

CURRICULUM VITAE

1.0 PERSONAL PARTICULARS

Full Name: OPHA PAULINE DUBE

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1.1 PROFESSIONAL QUALIFICATIONS

- 2000 PhD – Human Induced change in the Rangelands of Botswana, University of Queensland, Australia.
- 1989 Mphil. – Applied Remote Sensing, Cranfield Institute of Technology – UK.
- 1987 Post Graduate Diploma in Rural Land Ecology and Remote Sensing-ITC, the Netherlands.
- 1985 Post Graduate Diploma in Education, UB.
- 1984 BA Degree, Environmental Science and History, University of Botswana (UB).
- 1979 Cambridge School Certificate – Selibe Phikwe Secondary School, Botswana
- 1974 Standard Seven Certificate – Tlhalogang Primary school, Botswana

Short Courses

- 25th – 28th June, 2002 Training course on ‘Spatial and Ecosystem Modeling’, Department of Environmental Science, University of Botswana, Gaborone.
- May – June 1990 UN Training course: “Remote Sensing Education for Educators. Department of Geography, Stockholm University

1.2 POSITIONS HELD

University of Botswana:

Research Assistant:

- 1982 Institute of Adult Education- Francistown UB
- 1984 National Institute of Development Research and Documentation (NIR), UB,

Academic - Department of Environmental Science:

1985 - 1988 Staff Development Fellow

1989 – 2005 Lecturer

2006 to date Senior lecturer

Overview of Courses Taught: University of Botswana

Diploma

CGD222- Remote Sensing for Civil Engineering students

Undergraduate

ENV 213 - Introduction to Physical Environment

ENV330 – Remote Sensing for Environmental Sciences

ENV 314- Supervisor: Project – proposal development

ENV 400- Supervisor: Project Data Collection, analysis and Reporting

ENV403 – Gender and Environment

ENV447- Human induced Environmental Hazards and Disasters

ENV456 – Remote Sensing for Social Sciences

ENV483 – Advanced Map Work and Air Photo Interpretation

Post Graduate – Msc.

ENV 611- Introduction to Environmental Information Systems

ENV620 – Land use Planning and geo-spatial information techniques

ENV610–Integrated Environmental Analysis and Management
(Depletion/Desertification, Impacts of Climate Change and Biodiversity)

ENV632 – Remote Sensing

ENV700 – Msc Research Proposal development (Now phased out)

Supervised MSc and Mphi/PhD students: Recent projects involved Land cover change, Fire, and characterising wood vegetation determinants in rangelands.

3.0 RESEARCH AND PUBLICATIONS

3.1 Refereed publications

3.1.1 Journal articles:

Roy, D., Frost, P., Justice, C., Landmann, T., Le Roux, J., Gumbo, K., Makungwa, S., Dunham, K., Du Toit, R., Mhwandagara, K., Zacarias, A., Tacheba, B., **Dube, O. P**, Pereira, J., Mushove, P., Morisette, J., Santhana Vannan, S., Davies, D., (2005). The Southern Africa Fire Network (SAFNet) regional burned area product validation protocol. International Journal of Remote Sensing Vol. 26 (19): 4265–4292.

Dube, O. P., (2003). Impacts Of Climate Change, Vulnerability And Adaptation Options: Exploring The Case For Botswana Through Southern Africa. A Review. *Botswana Notes and Records Vol 35:147-168*.

Dube, O. P. and Pickup G., (2001). Effects of rainfall variability and communal and semi-commercial grazing on land cover in Southern Africa rangelands. *Climate Research 17: 195-208*.

Dube, O. P., (1998). Monitoring vegetation cover over diverse landscape types in semi-arid southeastern Botswana. *Geocarto International. 13(2): 43-51*.

Ringrose, S., Matheson W., and Dube O. P., (1987). The use of Remote Sensing techniques to determine the density of woody vegetation in Southeast Botswana Kalahari. *Forestry Association of Botswana Journal, 1986-87:60-71*

3.1.2 Refereed Non-journal articles:

Mulugeta, G., Ayonghe, S., Daby, D., **Dube O. P.**, Gudyanga, F., Lucio, F. and Durrheim, R. (In press). Natural And Human-Induced Environmental Hazards And Disasters In Sub-Saharan Africa. Science Plan. International Council for Science (ICSU) Regional Office for Africa, Pretoria.

Dube, O. P. (2005). SAFNet. A collaborative effort towards developing capacity for operational fire monitoring and management systems in southern Africa. *AIACC Working Paper No. 11. (AIACC Project No. AF42). (AIACC Working Papers is an on-line, peer-reviewed publication of the AIACC project-http://www.aiaccproject.org/working_papers/working_papers.html)*

Drimie S., **Dube, P.** Fabricius, C., Ingram, J. Mano, R., Mataya, C., Muchero, M., Vhurumuku, T. (In Press). The Global Environmental Change and Food Systems (GECAFS) Southern Africa Science Plan and Implementation Strategy. GECAFS (www.gecafs.org) NERC Centre for Ecology and Hydrology , UK. 31Pp.

3.2 Books

Dube, O. P., (ed) (In Pres.) Africa Environment Outlook Case Studies: Impacts of Fires on the Environment - Botswana, Tanzania, Zimbabwe, Namibia and Senegal. UNEP Division of Early Warning Assessment (DEWA) - Africa Environmental Outlook Report II (AEO-II) publications. ISBN: 92-807-2634-X [SARDC- Harare. Job Nb: EW/0737/NA]. [Reviewed at the 4th SAFNet meeting and through UNEP/DEWA]

Dube, O. P., (ed) In press. Towards Meeting Fire Management Challenges in Southern Africa. Proceedings of the 5th SAFNet Workshop. UNEP Division of Early Warning Assessment (DEWA). Africa Environmental Outlook Report II (AEO-2). UNEP/SAFNet publication. CD ROM Publication. ISBN: 99912-572-5-X

Dube, O. P., Sekhwela M.B.M. and Mazonde I. (eds) (1992). Proceedings of the NIR workshop on Research Award Schemes; A Strategy for Developing National Research Capacity. *National Institute of Research and Documentation, University of Botswana*. August 1992. Gaborone. 105p.

3.3 Chapters in Books

4th IPCC Assessment (**ongoing**). **Lead Author since 2004 (with other Lead Authors)** in Chapter 4 on Ecosystems

Dube, O. P. and Sekhwela M. B. M., (Submitted) Community Adaptation Strategies In The Limpopo Basin Part Of Botswana: Lessons For The Future". A chapter for the ongoing AIACC Adaptation synthesis book. [*The chapter has undergone the first review round and was accepted on that basis – it is currently under the 2nd review process*]

(Ongoing with over 25 other AIACC Authors). Adaptation Synthesis based on findings from the UNEP/GEF/START/TWAS AIACC projects in Africa and Asia-Pacific regions. [*The focus of my contribution is this synthesis is on ecosystems and community adaptation strategies in Botswana*]

Dube, O. P and Mafoko J.G., (In Press). Botswana Fire Case Study. In Dube O. P. (ed), Africa Environment Outlook Case Studies: Impacts of Fires on the Environment - Botswana, Tanzania, Zimbabwe, Namibia and Senegal. UNEP Division of Early Warning Assessment (DEWA) - Africa Environmental Outlook Report II (AEO-II) publications. ISBN: 92-807-2634-X. [SARDC- Harare. Job Nb: DEW/0737/NA]

Lead author (among 12 other Lead Authors) (2001). Chapter 10, Africa. In McCarthy, J. J., Canziani, O. F., Leary, N. A., Dokken, D. J. and White, K. S. (Eds) Climate Change 2001: Impacts, Adaptation and vulnerability. 3rd IPCC WGII. *Cambridge University Press*. 487-531pp. ISBN 0521 80768 9. [My focus area was on Desertification] [*IPCC documents are refereed 3 x before a final document is produced*]

Dube, O. P. and Kwerepe R., (2000). Human induced change in the Kgalagadi Sands: Beyond the year 2000. In Ringrose S. and Chanda R. (Eds). Towards sustainable Management in the Kalahari region - Some essential background and critical issues. *University of Botswana*. Gaborone 244-258pp. ISBN 99912-2-146-8.

Dube, O. P., (1995). Monitoring land degradation in semi-arid regions using high-resolution satellite data. In J.M.O. Scurlock et al., (Eds), Natural vegetation as a resource: A regional remote Sensing workbook for East and Southern Africa. *Commonwealth Science Council, London*. 119-128pp.

Dube, O. P., (1992). Notes on Ecology and Society in Southern Africa. In A. Erele, (ed), African Education and Identity. *HANS ZELL Publishers, London*. ISBN 0-905450-81-7. 358-369pp.

3.4 Conference/ Workshop Proceedings

3.4.1 Papers in published proceedings:

Dube, O. P., (In Press). Climate Change In Southern Africa: Implications for the Agricultural Systems of Botswana. Proceedings of the Botswana Agricultural Research Information Network (BARIN). May 2005. National Veterinary Laboratory, Gaborone.

Dube, O. P., (In Press). SAFNet Contribution to Fire Early Warning and Policy. In Dube O. P. (ed), Towards Meeting Fire Management Challenges in Southern Africa. Proceedings of the 5th SAFNet Workshop. UNEP Division of Early Warning Assessment (DEWA). Africa Environmental Outlook Report II (AEO-2). UNEP/SAFNet publication. CD ROM *Publication. ISBN: 99912-572-5-X*

Dube, O. P., (In Press). SAFNet Role in Africa Environmental Outlook II Report. In Dube O. P. (ed). Towards Meeting Fire Management Challenges in Southern Africa. Proceedings of the 5th SAFNet Workshop. UNEP Division of Early Warning Assessment (DEWA). Africa Environmental Outlook Report II (AEO-2). UNEP/SAFNet publication. CDROM *Publication. ISBN: 99912-572-5-X*

Parida, B.P., Moalafhi D. B. and Dube O.P., (2005). Estimation of Likely Impact of Climate Variability on Runoff Coefficients from Limpopo Basin using Artificial Neural Network (ANN). Proceedings of International Conference on Monitoring, Prediction and Mitigation of Water-Related Disasters, Japan, pp. 443 - 449.

Dube, O. P., (2001). Remote Sensing, Climate Change and Land-use Impacts in Semi-Arid Lands of Southern Africa. In Scanning the Present and Resolving the Future. IGARSS 2001. 9-13 July University of New South Wales, Sydney. CD-ROM.

Dube, O. P., (2000). Standardising and Validating High Resolution Satellite Data in the Kalahari Rangelands of Africa. 28th International Symposium on Remote Sensing of Environment (ISRSE) and 3rd Symposium of the African Association of Remote Sensing of the Environment (AARSE). 27-31st March 2000. CapeTown. CD ROM.

Dube, O P., (1992). Research on Environmental and Natural Resources in Botswana and its Organisation. The role of Young Batswana Researchers and the Future. In O. P. Dube et al, (eds). Proceedings of the NIR workshop on Research Award Schemes; A Strategy for Developing National Research Capacity. National Institute of research and documentation, University of Botswana. August 1992. Gaborone.

Dube, O. P., (1992). Women and Environmental Management in Botswana. In Conference on Population and Environment in Africa. The Union for African Population Studies. September 1992. Gaborone. 462-475p.

3.4.2 Unpublished Conference/ Workshop Papers and Reports

Dube, O. P., (2003). Developing Capacity for Operational Fire Monitoring and Management Systems in Southern Africa. The Third Meeting of the Southern Africa Fire Network (SAFNet), 29th July to 1st August 2002, University of Botswana. A Report for The GEF NGO Small Grants Programme. 18p

Tacheba B., **Dube, O. P.**, Roy D., Justice C. O., Muhwandagara K., Frost P., Makungwa S., Gumbo K., Leroux J., Landmann T. and Mushove P., (2001). Southern Africa Fire Network (SAFNet) of the Global Observation of Forestry Cover (GOFC): Developing Capacity for Operational Fire Monitoring and Management Systems in Southern Africa. 5th AFRICAGIS Conference and Exhibition, 5-9 November 2001. Nairobi-Kenya. 19p.

Dube, O. P., (2001). Climate Change Related Research Activities at the University of Botswana. First Meeting of the GEF/SGP Climate Change Networking Group, UNDP 17th September 2001, Gaborone. 7p.

Dube, O. P. (2000). Adverse effects of climate change and adaptation needs in Southern Africa. First SADC meeting on Climate Change: Preparing for UNFCCC COP6. 18-20 October. Gaborone. 5 pages

Dube O. P., Sekhwela M.B.M. and Mulalu M., (1993). Satellite Remote Sensing for Monitoring and Management of Environmental Resources for Sustainable Development in Africa: Some examples from Botswana. UN Regional Conference on Space Technology for Sustainable Development in Africa. 25-29th October, Dakar, Senegal. 24p.

3.5 MONOGRAPHS

Dube, O. P. and Moleele. N. M., (2004). Awareness Workshops on Impacts of Climate Change on the Livestock Sector for Serorome Valley Farmers Association (SVFA). A Report for GEF Small Grants Programme: Pilot Project on Climate Change - Conducted through AIACC UNEP/GEF/START/TWAS Limpopo Basin Climate Change Project AF42 Project- University of Botswana. 14pages.

Dube, O. P., (1995). Monitoring Vegetation and Soil Degradation in Botswana. A Report for the Australian Center for International Agricultural Research. 52p

Sekhwela, M. B. M. and Dube, O. P., (1991).Desertification in the Ngamiland Communal First Development Area (CFDA). NIR working paper No. 55. UB Gaborone. 49p.

3.6 Scientific Newsletter article

Dube, O. P. and Moswete, N., (2003). Tourism: Searching for adaptation options to climate change in Southern Africa. *AIACC Notes Vol. 2 Issue 1*.

3.7 Abstracts

3.7.1 Reviewed Abstracts:

Dube, O. P., (2004) Impacts of climate change, vulnerability and adaptation: A case of Botswana within Southern Africa. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Parida, B.P., Kgaodi D. and Dube O.P., (2004). Climate variability in Limpopo Basin & its impact on runoff. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Sekhwela, M.B.M. Dube, O.P. and Dithogo M.K., (2004). Natural forest product availability and climate variability: The case of Phane caterpillar in the Limpopo Basin Botswana. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Moswete, N.N., Dube, O. P. and Maiketso S.M., (2004). Adaptation Strategies to Climate Change in Botswana: The case study for Cultural Heritage Tourism in the Greater Limpopo Basin - Eastern Botswana. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Sekhwela, M.B.M. Dithogo, M.K. and Dube, O.P., (2004). Production ecology & management prospects of Phane caterpillar in the Limpopo Basin Botswana. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Dube, O. P. Mafoko, J., Kwerepe, R., (2004). Status Of Fire Management In Botswana: Looking Into The Future. In M.B.M. Sekhwela et al., (2004). Book of Abstracts. Botswana Environmental and Natural Resources Observation Network (BENRON) National Science Conference on "Application of Science and technology in Natural Resource Monitoring". 13-15 July 2004. University of Botswana, Gaborone.

Dube, O. P., (1999). Validating Spectral Vegetation Measures in the Okavango Delta Northwest Botswana. Abstract H51B-11 0830h Poster. 61-7-336-56455. In AGU 1999 Fall Meeting. Published as a supplement to EOS, Transactions. AGU Vol. 80. No. 46, F453. November 1999.

Dube, O. P. and Bastin, G., (1996). Land Degradation in Semi-arid lands of Southern Africa. Extended Abstract. In Conference on Application of remotely sensed data and Geographic Information Systems in Environmental and Natural Resource Assessment in Africa. March 1996, Harare, Zimbabwe. 30-35pp.

Dube. O. P., (1996). Monitoring vegetation and soil degradation in Botswana. Workshop on Research Training for Sustainable Environmental Resource Utilisation. NIR. Gaborone. 27-29 May 1996.

3.9.3 Others Works:

Dube O. P. (2005) Global Environmental Change and Food Systems in Africa. A submitted proposal (abstract) for a session under Global Environmental Change and Food Systems (GECAPS) at the coming ESSP Open Science Conference on Global Environmental Change: Regional Challenges to be held in November 2006, Beijing, China

Dube, O. P. (2005). A Strategy for Networking. A report produced for UNEP Division of Early Warning Assessment. Nairobi Office . 6 pages

Dube, O. P., (2005). A SAFNet Report for the Global Observations of Forest and Land Cover Dynamics (GOFC-GOLD) Fire Implementation Team Meeting. Canadian Space Agency, Montréal, Canada 7 to 9th February, 2005. 4Pages

Frost, P., Dube, O. P. et al, (and other members of SAFNet). (2003). Statement By The Southern African Fire Network (SAFNet) On The Use And Control Of Fire In Africa. The statement was read at the International Wildland Fire Summit Sydney, Australia, 8th October 2003. 4p

Dube O. P., (ed). (2003). Promoting Global Environmental Research in Botswana and in the Southern African Region: The Botswana Global Change Committee (BGCC). A Synopsis Prepared for the International Geo-sphere Biosphere Program Third Congress on Connectivities in the Earth System. Banff, Canada, 19-24 June 2003. 7 Pages

Dube. O. P., (2003). The use of remote sensing to support fire management in southern Africa. A synopsis of the Fourth SAFNet Workshop held at Kruger National Park, 17 - 22 August 2003. A Report for the Global Systems for Analysis Research and Training (START). 5pages.

Dube O. P., (2003). Mapping the Spatial Extent of Mophane Woodland and Phane Caterpillar Occurrence. Component 2: In Sekhwela M. B. M. (ed). Phane and Mophane

Woodland Research Project (BOT/98/G52/2016). The GEF NGO Small Grants Programme Progress Report.

Dube, O. P., (2001). Southern Africa Fire Network of the Global Observation of Forestry Cover on Developing Capacity for Operational Fire Monitoring and Management Systems in Southern Africa. A Concept paper incorporated into the USAID funded SADC Environmental Information for Resource Management Program (E-INFORM). 3p.

4.0 AWARDED RESEARCH GRANTS

4.1 Research Grants

2006: GOFC/GOLD and START: Support the 6th SAFNet meeting: ***\$10 000.00USD***

2005: GOFC/GOLD and START: Support coordination of SAFNet: ***\$10 000.00USD***

2004-2005: UNEP/DEWA: Fund SAFNet 4th meeting plus publication of proceedings and production of fire case studies over Africa. Supported scientist working on fire from 14 SADC countries and also from East and West Africa: ***\$30 000.00USD***

2003: UN Office of Outer Space (UN OOSA) - Travel grant for 5 participants to the 3rd SAFNet workshop at Kruger National Park August 2003: ***\$5000.00USD***

2003: UNEP/GEF/START/TWAS- Lead author for a proposal developed with other Limpopo Climate Change Colleagues on: "Stakeholder Information Exchange and Education on Climate Change". ***\$15 000.00USD***

2002-to date: UNEP/GEF/START/TWAS: Assessment of Impacts of and Adaptations to Climate Change in Multiple Regions and Sectors (AIACC). Supports 10 UB staff and several students under AF42 Project. ***\$195 000.00 USD***

2002: UNDP GEF Small Grant Program for funding the 3rd Southern Africa Fire Meeting in Gaborone 2002: ***\$ 10 000USD***

2001: NASA project on Validation of MODIS satellite data fire products – Continues to Support students in Environmental Science. ***\$5000.00USD***

1995 -1996: EU UB Manpower Development Fund – Supported PhD field survey: ***\$5000.00***

1994 -1997: ACIAR (Project S010001) through UB, University of Queensland and CSIRO – ACIAR project on Land Degradation in Botswana– West of the Okavango Delta: ***\$77 000.00 AUD***

988 -1989: SAREC - Through UB/Stockholm collaboration Research Grant - supported

Mphil. field survey and materials on Monitoring Range lands in Botswana – Molepolole area: **\$5000.00USD**

5.0 Ongoing Research Activities

1. Integrating Satellite Based Information With Socio-Economic Information To Characterising Fire Activity Over The Limpopo Basin. *Funded under AIACC-AF42 project.*
 2. Assessing future climate trends in Botswana using station data and outputs from climate change Global Circulation Models. *Funded under AIACC-AF42 project.*
 3. Assessing potential community based adaptation strategies to future climate change over the Limpopo Basin. *Funded under AIACC-AF42 project.*
 4. Climate Change, Mophane woodland and Phane caterpillar – in collaboration with Dr M. Ditlhogo and Dr M.B.M. Sekhwela. *Funded under AIACC-AF42 project and also from GEF-Small Grant Program.*
 5. Developing the Global Environmental Change and Food Systems (GECAFs) Regional science plan for Southern Africa. Conducted under John Ingram - NERC Centre for Ecology and Hydrology, UK with 5 other scientists from Zimbabwe, South Africa and Malawi and representatives from SADC and NEPAD
 6. Compiling the final Technical report on the AIACC-AF42 Limpopo Climate Change Project – integrating outputs form other 9 researchers.
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6.0 SERVICE

6.1 Universities

6.1.1 Service to other Universities

1992-1993: Local co-ordinator - School for International Training College. College Semester Abroad Programme. Vermont, USA .

6.1.2 Service to University of Botswana:

2005: Member of the Chemicals and Hazardous Materials Subcommittee (CHMS)

2004 to date: Member of the task force dealing with Teaching, Research and Supervisory Matters associated with HOORC in general and the Headstreams Project in particular.

2004: Represented the Depart of Env. Sc. at the SIMDAS Headstreams Project

- workshop in Maun, May, 2004.
- 2002: Chair Botswana Global Change Committee (BGCC) under which several Research Projects have and still executed as noted below.
- 2001: Involved in the EDDI Government of USA funded project part on Women and Science
- 2001 to date: Member of the Environmental Science – GIS and Remote Sensing - Education for Democracy and Development Initiative (EDDI) implementation team
- 2000 to date: Member of Computer Committee
- 2000 to date: Responsible for Department Research Laboratory.
- 2000: Represented UB at workshop on “Towards Establishing Collaborative Efforts Among The 4 Southern Africa Universities And The University Of Virginia In USA”. The workshop involved the Universities of Botswana, (UB), Witwatersrand (Wits), Eduard Mondlana (UEM) and Venda and was convened by the University of Virginia (UVA). 6-10th November 2000.
- 1993 -1994: Founding member and first secretary of Botswana Global Change Committee (BGCC)
- 1985 - 1994 & 2000 to date: Board member - Department of Environmental Science
- 1985 - 1994 & 2000 to date: Board member - Faculty of Science

6.2 Professional Services

6.2.1 Local - Botswana Government

- 2004: Member of the Reference Group for the consultancy to Identify And Assess Technology Needs To Meet The UNFCCC In Botswana (BOT95/G31) commissioned by UNDP and Ministry of Env. Wildlife & Tourism.
- 2004: Member of the Reference Committee for the UNDP consultancy on "Development of GEF Enabling Activities Project Document on National Capacity Self Assessment, Botswana" to meet the 3 UN Conventions: Facilitated by the National Conservation Strategy Agency.
- 2004: Sourced funding and provided leadership in running information dissemination workshops on Impacts of Climate Change, Vulnerability and Adaptation Capacity with 9 other members of the AIACC-AF42 research team as follows:
- 6th February 2004: Government extension Officers - Masunga
 - 26th February 2004: Government extension Officers Bobonong
- 2003 to date: Representative of the Ministry of Education in the National Climate Change Committee – Currently assisting with preparations for the 2nd National Communication report to the UNFCCC.
- 2002: Member of the Botswana Government delegation appointed by the Office of the President for preparations of Botswana deliberations at the WSSD – Johannesburg -September 2002.
- 1992 –1994 & 2001 to 2004: Represented UB at the Government of Botswana National Conservation Strategy Advisory Board.

- 1992 -1994: Member of the Reference Group-UN International Desertification Convention-Botswana Case Study – Ministry of Agriculture.
- 1990- 1993: Member of the GIS User Group: August 1990: Guest lecturer-Use of SPOT 1991 XS Vegetation Indices to Map Range Vegetation. SADCC/FAO workshop for DLUPU members on Application of Remote Sensing for Early warning. Gaborone.
- 1990 - 1991: Member of the Reference Group for Woodfuel Inventory and Monitoring Programme- Consultancy for the Energy Masterplan.
- 1988- 1993: Member of the Botswana National Committee on Cartography and Remote Sensing.

6.2.2 Local - NGOs and Associations:

- 2004-2005: Engaged the Environmental Heritage Foundation NGO in climate change Awareness campaign at the community level in the North East District
- 2002-to date: Engaged the Kalahari Conservation Society as the Southern Africa Fire Network (SAFNet) local contact point.
- 1990 -1993: Founding member of the Environmental Watch Botswana NGO.
- 1990-1993: Founding member of Emang Basadi - Botswana Women Action Group (Documented in R. Motsete- The Search for Justice and in L. Molema et al. Women Writings).
- June 1988: Guest speaker - Women and Agriculture in Southern Africa - the Farmers Third World Network Workshop, UK.
- 1985 -1986: UB representative at the Botswana Society NGO.

6.2.4 International/Research linked Professional Services:

June 2005 to date: Member of the planning committee for the African Network For Global Environmental Change Research Workshop- 22-24 September 2005 in Nairobi, Kenya.

February 2002 to date: Principal Investigator of the UNEP/GEF/START/TWAS AIACC AF42 Limpopo Climate Change project

2000 to date: Co-ordinator of the Southern Africa Fire Research Network (SAFNet) (<http://www.safnet.net>)

December, 1995: Part of an international team of scientist who participated in setting up the science framework for Miombo Network under START. Zomba, Malawi. (See www.miombo.org)

July 1994: Facilitated with others the START Regional Workshop - Global Change in Southern, Central and Eastern Africa, held at UB, Gaborone.

1993-1994: Contributed in setting up the System for Analysis Research and Training (START) Africa Regional Research Networks. Since then START has facilitated several research and training activities and funded several students and staff in Botswana.

1993-1995: Representative of the START Southern Africa Committee at the START Regional Committee for North Africa.

June 1993: Participated in formulating the SAFARI Regional Research Agenda: Africa Savannas and Global Atmosphere. Victoria Falls. And played an active role in guiding the implementation of SAFARI 2000 activity.

1992-1994: Established with the help of the then Head of Department of Environ. Sc and the Director of NIR the Botswana Global Change Committee (BGCC) and was the first secretary of BGCC (1992-1994). BGCC is the umbrella framework of the international links and multidisciplinary research in the university of Botswana .mentioned. The influence of BGCC extends to Government Departments such as the Meteorological Services and the Range and Forestry Division.

1992-1994: Initiated (with others) the UB GCTE\Kalahari Transect Science Group and later proposed and facilitated the START\BGCC Kalahari Transect Regional Scientific meeting, Gaborone, June 1998.

1990-1992: Remote Sensing expert - African Energy Policy Research Network (AFREPREN) study on investigating the relationship between biomass classes and SPOT and Landsat TM digital data in the Molepolole hills.

REFERENCES

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