

# CURRICULUM VITAE: ZEPHANIAH PHIRI MASEKO

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Date of Birth	February 2 <sup>nd</sup> , 1927, Zvishavane
Sex	Male
Marital Status	Married to Constance Phiri
Nationality	Zimbabwean
I.D. Number	29-0501437 F67

## Career Highlights

- Mr. Phiri was educated at Dadaya Mission, for which his father, Amon Phiri (“Bvuma”) was a renowned evangelist who played a lead role under Sir Garfield Todd in the Church of Christ Mission after its Africanization in 1938. Mr. Phiri himself played a leadership role in the Church in the 1960s and 1970s, including in establishing Makiwa Church near his home.
- Mr. Phiri’s early career as a fireman on the railways was cut short by his detention in the early 1960s at Gonakudzingwa for his union and other political activities. Following his release in the mid-1960s he was black-listed from formal employment by the Rhodesian Front Government.
- Forced to depend upon a small piece of poor land on the edge of a vlei near Msipane in the Runde Communal land, Mr. Phiri experimented with wells, ponds and other water management systems from the late 1960s until Independence. He started with securing the infiltration of water running from the ruware (rock outcrop) behind his home, and ended with a productive farm on which he managed to harvest even through the 1972-73 drought. Arrested three times for “farming a water-way” the magistrate eventually demanded to see Mr. Phiri’s land, ultimately ruling against the Government’s L.D.O. (Land Development Officer) and granting Mr. Phiri resource rights to use his conservation farming in his wetland. In 1973 a more progressive L.D.O. brought local farmers to see his drought-beating methods.
- In 1973 Mr. Phiri opened his first pond (he was to expand it in 1987), having discovered that vlei hydrology was not the “sponge” of Rhodesian hydrologists, but that bands of clay brought water to the surface and these could be used to make dam walls that prevented downstream water loss when it was abundant. Ponds enabled holding more water in the vlei, without water-logging the soils. In the late 1970s he shifted from pumping water from his wells for micro-irrigation to using simple pumps (including later a hand-made donkey pump) to pump water from his pond into furrows (eventually cement lined) that fed his irrigated area.

- As the Liberation War expanded he was again detained under house arrest by the Rhodesian authorities in 1976 and severely tortured. His tribulations continued until the end of war, with a long period in leg-irons. He never regained his hearing in one ear, but physiotherapy improved the use of his leg.
- After Independence his farm became the focus of much interest by local farmer groups and NGOs, including because of the involvement of Ms. Sithembiso Nyoni, then with Oxfam-UK and ORAP, now the Hon. Minister for Medium and Small Enterprises. In 1983 he opened his second dam and in 1998 his third dam (to catch storm water). By 1999 these dams had a storage capacity of approximately 1.5 million litres. Mr. Phiri continued to diversify his homestead production system with extensive orchards, including of mango and banana, the sale of reeds for basket making, the adoption of bees, and the development of indigenous permacultural techniques to improve soil and protect areas from run-off.
- From 1982-1986 he served as a Community Liaison Officer for the Lutheran World Federation water program in the Zvishavane and Mberengwa region. The focus was on protecting wells and on small concrete dams in seasonal streams. Working closely with the District Development Fund and local councilors this revolutionized water and sanitation in the area after Independence.
- Still active on his land he founded the Vulindhlebe Soil and Water Conservation Project in 1984 and helped many other local gardening groups.
- From 1986 to 1988 Dr. K.B. Wilson invited him to join the research team of the University of London/University of Zimbabwe agricultural ecology study in Mazvihwa (Zvishavane) with Mr. Mathou Chakavanda, Mr. Johnson Madyakuseni, Dr. B.B. Mukamuri, Mr. Abraham Mawere Ndhlovu, Dr. Ian Scoones, and others. Mr. Phiri was responsible for action research around soil and water management and again in collaboration with DDF, he assisted Mazvihwans to sink wells, to build more small dams and to improve gardening. His studies also transformed the research team's understanding of the hydrology of these watersheds and their wetlands.
- Stimulated by the experiments with sand filtration using concrete rings, Mr. Phiri discovered in 1987 the concept of "Phiri pits" – holes in contour trenches where water accumulates designed to drive water infiltration deep into the soils up-slope to feed down slope fields later in the season. During the 1980s and 1990s he placed Phiri pits across his land. Efforts to replicate this system were widespread in the region, the most well-known being by Dr. Kuda Murwira and Intermediate Technology Development Group (ITDG) in Chivi.
- He founded the Zvishavane Water Project (ZWP) in 1988 and served as its Director until his retirement in 1996. One of the country's first indigenous NGOs, ZWP secured support from many local and international donors and played a major role in Zvishavane and neighbouring districts with the provision of water for domestic and agricultural uses. In addition Mr. Phiri

found opportunity to help some groups of vleis farmers dead-level contour their fields (so that water would no longer spill from their contour ridges, but instead infiltrate the soil) and develop them more intensively, including in Madzoke valley in Mazvihwa in 1996.

- Meanwhile Mr. Phiri continued to receive 25-30 visitors a month to his farm. Based upon analysis of his Visitor's Book, Mr. Phiri has officially received close to 10,000 visitors over the last thirty years. These visitors included people from every Government Department, research station, university, district in Zimbabwe and thirty different NGOs; as well as people from 14 African countries and 9 other countries in Asia, Europe and North and South America. The visitors included thousands of farmers who came on their own or with local NGOs, and AGRITEX/AREX officers and spread his ideas, and especially his faith in farmer innovation and responsibility.
- During the 1990s Mr. Phiri transformed his contour ridges from the standard Rhodesian one-in-eighteen gradient to dead level to prevent them shedding water and causing erosion in the storm drains. He shifted his farm away from fertilizer use and developed extensive mulch systems. With this he transformed heavy clays into fertile loams that no longer alternated between water logging and hard-cracking. He developed an elaborate system of deep trenches that in a self-regulating fashion with over-flow pipes salvaged from local mines serve to concentrate water in the core area when it is dry; distribute it to an extended agricultural heartland area of the farm when wet; and yet return water in flood conditions back into the core where it can best be handled under extreme conditions. In the 2000s these trenches provided an additional 180,000 litres of permanent storage capacity and 80,000 litres of temporary capacity, but more than this they transformed the underlying water table enabling Mr. Phiri to harvest all year round, in a core 1ha area whether or not there was drought.
- Mr. Phiri's farming systems rely upon diversity and increase diversity. A study in 2009-10 found he was growing seventy five different crops on the land. A study in 1999 in just the homestead area (not the main field) found 149 trees of 42 species, including indigenous and exotic species; by 2010 that had increased to 175 trees of 55 species, of which 24 were fruit tree species. Bird numbers and diversity were estimated ten times higher than surrounding areas by the 2010s.
- Receiving international awards from Ashoka and National Geographic (see below), Mr. Phiri continues to offer farming advice to all who ask from his retirement in 1996 to this date.
- Recognized as a treasure by his District and Province and receiving his Lifetime Achievement Award in 2010 was linked to an intensification of local training and extension efforts especially in drought-struck Mazvihwa, where he had worked in the 1980s and 1990s. The Muonde Trust from Mazvihwa now works with Mr. Phiri to train and inspire dozens of local farmer leaders, mostly women, to transform agricultural practices in Mazvihwa and beyond. In the first year of Muonde Trust's operation, and with the blessing and support of AREX, some forty small dams were developed and one hundred farmers pegged new dead-level contours.

- At his Lifetime Achievement Award in 2010 he invited researchers from the universities to his land “to study all the results of his fifty years of research, except those he had already eaten”.
- Proposed at his Lifetime Achievement Award event, the Phiri Award for Farm & Food Innovators Trust was launched in 2013 under the chairmanship of Dr. Mandivamba Rukuni and other leading figures in the sustainable agriculture field in Zimbabwe to offer an annual award for indigenous innovation among Zimbabwean farmers. The first awards will be given in October 2014.

### **Domestic and International Awards**

#### **Ashoka Fellow: Awarded for his work with planting water, 1997-2002**

Their website explains their innovation awards provided as follows: *“Ashoka Fellows are leading social entrepreneurs who we recognize to have innovative solutions to social problems and the potential to change patterns across society. They demonstrate unrivaled commitment to bold new ideas and prove that compassion, creativity, and collaboration are tremendous forces for change. Ashoka Fellows work in over 70 countries around the globe in every area of human need.”*

See <https://www.ashoka.org/fellows>

#### **National Geographic Society/Buffett Award for Leadership in African Conservation, 2006**

Underwritten by Mr. Howard G. Buffett who says *“The individuals that hold the front line for conservation often go unrecognized while making great personal sacrifices. This award was established to motivate and support these great conservationists.”*

See: <http://www.nationalgeographic.com/explorers/buffett/>

#### **Lifetime Achievement Award, 2010**

*Produced by The Friends of Mr. Phiri, and presented at the University of Zimbabwe with Dr. B.B. Mukamuri (Centre for Applied Social Sciences) and Dr. P.L. Mafongoya (Faculty of Agriculture), with a keynote address by Dr. K.B. Wilson (The Christensen Fund, USA), in the presence of leaders from government, research and NGO communities, with commendations from far and wide, including the Secretary General of the United Nations Environment Program (Mr. Achim Steiner), the Charles Darwin Foundation in the Galapagos and many others.*

See: <http://www.muonde.org/phiri-award/>

## **International Travel**

Mr. Maseko has been invited to visit and speak all over Southern and Eastern Africa around the issues of land and water management. He has traveled twice to the United Kingdom (in 1988 and in 2001) where he met UK and EU officials to appeal for better policies for African farmers, and gave talks in locations as diverse as the University of Oxford, Oxfam-UK, the World Development Movement, the Britain Zimbabwe Society and at the HDRA Garden at Ryton near Birmingham.

## **Films About Mr. Phiri Maseko**

The first film about Mr. Phiri was made in 1989 by Dr. Dan Ticehurst. This film describes his farm and basic techniques and was one of the first video-for-development initiatives in Zimbabwe. It has been recovered and will shortly be made available to the public.

During the 2000s, Ms. Mary Witoshynsky, the author of his biography, prepared a screen play for a Hollywood drama about Mr. Phiri's life, and after meeting Mr. Danny Glover there was a period in which she negotiated with his production company about his playing Mr. Phiri. Although this was not to be at the time, the possibility of such a drama-documentary remains. Nigel Hulett of Granadilla Films (Harare) began but did not complete the film of a documentary about Mr. Phiri in the 2009-2010 period.

*The Rainwater Harvester. Mr Phiri's experience in Improving Dryland Management*, by Frank Loewen, 2013 (accessible at <http://www.muonde.org/2013/07/22/the-rainwater-harvester-mr-phiris-experience-in-improving-dryland-management-a-film-by-frank-loewen/>). This film describes Mr. Phiri (and related innovators) commitment to soil conservation and water harvesting.

*Renowned indigenous permaculturalist, Mr. Zephaniah Phiri from Zvishavane, describes the lack of rainfall in the semi-arid natural region four in Zimbabwe*, made by Robert Hickling and Moses Ndhlovu for Muonde Trust, <http://www.muonde.org/2013/07/09/renowned-indigenous-permaculturalist-mr-zephaniah-phiri-from-zvishavane-describes-the-lack-of-rainfall-in-the-semi-arid-natural-region-four-in-zimbabwe/> This film describes how Mr. Phiri captures storm water from his ruware and ensures its infiltration into his land

A series of films about Mr. Phiri and his innovations, crafted for use among farmers in Zimbabwe is currently being produced by Obrian Mudyiwenyama (Fine Line Media Trust) and Moses Ndhlovu (Muonde Trust) for 2014 and 2015 release.

## **Biographies of Mr. Zephaniah Phiri Maseko**

1. *The Water Harvester: episodes from the inspired life of Zephaniah Phiri*, by Mary Witoshynsky (Weaver Press, 2000). (In this book Mr. Phiri largely tells the story of his life in his own words.)

Reviews of *The Water Harvester* include:

- *The Mangalore & Bangalore Morning Daily*, 2001
  - “Former Detainee Transforms Arid Plot into Bountiful Harvest”, W. Chakanyuka, *Masvingo Star* 17-23 November, 2000
  - Ezekiel Makunike, review of *The Water Harvester* on the Weaver Press Site
  - *The New Agriculturalist* review (2001-2002)
  - “The Water Harvester” by Slow Food and Terra Madre
  - Stewart Musiwa “Water is Life” in *Jesuit Communications*, April 2008
  - *Spore Magazine* Vol 98 (April, 2002)
  - Grace Mutandwa, *The Financial Gazette*, November 02-08<sup>th</sup>, 2000
  - Michael Mobbs in the *Law Society Journal – The Law Society of New South Wales* (Vol. 40, No. 8, October 2002)
2. *Mr. Phiri’s Book of Life*, Edited by K.B. Wilson, 2010; published online at <http://www.muonde.org/2013/12/18/zephaniah-phiris-book-of-life/> (This biography gathers the available materials about Mr. Phiri and his innovations and was compiled for his Lifetime Achievement Award)

### **Extended References to Mr. Phiri’s Work in Academic Articles and Books**

Mr. Phiri’s agricultural innovations and contributions to Zimbabwe’s history have been extensively discussed in the academic literature. The following is a selection of academic articles that discuss his work in depth.

- “Farmer-based Research and Extension” by Z. Phiri Maseko, Ian Scoones and Ken Wilson, *ILEIA*, December 1988, Vol 4, No. 4
- “The Water-Harvesting Innovations of Mr. Phiri Maseko, Zimbabwe”, in the *International Sustainable Agriculture Extension Manual*, 1995
- *Save a Seed and Plant Water* (Abstract by Sasa Petejan) published by i/p/a press at <http://www.ljudmila.org/ipak/zwe-water/abstract.html>
- Course manual: *UNISA, Module 3: Sustainable Natural Resource Use*, Household Food Security UNISA/SAIDE/W.K. KELLOGG, pages 139-142
- “Making the Most of Spatial Variation” extract from *Hazards and Opportunities* by Ian Scoones, Zed Books, 1996

- *Beating Hunger: The Chivi experience: A community based approach to food security in Zimbabwe*, by Kuda Murwira et al., Intermediate Technology Publications, 2000
- For Mr. Phiri's contribution see also *The New Agriculturalist's Review of Beating Hunger: The Chivi experience: A community based approach to food security in Zimbabwe*, 2001
- *Influencing Policy Processes for Sustainable Livelihoods: strategies for change*, James Keeley (Institute for Development Studies, Brighton, 2001)
- "Listening: books from Zimbabwe", *Journal of Southern African Studies*, Vol 28(1), 2002 by Professor T.O. Ranger
- "Editorial viewpoint: making science and technology work for the poor", Ian Scoones, *World Review of Science, Technology and Development*, Vol 4, No 2-3, 2007
- "A Lifetime's Record of Innovation and Experimentation: Mr. Phiri's Water, Soil and Landscape Management Principles as Exemplified on His Own Land, (with a series of maps and diagrams)", Ken Wilson, in *Mr Phiri's Book of Life*, 2010

### **Training Manuals and Booklets/Materials**

Numerous training materials for farmer extension purposes have included reference to Mr. Phiri and his methods. These include:

- "Water Harvesting and Soil Conservation", Zvishavane Water Project, 1995
- "Sustainable Agriculture Extension Manual for Eastern and Southern Africa", International Institute for Rural Reconstruction, Nairobi, 1998
- "The Man Who Farms Water" Chapter One in *Rainwater Harvesting for Drylands and Beyond, Volume One*, by Brad Lancaster, Rainsource Press, 2006

The third of these manuals is much the most important guide to water harvesting worldwide, and it opens in Chapter One with an extended description of Mr. Phiri's principles and approach, crediting him as one of the global leaders in the field and the inspiration behind the author's work. Mr. Lancaster studied with Mr. Phiri in 1995 and again in 2013.

### **Internet, Development Agency and Newspaper Articles**

Mr. Phiri has been regularly featured in the Zimbabwean and international press. A sampling of such articles includes:

- "Beating the Drought", *Oxfam Project News Briefing*, November 1987
- "Beating the Drought: Zvishavane Water Resource Development and Management Project, Zimbabwe" from Oxfam's Move Against Poverty, 1987
- "The Miracle of Water", *Somerset County Gazette*, UK, June 24<sup>th</sup>, 1988

- “Doing Well on Six Acres” *The Dorset Evening Echo*, UK, Monday July 4th, 1988
- “An Old Man Like Me”, *Oxfam Progress Report*, July 1988
- The Z Pack: Zimbabwe, Zvishavane, Zephaniah Phiri, *Oxford Oxfam Group*, April 1991
- “Where No Water Goes to Waste”, *Sunday News*, Zimbabwe, January 29<sup>th</sup>, 1995, Sifanele Ndlovu
- “Commitment to Soil and Water: a lesson from Zimbabwe” by Yasmina Zaidman on *Changemakers.net*, March 2000
- “Zimbabwe’s Hope: in memory of Zephaniah Phiri Maseko” by Yasmina Zaidman, on *Changemakers.net*, March 2002
- “Zephania Phiri: from simple peasant farmer to number one national hunger fighter”, by Ezekiel Makunike, *Sunday Mirror*, Zimbabwe, October 3<sup>rd</sup> 2004
- “Zimbabwean Farmers Bag the Clouds”, by Emmanuel Koro, online at <http://www.onislam.net/english/health-and-science/nature/448338.html>
- Mr. Phiri’s National Geographic Society Radio Interview, Washington, D.C., November 6, 2006 online at <http://www.nationalgeographic.com/explorers/bios/zephaniah-maseko/>
- “A Visit to the Water Harvester”, *The Zimbabwean*, 14-20 December, 2006, Robin Palmer
- “Zephaniah Phiri Honoured with Lifetime Achievement Award” by Mary Witoshynsky, *Zimbabwe Review*, Issue 07/2, May 2007, Britain Zimbabwe Society
- “Lifetime Achievement Award”, *The Zimbabwean*, August 8, 2010
- “The Water Harvester”, *Travel Africa Magazine*, 2011
- “Planting Water: sustainable agriculture in Zimbabwe”, Ian Scoones, *The Zimbabwean*, October 7<sup>th</sup>, 2013

### **Testimonies**

Thousands of people have produced testimonies to Mr. Phiri in their writings, in his Visitor’s Books, and for the events around his international and Lifetime Awards. These testimonies speak to Mr. Phiri’s ability to inspire, his remarkable achievements, and to his spirit of applied research. A sample follows:

- Mr. Ezekiel Makunike when the 22 person group from Environment Africa that visited Phiri’s home on Sept 8<sup>th</sup>, 2004 argued unanimously that he “deserves an honorary doctorate degree in agriculture by the country’s universities”. Mr. Makunike, former Director of Information in the Government of Zimbabwe, made a similar call at the 2010 Lifetime Achievement Award event.
- Mr. Achim Steiner, Secretary General of the United Nations Environment Programme wrote: “Clearly his journey and accomplishments demonstrate the ‘power of one’ to make a difference. This is such an important message – particularly to young people who often feel such a sense of powerlessness and frustration in the face of seemingly overwhelming problems. It also speaks to the importance of solidarity and trust which Mr. Phiri enlisted in his efforts – and that even when some of us cannot act directly we can support others in providing leadership for development. Congratulations – Mr. Phiri!” (On the occasion of his Lifetime Achievement Award, dated July 13<sup>th</sup>, 2010)



- Professor T.O. Ranger: “Zephaniah is the greatest listener of all the people in these books. Now internationally famous, he founded one of Zimbabwe’s earliest indigenous NGOs – the Zvishavane Water Project. He embodies, in a body still crippled from the leg irons, what can be done with the autonomy nationalism demanded and in whose name the war was so ambiguously fought.... Zephaniah Phiri, the ecological hero of Zvishavane.” In a review in the *Journal of Southern African Studies*, 2002
- Dr. K.B. Wilson at his Lifetime Achievement Award: “We are here [at UZ] because it is fitting that a University should concern itself with remarkable innovation and practical research by ordinary citizens as well as by its own staff and to seek to understand and document what has been achieved, and to disseminate these learnings to wider society. And one such person is Mr. Zephaniah Phiri Maseko. For there is no Research Institute or University Farm in this region that has developed and tested over forty years such an innovative, productive, sustainable, resilient and cost-effective system of cropping for the semi-arid sandveld and kopje region that characterizes so much of the Communal Areas of this country.” August 24<sup>th</sup>, 2010
- Dr. Robin Palmer “Mr. Phiri is one of the most remarkable people I have ever met in my life”, Palmer is the author of *Land and Racial Domination in Rhodesia*, (1977), and formerly of Oxfam UK; written testimony for his Lifetime Achievement Award, dated July 15<sup>th</sup>, 2010)

It is meanwhile clear from his Visitor’s Book that though Mr. Phiri has only primary education he has become recognized as a RESEARCHER by specialists from all over Zimbabwe’s university, research and agricultural institutions, as well as international agencies such as ICRISAT, FAO, IFAD etc. For example:

- G. Gumbozvanda (ICRISAT) “This is an eye opener. Extend this to higher institutions of learning and colleges for indigenous soil and water conservation”
- W. Shoshore (Agritex) “We need to learn more from the innovative researcher”
- Miriam Mhunduru (VSO) “An excellent display of indigenous knowledge”
- M. Muvondori (Masvingo Province) “Very helpful to my theoretical concepts”
- Esther Kasalu Coffin (IFAD-Rome) “This is brilliant. Please keep it up and share the knowledge”
- Lovemore Mufumhe (DDF Water Division) “The place is like a training institute”
- W. Chivisa (ICRISAT) “Inspirational. Advanced agriculture in dry areas. Against the odds.”
- Christos Sibanda (then of Institute of Water and Sanitation Development) “Mr. Z Phiri’s site is even better than last time. The water he planted is ready for harvest”

From the University of Zimbabwe’s Department of Agriculture we have comments like “very impressed” from Z Mugwira, while Chipso Mususa said “magnificent” and Florence Mtanganengwe “excellent”. Brian Mudzodzi from MSU said “this place is unbelievable”, and Dr. Mtaita from Africa University said it was

“perfect” (since when VaPhiri implemented 100 improvements). Dr. Mugabe from the Midland State University undertook extensive hydrological studies with Mr. Phiri to understand the impacts.

Many visitors encouraged further research and collaboration. For example:

- B.B.S. Madondo from Masvingo said in 1998 “Do a resource map of the homestead and farm”.
- F.S. Makoni of the Institute of Water and Sanitation Development wrote in 2003 “I am impressed and I wish if the project be documented and shared with the region”.
- N. Hondoyomoto of CADEC wrote in 2002 “Keep on documenting your experiments”.
- G. Tobaiwa from CARE suggested in 1998 “We urge this centre to be developed as a conservation college. This is great ideas!”

The visitors – whether from government, NGOs or farmer groups, called for dissemination of his innovation to farmers from around the country and the world. Here are some examples:

- Dr. Justice Nyamangara (UZ and Africare – now CYMMYT) “Very impressed with what I saw. I wish every farmer could copy these brilliant innovations”
- J. Manyame (CARE, Masvingo, 1998) “This is good. I shall bring some farmers from Chivi”
- Mr Dube, from neighboring Lwanga School area in Zvishavane: “I have been asked by farmers at our place to come and see your water harvesting Mr Phiri. They want you [to] come and help them.”
- C Chikomba (CARE Masvingo) “This is incredible. A lot of farmers should have the chance to learn about the techniques”
- Mr. Owen Shumba (SAFIRE) “Please let’s work together from now on”
- Mr. A Paulo (AGRITEX Gwanda) “Ideal techniques for dry areas! MORE: we shall duplicate them”
- Mr. Collins Chibvamushure (Farmer) “I learned a lot from you Mr. Phiri. I will do the same when I go back”
- Pastor Andrew Maphimidze “The Eden Project is a Gift from God”
- Dr. Tim Forster (Brazil) “V. interesting initiative with many examples of appropriate low cost technologies. Let’s promote the ideas”
- Mr. Lovemore Bayayi (PLAN Mutare) “Your work is cost effective and does not require any donor”
- Mr. Kevin Lowther (CARE, US) “This is the beacon of light for the region. I learned much.”