communities. Such knowledge helps to define the context of development in the region, and thus can thus influence integrated development planning to be more "equitable" in its aims, and therefore more sustainable. Most importantly, the flow of information through DLIST significantly influences the imbalance that exists between the "knows" and the "know nots", the knowledge divide that correlates closely with the "have's" and the "have nots". After all, knowledge is power, and power and money often go hand in hand.

9 The Road Ahead

The web statistics clearly show that the saturation point of DLIST has not been reached. More and more people are starting to make use of this ICT innovation. The degree to which the ground will find their voice in DLIST is largely limited by access to computers. The web has the potential to be a great equalizer, but like television it represents “neutral” technology and therefore it is important that KM platforms such as DLIST exist that will allow the historically disadvantaged communities to share and contribute to the available body of knowledge at all times. The availability of hardware and internet connections still fall far short of what is necessary and poverty alleviation and other projects would be wise to work toward increased access to the web at every opportunity¹¹. It is encouraging that DLIST is gaining increasingly wider participation, including by the Richtersveld Youth and SARUNO, a trilateral schools initiative involving South Africa, Russia and Norway aimed at building awareness surrounding the burning issues of water quality and availability. This is not the only example of DLIST straddling the North and South, as many open and frank discussions were also had between people from those two “halves” of the planet.

DLIST is destined to play a growing role in integrated development planning throughout the region. It recognizes that coastal management and integrated development planning to a large extent are political processes that involve a number of key actors and interest groups in addition to government (Beatley, et al. 1994). These different coastal stakeholders and groups have different perspectives on coastal management integrated development planning. Management decisions and planning directives are often the result of the interplay between these different groups. Decisions tend to be based on available information. For DLIST to be an “honest broker” it must promote transparency, provide open access to information resources, yet operate independently from political processes or development agendas set by powerful role players. The problem of information control is partly overcome by providing different players with the possibility to have their own “information kiosks” attached to the DLIST information platform for which they will control the content. Furthermore, the DLIST platform is designed to have bulletin boards, discussion forums, and so on, to which any party can contribute.

Finally, the sustainability of DLIST needs to be commented on. Now that it has been established as a pilot DLIST is not expensive to maintain. However, there are continuous calls for its expansion to the rest of the BCLME coastal areas, as well as to the Agulhas Current coastal areas, in particular Mozambique and Madagascar and potentially even the Norwegian Shelf, the White Sea and the Barents Sea. The pre-occupation with LMEs is a result of DLIST being a pilot project supported by GEF International Waters funding through IW:Learn and the World Bank. As an ICT innovation it can be as easily applied to the realm of fresh water, protected areas or any other part of the globe where there is a need for knowledge management and an equalisation of access and opportunity. It is the latter point that distinguishes DLIST from being a mere database or information exchange for which much less complicated ICT platforms will suffice.

8 Acknowledgements

¹¹ At grassroots level DLIST-related information is disseminated to the broader public through a newspaper called the *Richtersveld News* that is published by the Richtersveld local government. It is not surprising that the Richtersveld Municipality has been praised, and is held forth as an example of a municipality that is taking full advantage of the IDP process, one that is described as *government planning with the people*.

DLIST HAS ESSENTIALLY BEEN A COLLECTIVE EFFORT INVOLVING NUMEROUS PARTIES. HOWEVER, THOSE INVOLVED IN ITS EARLY INCEPTION, SPECIFICALLY INDU HEWAWASAM AND ANDY HOOTEN OF THE WORLD BANK AND CARL LUNDIN OF IUCN SHOULD BE SINGLED OUT FOR THEIR DOGGED BELIEF IN THIS PARTICULAR ICT INNOVATION; ICRIFORUM THAT LED THE WAY IN PROGRAMMING; DANN SKLAREW AND IW:LEARN STAFF FOR THEIR ROLE IN MANAGING GEF FUNDING AND SUPPORTING DLIST IN OTHER WAYS; HAYLEY RODKIN OF THE DEPARTMENT OF WATER AFFAIRS AND FORESTRY (DWAF) FOR AMELIORATING THE USES OF DLIST AND ILYAS OMAR OF PENINSULA TECHNIKON FOR ESTABLISHING DLIST AS A FULLY ACCREDITED COURSE AT A TERTIARY INSTITUTION; A SUCCESSION OF ECOAFRICA TASK MANAGERS INCLUDING NEIL GRANGE, BERNICE MCLEAN, SASCHA EDELSTEIN, IAN TURNER AND THOMAS COUSINS; NUMEROUS CONTRIBUTORS TO THE DISTANCE LEARNING COURSE MATERIALS, AND FAR TOO MANY TO MENTION; THE BCLME PROGRAMME FOR CONTINUING SUPPORT; AL DUDA OF THE WORLD BANK FOR CHARACTERISTIC ENTHUSIASM AND ENCOURAGEMENT; THE DEPUTY MINISTER OF DEA&T, THE HONOURABLE REJOICE MABUDAFHASI FOR HER UNWAVERING SUPPORT; BUT MOST OF ALL, THE REGISTERED USERS OF DLIST, FAR TOO MANY TO NAME, THAT MAKE DLIST WHAT IT IS.

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10 List of Acronyms

CB	Community-based
CBNRM	Community-based Natural Resource Management
CBO	Community – based Organisation
CEPF	Critical Ecosystems Partnership Fund
CI	Conservation International
CSIR	Council for Scientific and Industrial Research
CPA	Community Property Association
DEA&T	Department of Environment and Tourism
DLIST	Distance Learning Information Sharing Tool
DFID	Department for International Development (Britain)
DWAF	Department of Water Affairs and Forestry
EMPR	Environmental Management Programme Report
IDP	Integrated Development Plan
FAMDA	Fishing and Mariculture Development Association
GEF	Global Environment Facility
GTZ	German Technical Co-operation
ICZMC	Integrated Coastal Zone Management Committee
ICRIFORUM	International Coral Reef Initiative Forum
ICZM	Integrated Coastal Zone Management
IW:LEARN	International Waters Learning Exchange and Resource Network
KM	Knowledge Management
LME	Large Marine Ecosystem
MCM	Marine and Coastal Management
MPRC	Multi-purpose Resource Centre
NGO	Non – governmental Organisation
NORAD	Norwegian Agency for Development Cooperation
MET	Ministry of Environment and Tourism (Namibia)
MSP	Medium-sized Project (relating to the GEF)
NACOMA	Namib Coast Biodiversity Conservation and Management Program
NAMDEB	Namibian Division of De Beers
NCCWG	Northern Cape Coastal Working Group
NCNCS	Northern Cape Nature Conservation Services
NGO	Non-government Organization
NORAD	Norwegian Government Funding Agency
PPF	Peace Parks Foundation
Ramsar	Town in Iran after which the Ramsar Convention is named
RCBCP	Richtersveld Community Biodiversity Conservation Programme
RNP	Richtersveld National Park
SAD	Staats Alluviale Delwerye
SAHRA	South African Heritage Resources Association
SANParks	South African National Parks
SCL	Sustainable Coastal Livelihoods (programme managed by MCM)
SDI	Spatial Development Initiative
SKEP	Succulent Karoo Ecosystems Plan
SNTRA	South-North Tourism Route Association
TFCA	Transfrontier Conservation Area

TFP	Transfrontier Park
WB	World Bank
WBG	World Bank Group
WHS	World Heritage Site
WSSD	World Summit for Sustainable Development