

BIODIVERSITY & CONSERVATION

Lessons learnt from the SABONET Project whilst building capacity to document the botanical diversity of southern AfricaStefan J. Siebert¹ & Gideon F. Smith²¹ SABONET Regional Office, Private Bag X101, Pretoria 0001, South Africa. stefan@nbipre.nbi.ac.za² National Botanical Institute, Private Bag X101, Pretoria 0001, South Africa. gfs@nbipre.nbi.ac.za

The Southern African Botanical Diversity Network (SABONET) is a donor-funded capacity building project supported by the GEF-UNDP and USAID/IUCN ROSA. The ten southern African countries that make up the network are Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. Participating institutions in these countries are involved in the compilation of national plant checklists, production of botanical inventories for centres of plant diversity, regional and national plant collecting expeditions, computerisation of herbarium specimens, support of postgraduate studies in systematics, biodiversity research projects, regional and national training courses and workshops, implementation of threatened plants programmes in botanical gardens and the compilation of Plant Red Data Lists. Since the inception of the Project in 1996, these efforts have contributed positively towards networking and capacity building among botanists and providing baseline information for the in situ and ex situ conservation of the flora of the southern African region. This paper discusses the lessons learnt during the implementation of the Project up to June 2002 and outlines the contribution SABONET has made towards building the capacity of focal institutions in southern Africa. It also highlights the main strengths of the project and provides a 20-point plan for a successful regional network. Other issues that pertain to the SABONET Project are discussed under challenges and opportunities, constraints to improvement and complementing other networks. It is hoped that this paper will provide some insight into the experience of southern Africa in documenting biodiversity. By evaluating our successes and failures we hope the findings presented in this paper will serve as guidelines for other projects to accomplish even more than we had.

KEYWORDS: Biodiversity, botany, capacity building, GEF-UNDP, network, southern Africa, taxonomy.

INTRODUCTION

Since the inception of the project in 1996, the Southern African Botanical Diversity Network (SABONET) has made a significant contribution to networking and capacity building among botanists in southern Africa (Siebert & al., 2001; Willis & Huntley, 2001; Huntley & al., 2002). All our efforts have contributed positively towards baseline information for the documentation of the flora of the southern African region. Currently, all ten southern African countries participating in the Project, namely Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, are preparing National Plant Checklists (Craven, 1999; Chapano, 2002). This process is strengthened through the SABONET-sponsored computerisation process whereby herbarium specimens are databased (Arnold & Siebert, 2002) and the SABONET Internship Programme that supports cross-border collaboration and in-country research (Timberlake & Paton, 2001).

The SABONET Project is essentially a Global Environment Facility (GEF) project implemented by the United Nations Development Programme (UNDP). Co-funding was sourced from the United States Agency for International Development (USAID) through the Networking and Capacity Building Initiative of the World Conservation Union's Regional Office for Southern Africa (IUCN ROSA). Full GEF funding became available in September 1997, with the official starting date of the project on 1 April 1998. Execution, financial control and administration of the Project are managed by the National Botanical Institute of South Africa.

The Project is guided by a regional Steering Committee comprising a representative from each of the ten participating countries, and is strengthened by the inclusion of GEF-UNDP staff. A Regional Office based at the National Herbarium in Pretoria, South Africa, supports the Steering Committee. In addition, each participating country has a National Working Group, comprising a broadly based representation of stakeholders, to

monitor in-country progress and to make recommendations. A Logframe/Budget Revision committee meets once a year to develop and update the Project's workplan.

The workplan is based on the priority outputs for the SABONET Project that were defined in the project document (Huntley & al., 1998) and have subsequently been amended and broadened to include new core activities within the project (Timberlake & Paton, 2001). The major project outputs are:

- A formally established collaborating Southern African Botanical Diversity Network.
- Trained professional southern African plant taxonomists and plant diversity specialists.
- Electronic information systems to document the plant diversity of the region.
- Herbaria capable of producing National and/or Poaceae Checklists.
- Herbaria provided with the necessary capital equipment for taxonomic research.
- A regional Plant Red Data List.
- Compilation of regional human and infrastructural inventories.
- Production of regional herbarium and taxonomic manuals.
- Evaluation and monitoring of plant diversity within the region.
- An Action Plan for southern African botanical gardens.
- Threatened Plants Programmes initiated in each of the participating botanical gardens.

Although most of these outputs have been met and are occasionally developed further, of late specific focus has been on the production of National Checklists, documentation of Centres of Plant Diversity and Endemism and the implementation of Threatened Plants Programmes. All in all, these outputs form the core of what the Project aims to achieve: a functional regional botanical diversity network capable of producing products and ideas that can be used and implemented in national and regional conservation initiatives.

This paper outlines the contribution that SABONET has made towards baseline information for conservation initiatives and considers the specific strengths and weaknesses of this botanical network in southern Africa. Recommendations are based on SABONET activities and procedures and can assist similar projects to function successfully as regional networks.

Project success. — SABONET takes great pride in the documentation of the region's rich plant diversity (Klopper & al., 2002) and the building of capacity in the regional herbaria (Smith & Willis, 1999). There are great potential scientific and economic opportunities attached

to this process of knowledge gathering and regional cooperation (The World Bank, 2002). SABONET has made many successful contributions towards the project objective, namely to “develop a strong core of professional botanists, taxonomists and plant diversity specialists within the ten countries of southern Africa, competent to inventory, monitor, evaluate and conserve the botanical diversity of the region in the face of specific developmental challenges, and to respond to the technical and scientific needs of the Convention on Biological Diversity”. Siebert & al. (2001), Willis & Huntley (2001) and Huntley & al. (2002) have previously reported on the accomplishments of the Project but, to summarise, SABONET has:

- Networked 17 regional herbaria and 22 botanical gardens in 10 countries.
- Appointed 75 contract staff at participating institutions to conduct project activities.
- Conducted 28 regional and national courses and trained 398 participants.
- Supported 26 postgraduate students to obtain 14 B.Sc. Hons and 22 M.Sc. degrees.
- Provided herbaria with capital equipment, e.g. 4x4 vehicles, GPS, microscopes, etc.
- Computerised 450 000 herbarium specimens (160, 000 grass specimens).
- Published a regional Plant Red Data List with 4,100 assessments of threatened species.
- Prepared draft National Checklists for publication in 2003/2004 by ten participating countries.
- Supported approximately 20 representatives from herbaria to attend the Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT) Congress.
- Conducted two regional plant collecting expeditions (collected 5,000 specimens).
- Undertook approximately 20 national collecting trips to under-collected areas (collect approximately 2,000 specimens per annum).
- Supported over 50 internships between herbaria or botanical gardens per year.
- Initiated four workshops for end-users of plant taxonomic information in Malawi, Namibia, South Africa and Zimbabwe.
- Compiled a comprehensive Index herbariorum for southern Africa.
- Developed a Southern African Botanical Gardens Network comprising 22 gardens.
- Initiated Threatened Plants Programmes in each of the 22 participating gardens.
- Provided support for participants from 22 participating gardens to attend the African Botanic Gardens Congress.
- Published 18 numbers of the SABONET Report

Series.

- published 7 volumes (20 editions) of the project newsletter, a total of 1 422 pages.
- Published 17 articles on Botanical Garden Living Collections and 13 articles on Southern African Herbaria.
- Kept a dedicated website for the project: <http://www.sabonet.org/>
- Provided a dynamic Information Technology support system to maintain the hardware and software used for the computerisation of herbarium specimens.
- Provided sufficient funds for participating institutions to send staff on management, computer and related courses in country.

Project recognition. — From a SABONET point of view, it is easy to suggest that it is successful. However, on the international and national front, the contribution of the Project has also been recognised and it can be seen as one of the precursors to the New Partnership for Africa's Development (NEPAD), as SABONET focuses on the empowerment of local plant taxonomists and plant diversity specialists. The following comments directly and indirectly emphasize SABONET's importance as a regional taxonomy project:

“SABONET was one of 12, out of the over 1,000 GEF projects worldwide, mentioned in the Second Study of GEF's Overall Performance. It was commended on its interaction and networking between institutions and countries, its use of media and newsletters, the implementation of database technology and its potential to serve as a base for the development of new projects.”

Source: GEF/UNDP Regional Bureau for Africa, minutes of the 11th SABONET Steering Committee Meeting.

“SABONET is recognised as having a major role to play in increasing human and institutional taxonomic capacity directed at meeting the needs of implementing the Convention on Biological Diversity. In addition, SABONET is a pilot at the regional level for the development of a coordinated global taxonomy information system.”

Source: 6th Meeting of the Conference of Parties, Global Taxonomy Initiative, Programme of Work, Planned Activities, <http://www.biodiv.org/decisions/>.

“Regional taxonomy networks, such as SABONET, with assistance from BioNET-INTERNATIONAL and UNESCO, should be strengthened to facilitate regional cooperation in taxonomy as part of Planned Activity 6 of the GTI Programme of Work.”

Source: Letter from the Executive Secretary, Convention on Biological Diversity, to the Chairperson, SABONET Steering Committee.

“The definition of sustainable development is harder to apply than to understand - since ecosystems and natu-

ral resources sprawl across borders, a high degree of cooperation and knowledge-gathering between nations is needed to gain a holistic view of sustainability.”

Source: South Africa's Department of Environmental Affairs and Tourism, Official Brochure to the World Summit 2002, “*People, planet, prosperity: Towards a new global deal*”.

MATERIALS AND METHODS

This article has been compiled from various unpublished internal sources, which include the Agenda Documents and Minutes of the 11th, 12th and 13th SABONET Steering Committee Meetings, four sets of Tripartite Review Recommendations, five Project Implementation Review (PIR) Reports submitted to UNDP (1998–2002), five Annual Project Reports submitted to the NBI (1998–2002), one Midterm Review Report (2001) and 20 Quarterly Reports (1998–2002). All documentation is available from the SABONET Regional Coordinator at any of the authors' addresses listed above.

RESULTS AND DISCUSSION

Strengths. — The accomplishments of the Project and its international recognition (Golding, 2001; Huntley, 2002) can be ascribed to various inadvertent strengths. These strengths are central to the success of the network and can be attributed to various aspects that have played a pivotal role in the functioning of the Project:

1. A champion dedicated to the development of the project: Since 1990, Prof. Brian Huntley, CEO of South Africa's National Botanical Institute, has been prominent in initiating the network, sourcing the donor funding, developing the project proposals and chairing the Steering Committee.

2. A Steering Committee with a passion for taxonomy: Ten national coordinators from the ten coordinating institutions fitted the project into already full schedules and go out of their way to attend Steering Committee Meetings, coordinate SABONET staff and students, submit the Quarterly Reports, manage the country finances and initiate national project activities.

3. A strong, dedicated Regional Office: A committed Regional Coordinator, Administrative Officer, Financial Officer and Editor provide the network with the necessary back-up to ensure that deadlines are met, activities initiated and completed, finances managed, countries informed, meetings and courses arranged, publications produced and links between countries are fos-

tered.

4. An established executing agency: The National Botanical Institute is one of the strongest taxonomic institutions in the southern hemisphere and provides the necessary expertise, infrastructure, linkages, knowledge, information technology and human resources to assist with the many activities of a ten-country project.

5. An experienced implementing agency: The UNDP has considerable experience in project management and is well represented within southern Africa, which positions it well to provide the necessary support and personnel, to ensure that the correct procedures are followed and to implement activities to evaluate and monitor the Project.

6. A GEF funding mechanism: Projects that receive GEF funds are allowed to revise their budgets and logframe each year, and this allows the Project to be flexible in its activities and outputs, to address new issues after assessing the Midterm Review recommendations (Timberlake & Paton, 2001) and to reallocate funds that are locked in budget lines/logframe activities not linked to core outputs.

7. A collaborating network: Approximately 200 taxonomists from across the region have actively collaborated in SABONET activities and this willingness to partake in the Project has drawn together a wide range of expertise to meet the many objectives posed by the Project document.

8. An effort to meet sustainability: SABONET has built a solid base of botanical researchers and plant information databases that can sustain future projects to continue the documentation of the region's flora, to assist with bioregional planning and to contribute to conservation initiatives within southern Africa.

9. A spirit of regionalism: Considering the large area covered by the Project, the collaboration between different countries and cultures is a victory in itself. It indicates that there are shared goals within the subcontinent, providing the necessary political backing for taxonomic research which is not always available at a national level.

10. A regular monitoring and evaluation procedure: The UNDP/GEF's Annual Project Review, Project Implementation Review, Midterm Review and Terminal Review, and the Project's own Annual and Quarterly Reports and Logframe Revision are invaluable in their ability to insure that relevant Project outputs have been set, implemented and met by the end of the Project.

11. A South-South solution: Taxonomic expertise within southern Africa were predominantly of a colonial origin, but in most countries it was lost after independence; the void was subsequently largely filled by local people and their efforts are now being strengthened through the SABONET Project by sponsoring MSC

degrees and internships to improve capacity at the scientific level, whilst awareness raising plays an important role to reach and influence civil society.

Lessons learnt.— The execution of the SABONET Project and the implementation of its activities across the region has not always been a smooth process and many obstacles were encountered during the past five years. The many lessons learnt in overcoming these difficulties could be of assistance to other developing networks (BioNET-INTERNATIONAL 2002) and to the Programme of Work of the Global Taxonomy Initiative (Klopper & al., 2001). A few important lessons are:

1. Staff shortages: Activities of participating institutions in the region were hampered by staff shortages, but to counter this problem SABONET appointed over 70 contract staff in the region. Owing to the nature of contract positions, postgraduate studies and absorption by other institutions, the project has experienced a high turnover of trained staff, with a resultant continuous drain of knowledge and need to repeat many courses. Most participating institutions have failed with efforts to retain trained SABONET staff. Future projects should encourage participating institutions to appoint project staff in permanent positions to retain the capacity that has been built.

2. National coordination: The responsibility for coordination of the Project in each country has been given to a single individual (head of institute/department/herbarium) who runs the Project in collaboration with a National Working Group. Although this set-up has proved successful, making use of an already over-occupied individual as the National Coordinator has had negative effects on the Project. Coordination of up to ten projects in addition to already heavy national workloads in some under-staffed institutions has placed coordinators under much strain. Future projects should consider appointing a National Coordinator in each country and the head of institute/department/herbarium could then be elected as the Chairperson of the National Working Group.

3. Computer skills: At the start of the Project it was assumed that all staff were computer-literate and able to manage computer systems and databases. It soon became clear that this was not the case, but computer courses alleviated the problem. However, computerisation was still hampered by many problems and was countered only when a SABONET Information Technology (IT) section was established to react to problems and breakdowns experienced by the participating countries. Future projects should therefore seriously consider involving IT specialists at an early stage to provide support and training to any project making use of extensive computerisation activities.

4. Project outputs: All projects have a set of major outputs at the end of its term to illustrate its relevance to donor agencies and the broader society. A major output of the SABONET project is a strong core of professional botanists and plant information databases. The Midterm Review of the project highlighted that these outputs were excellent, but not tangible to the end-users of taxonomic information. It was therefore recommended by the Midterm Review that National and Poaceae Checklists should be seen as priority outputs for the Project. As not much thought was given to train staff in techniques to compile and produce these publications in a competent way during the life of the Project, much strain was placed on the countries to deliver these products. Future projects should structure their training programmes to be output-driven and linked to all the priority outputs of the project.

5. Poorly resourced participants: As with any project, not all participating countries are at the same level of development and they exhibit different capacities to achieve project objectives. As a result, some participating institutions seem to make slow progress when compared to the achievements of the stronger ones. Those with low capacities are therefore often not as motivated as the stronger institutions that meet deadlines and project activities with ease. Future projects should consider a reward system to recognise good progress made by poorly resourced countries. These rewards can, for instance, be in the form of internships to work with partners at stronger institutions to achieve project objectives.

6. Government buy-in: Capacity building is seen as an important component of development by southern African governments and SABONET has contributed significantly towards this vision. Unfortunately governments have not shown major support of the SABONET Project, as substantial national funding has not surfaced in any of the countries to support ongoing activities in the region after the Project has ended. Although SABONET has marketed itself internationally, nationally there has been very little exposure to governments in some countries. Future projects should consider serious involvement with national objectives and be active in their contribution towards and participation in development initiatives of the respective countries.

7. End-user needs: End-user needs have not been considered a priority for the development of SABONET project activities, although most of them have been in line with the needs of the region. The Project's Midterm Review has highlighted this weakness and has recommended a strategy to involve stakeholders in the process of determining Project objectives. Recent national workshops to determine and address the needs of end-users have brought to light many taxonomic needs that can be

considered by future projects (Steenkamp & Smith, 2002).

8. Sustainability: All donor-funded projects come to an end and hardly ever last longer than ten years. In the light of sustainability, countries were not guided or involved in activities on how to raise their own funds to initiate new projects. Participating institutions are therefore dependent on SABONET to lobby for funding for new projects to enable them to continue with the good work that came from the current Project. Future projects must realise that a follow-on project to sustain the activities of a current project is not always possible, and that it must guide and support participating institutions to launch their own initiatives.

9. Language differences: When regional boundaries and not cultural ones are followed, countries with different national languages are expected to collaborate. In the SABONET project, most countries have English as an official language, but unfortunately the two Portuguese-speaking countries experienced language constraints during postgraduate training courses, which were all presented in English. Future projects should consider this issue and implement the necessary steps to enable minority groups to partake fully in project activities and to gain optimally from learning opportunities.

10. Communication: Participating institutions of the SABONET Project are situated in different countries that are at different stages of economic and social development. In some cases, communication by the most efficient means such as telephone, fax and e-mail is not always possible or very limited; during critical situations this becomes a drawback to the Project. Communication blocks can be overcome by making use of recognised courier services and future projects should consider this option as a back-up or an alternative to suit their needs.

11. Financial management: Donor-funded projects have large budgets and are usually managed within the existing systems of the implementing or executing agency. SABONET placed this responsibility on the National Botanical Institute as the executing agency, because delays were experienced when transferring funds through the overloaded implementing agency, UNDP. Future projects should therefore consider basing their Regional Office in the most established institution in the project area so as to make use of a well-structured financial management system. Furthermore, because financial management can become a daunting challenge to non-financial managers, it is wise to appoint a dedicated Financial Officer for financial administration.

12. Documenting biodiversity: Various national and regional plant collecting expeditions were conducted during the life of the Project. These expeditions were extremely successful and have contributed considerably towards raising awareness and increasing botanical

knowledge of centres of plant diversity that have not been studied in sufficient detail in the past. Shortcomings and experiences are discussed in papers by Willis & al. (2000) and Siebert & al. (2002), which can be studied by planners of future projects before embarking on similar endeavours to document biodiversity in under-sampled areas.

13. Training courses: SABONET has developed various courses to train herbarium assistants and data-entry clerks to achieve the objectives of the Project. Not much effort was put into the training of national project managers and at times they struggled to assist their staff sufficiently when they experienced problems or asked difficult questions. The Midterm Review realised this weakness and subsequently various courses for managers were implemented to try and improve their capacity to manage project activities. Future projects should consider training all management staff to equip them to manage those that work for a project/programme under their supervision.

14. Publications: Regional projects usually have a requirement, as a commitment to the donor agency, for publications to inform the broader society of their activities and to deliver major outputs. Participants in the SABONET Project were not adequately trained and encouraged to take up their pens and publish, because of a lack of mentorship within the Project. Future projects could consider including this aspect in training courses, appointing a focal point dedicated to editorial needs and making use of internships to work in collaboration with experts.

15. Access to information: Outputs within SABONET have been based on furthering the work done by developed countries during colonial occupation, but unfortunately this information has been difficult to obtain in many instances. Where available, access to information has also been limited because it is not available electronically. The compilation of plant diversity databases would have been much easier if institutions had easy and complete access to electronic versions of already published lists. Future projects must consider, as a major output, obtaining electronic versions or digitising available information of work already done by other projects.

16. Data quality control: The main activity in the SABONET project has been the computerization of major herbaria in southern Africa, which is defined as the process whereby the information on the data labels of herbarium specimens is entered into a database. As data-entry clerks had no formal botanical training, this exercise was error prone. Future projects should endeavour to appoint and train information officers to conduct quality control of the database, which will increase the accuracy of entered data and enable staff to deal more efficiently

with database queries.

17. Follow-on project: Although SABONET is a regional project recognised for documenting plant diversity and has contributed significantly to the development of southern African botany, no assurance of a SABONET follow-on initiative has been given. Despite the taxonomic impediment which is recognised worldwide, international donors have not committed themselves to fund future taxonomic projects in Africa (Klopper & al., 2001). Future projects should lobby extensively for the recognition of the value of taxonomic work to ensure that there is a continuous process of follow-on projects to document the rich biodiversity of Africa for conservation initiatives.

Challenges and opportunities. — Considering the lessons learnt, the major outputs and successes of SABONET and development of future follow-on initiatives, certain challenges and opportunities will be pursued during the remaining approximate 12 months of the Project. Each participating institution and country will have the responsibility to drive the following activities:

- Articulate the importance of taxonomy and biodiversity to national governments.
- Link with government departments to consider national policies.
- Establish relevance to and needs of end-users.
- Seek greater media coverage of the Project's accomplishments.
- Create partnerships with high-capacity countries.
- Become actively involved in the GTI Programme of Work.
- Optimise current resources to meet priority outputs.
- prioritise important areas for future involvement.
- Investigate cross-border projects.
- Further develop existing internship programme.
- Make databases accessible to potential users.
- Consider sustainability in capacity development needs.

Constraints to improvement. — SABONET has identified its major priorities and has become more focussed after the Midterm Review of February 2001. Furthermore, the official closing date of the Project was 31 March 2002, but adequate funds will allow us to carry on until 31 December 2003, which allows adequate time to meet the Midterm Review Recommendations (Timberlake & Paton, 2001). SABONET has now entered its Exit Strategy and will be scaling down on activities not contributing towards priority outputs. However, many constraints have been noted with regard to current objectives to improve outputs and achieve goals. These constraints were not realised at the start of the project and cannot be rectified with the remaining Project funds. A few of them are:

- Lifespan of the Project is too limiting to complete

- the computerisation process.
- Not all the countries are at the same level of development, and this hampers outputs.
 - Political beliefs and negative management situations affect productivity.
 - National priorities within institutions do not always coincide with those of SABONET.
 - Many institutions have staff shortages and use SABONET staff for unrelated duties.
 - Lack of infrastructure and equipment shortages affect research negatively.
 - Staff need higher levels of computer skills to rectify computer or network breakdowns.
 - Lack of staff with higher degrees in taxonomy to complete comprehensive checklists.
 - Governments are unaware or ignorant of the region's undocumented rich plant diversity.
 - Networking is limited to specific participating institutions in the region and hardly reaches beyond.
 - There is no dedicated or only limited government budget for research after SABONET comes to an end.

The above points are all very important issues that any developing project must consider. These issues seem very obvious and a matter of course, but during the first half of any project, management staff are usually extremely occupied with implementation activities and not enough attention is given to address the issues above.

Complementing other networks. — Despite the constraints experienced by SABONET, it still remains a flagship capacity building taxonomy project that has been recognised throughout the continent and even the world. Many similar projects developed their networks and projects based on the same principles as SABONET, for instance:

- The SABONET Project Document and initial newsletter prompted East African taxonomists to initiate a similar project in their region called the Botanical and Zoological Network of East Africa (BOZONET).
- The SABONET network and the capacity of its information systems formed the basis of an Italian-funded useful-plants project called Service for Environmental Conservation of Biodiversity and Sustainable Development (SECOSUD).
- The SABONET national coordinators are supported to present research and work at AETFAT congresses.
- The SABONET project has initiated a Southern African Botanical Gardens Network and took part in and sponsored the first African Botanic Gardens Congress (ABGC).
- The SABONET herbaria are kept up to date, as a regional partner, with activities of the Southern

African Network (SAFRINET) of BioNET-INTERNATIONAL.

- SABONET is represented at taxonomy-related meetings and actively participates in the Global Taxonomy Initiative (GTI) and the Global Taxonomy Workshops (GTW).
- SABONET institutions are subscribed to Plant Talk and BGC News to keep in touch with news and views on plant conservation worldwide.

RECOMMENDATIONS

When considering the strengths of the Project, the lessons learnt, the challenges, the opportunities and the constraints to improvement, the SABONET experience can act as a recipe for future projects. SABONET has taught us many things, but certain important issues are pivotal for the development of a functional and effective regional network. A 20-point plan to develop a successful regional taxonomy network to support national and regional conservation initiatives could comprise the following:

1. Strong, dedicated Regional Office (Secretariat).
2. Financial Officer for efficient management.
3. Regular interaction between participants.
4. Clearly defined and formulated project objectives.
5. Project activities realistic and within timeframe.
6. Reporting requirements of the donor agency.
7. Provisions for management/evaluation costs.
8. Job descriptions for participating staff and adherence to it.
9. Strong linkages with donor and/or implementing agency.
10. Clearly defined role of donor and/or implementing agency.
11. Flexible project design to adapt to change.
12. Appropriate, regular feedback on evaluation and/or monitoring findings.
13. Annual logframe allocation and budget revision workshops.
14. Balance between reporting and implementation activities.
15. Study similar projects and learn from mistakes.
16. Diplomacy and good management is essential.
17. Taking part in national conservation initiatives.
18. Excellent training programmes and opportunities.
19. Regional collaboration and mentoring through internships.
20. Facilitating a realistic approach to sustainability.

CONCLUSION

The process of managing and implementing a ten-country donor-funded project has been a steep learning curve for all those involved. Efforts to achieve Project goals were hampered by many obstacles, but the participants' willingness to succeed was a major factor in the Project's success. SABONET and its associated achievements have filled a niche in southern African plant taxonomy that has, for various reasons, been vacant for a long time. The goodwill, diplomacy and hard work of the Steering Committee and the cooperation, active participation and mutual support by all involved, have ensured the success of the Project. As a result of this dedication to the Project, SABONET has become a network that the rest of the world can follow as an example of how a cluster of countries can put aside their differences and work together towards achieving common goals derived from the Convention on Biological Diversity.

Opportunities for regional collaborative taxonomic research are now greater than ever before in Africa. What remains now is to lobby national governments, Convention on Biological Diversity focal points and donor agencies to demonstrate the need for the initiation and continuation of regional networks to document plant diversity as part of the GTI Programme of Work. It is hoped that the successes of SABONET will motivate donor agencies to invest in African development programmes and that the lessons learnt through SABONET will aid other networks, not only in the development of similar taxonomic capacity building initiatives, but also more applied conservation projects that are relevant to sustainable development and bioregional planning.

ACKNOWLEDGEMENTS

Our appreciation to GEF-UNDP and USAID/IUCN ROSA for funding this successful project. Prof. Brian Huntley, Chairperson of the SABONET Steering Committee, is thanked for valuable discussions pertaining to the SABONET Project. Our appreciation to the National Coordinators of the SABONET Project for their hard work and dedication: Prof. Esperança da Costa (Angola), Mr. Nonofu Mosesane (Botswana), Mr Moretloa Polaki (Lesotho), Dr. Augustine Chikuni (Malawi), Mr. Calane da Silva (Mozambique), Dr. Gillian Maggs-Kölling (Namibia), Mr. Titus Dlamini (Swaziland), Dr. Patrick Phiri (Zambia) and Ms. Nozipo Nobanda (Zimbabwe). Special thanks to Ms. Emsie du Plessis, National Botanical Institute, for proof reading the manuscript.

LITERATURE CITED

- Arnold T. H. & Siebert S. J.** 2002. Computerisation of Southern Africa Herbaria: Regional Update. *SABONET News* 7: 92–96.
- BioNET-INTERNATIONAL.** 2002. Third Global Taxonomy Workshop agrees to partnership approach for Global Taxonomy Initiative for CBD. *BioNET-INTERNATIONAL News* 11: 1–5.
- Chapano C.** 2002. *A Checklist of Zimbabwean Grasses*. SABONET Report Series No. 16. SABONET, Pretoria.
- Craven P.** (ed.). 1999. A checklist of Namibian plant species. SABONET Report Series No. 7. SABONET, Windhoek.
- Golding J. S.** 2001. Southern African herbaria and Red Data Lists. *Taxon* 50: 593–603.
- Huntley B. J.** 2002. South Africa: the flowering of the Rainbow Nation. *Plant Talk* 29: 34–40.
- Huntley B. J.** (ed.). 1998. *Inventory, Evaluation and Monitoring of Botanical Diversity in Southern Africa: A Regional Capacity and Institution Building Network (SABONET)*. SABONET Report Series No. 4. SABONET, Pretoria.
- Huntley B. J., Willis C. K., Smith G. F. & Siebert S. J.** 2002. The history and success of SABONET in southern Africa. Pp. 231–246 in: Baijnath, H. & Singh, Y. (eds.), *Rebirth of Science Vin Africa: A Shared Vision for Life and Environmental Sciences*. Umdaus Press, Hatfield.
- Klopper R. R., Smith G. F. & Chikuni, A. C.** 2001. The Global Taxonomy Initiative: Documenting the biodiversity of Africa. *Strelitzia* 12: 1–202.
- Klopper R. R., Smith G. F. & Van Rooy J.** 2002. The biodiversity of Africa. Pp. 60–86 in: Baijnath, H. & Singh, Y. (eds.), *Rebirth of Science Vin Africa: A Shared Vision for Life and Environmental Sciences*. X. Umdaus Press, Hatfield.
- Smith G. F. & Willis C. K.** (eds). 1999. *Index Herbariorum: Southern African Supplement* (2nd edition). SABONET Report Series No. 8. SABONET, Pretoria.
- Siebert S. J., Mössmer M., Rukazhanga-Noko N. & Haasbroek C.** 2001. Has SABONET developed the regional botanical expertise it promised? *SABONET News* 6: 74–83.
- Siebert S. J., Bandeira S. O., Burrows J. E. & Winter P. J. D.** 2002. SABONET Southern Mozambique Expedition 2001. *SABONET News* 7: 6–18.
- Steenkamp Y. & Smith G. F.** 2002. *Addressing the Needs of the Users of Botanical Information*. SABONET Report Series No. 15. SABONET, Pretoria.
- The World Bank.** 2002. *The World Bank and Agenda 21*. The World Bank, Washington D.C.
- Timberlake J. & Paton A.** 2001. SABONET Midterm Review Report Back. *SABONET News* 6: 5–13.
- Willis C. K., Burrows J. E. & Winter P. J. D.** 2000. SABONET Nyika Expedition 2000. *SABONET News* 5: 5–14.
- Willis C. K. & Huntley B. J.** 2001. SABONET: Developing capacity within southern Africa's herbaria and botanical gardens. *Systematics and Geography of Plants* 71: 247–258.