

Sister Cities  
Urbana, IL USA  
Zomba, Malawi  
Haizhu District,  
Guangzhou, PRC



2013 Sino-African Initiative  
2010-2012 African Urban Poverty Alleviation Program Grant  
Report of on-site visit January 23-February 3, 2013



## Africa



802129 (547147) 3-93

<http://geography.about.com/library/cia/blcmalawi.htm>



# Malawi Geography

- Same size & population as Pennsylvania.
- One of poorest countries in Africa.
- National debt ~228% of GDP (USA is ~ 103%).
- ~14% adults HIV infected,
- Most are Christian, 10% muslim
- 7 languages, 3 groups of ethnicity
- ~ \$860/person, ~\$2.35/day
- Agriculture is principal source of FOREX (60% tobacco), mining is increasing.





Zomba Plateau from Chancellor College.

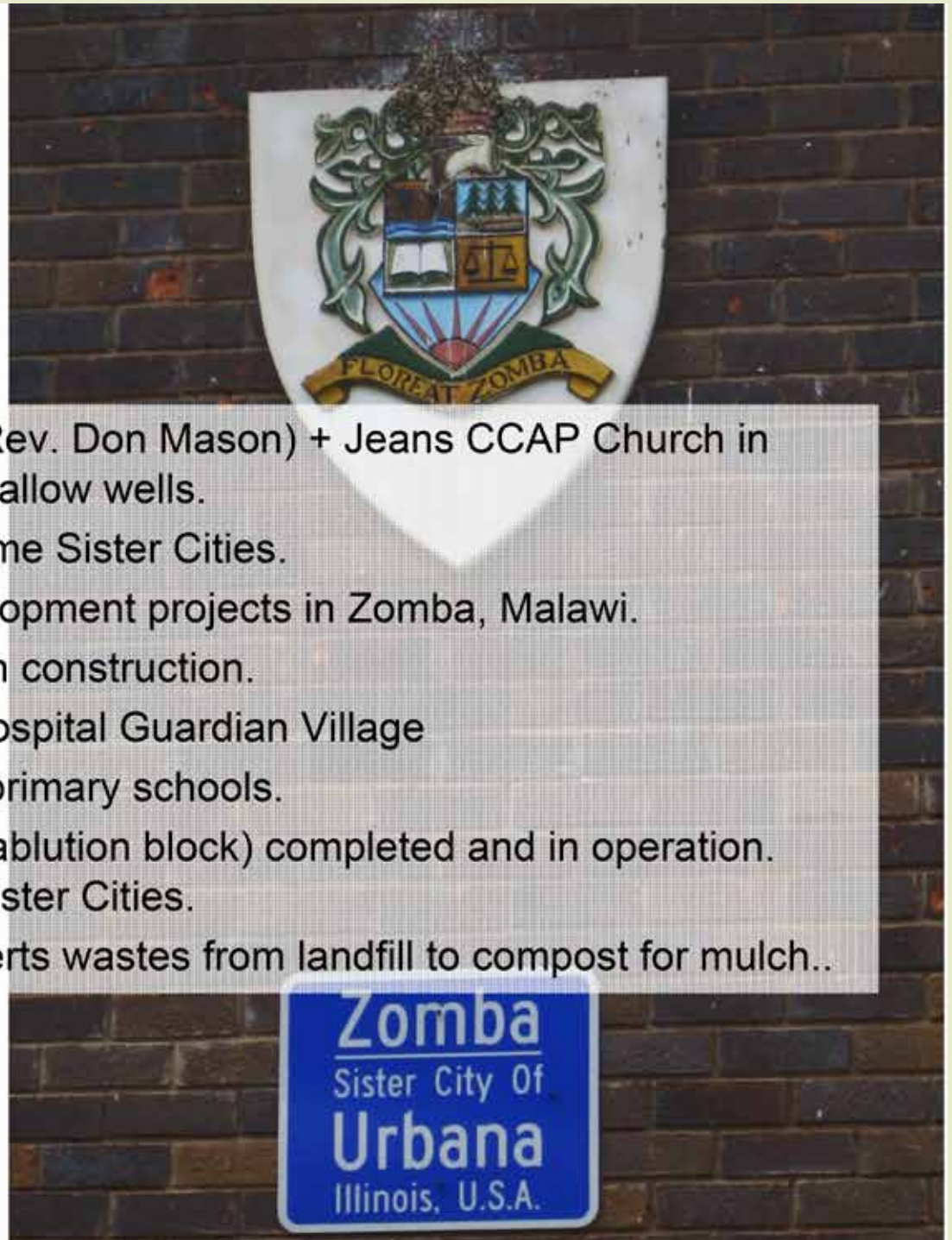






## Chronology of Urbana-Zomba-Haizhu District, Guangzhou Sister Cities

- Urbana Presbyterian Church (Rev. Don Mason) + Jeans CCAP Church in Domasi build more than 600 shallow wells.
- 2009 Urbana and Zomba become Sister Cities.
- 2010 AUPAP funds three development projects in Zomba, Malawi.
- 2010 Two projects proceed with construction.
  - Ablution Block at Zomba Hospital Guardian Village
  - Toilets with doors at three primary schools.
- 2012 AUPAP Projects (toilets, ablution block) completed and in operation. Haizhu D. & Urbana become Sister Cities.
- 2013 Sino-African Initiative diverts wastes from landfill to compost for mulch..



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# Sino-African Initiative Grant Awarded 2010

The Urbana Sister Cities Program is awarded a \$100,000 grant from Sister Cities International to improve health and sanitation in our African Sister City, Zomba, Malawi. Urbana will manage a **Tri-lateral Partnership** of mutual cooperation with Zomba and our Chinese Sister City, Haizhu District in Guangzhou, China. All will work to solve problems and bring solutions to significant health issues in Zomba.

The team selects trash collection and garbage removal as its major focus. Trash collection bins will be constructed in key areas of Zomba. Grant money will also be used to purchase of a garbage truck for collecting trash in Zomba.

Team member Scott Tess, Urbana's Environmental Sustainability Manager, proposes building separate organic waste collection bins and the construction of a composting station at Zomba's landfill. Composted organic vegetable matter will be bagged and sold to local farmers, creating an organic recycling plan for the city. Sale of Compost will make the plan financially sustainable and improve crop yields.

These plans are approved and work commences. Team members meet in Malawi, visiting earlier AUPAP work sites and looking at Zomba's trash collection infrastructure.





Urbana and Zomba Sister City Committee members at Nairobi conference sponsored by Sister Cities Int'l (US State Dept.) and Friendship Cities (PRC)

# Sun Yat Sen University, Haizhu District Guangzhou, Guangdong, PRC



Haizhu District, Guanzhou is Sister City to Urbana





Sino-African Initiative Committee, Zomba, Malawi 2013.





Washing clothing at Zomba Hospital 2010.



# Zomba Hospital Guardian Ablution Block



Hospital staff take care of medical needs.

Feeding, washing, clothing, some nursing is done by family "guardians."

Ablution block provides toilet, shower and laundry for guardians.

Urbana and Zomba City Sister City Committee and City Staff

# Zomba Hospital Guardian Ablution Block





# Zomba Hospital Guardian Ablution Block



Urbana and Zomba City Sister City Committee and City Staff

**“Rocket” stove  
(donated by Scott  
Dosset and Meg  
Miller) is more  
efficient than open  
fire cooking.**







Chikamveka School, Zomba, Malawi.



## GROUP FORM 3 PLATE MOVEMENTS

① Convergence plate movement  
When two plates are moving towards each other, they are said to be converging. Plates converge at a boundary known as Zone of Subduction.

At this zone one plate (heavy) uplifts the lighter one. As it uplifts the lighter one it sinks down melting in the process to form Magma.

(Heavy) Zone of Subduction



heavy plate sinks.  
Features associated with this boundary are: trenches, Volcanoes, Fold Mountains, Oceanic deep.  
Plates moving in this way are said to be destructive Margins.

## ② Divergence

This occurs when two plates move away from each other. Divergence plate movement is also known as Constructive Margins. This is so because plates detach peacefully.



As plate A moves away from plate B that leaves a gap between the two plates. This gap is filled with Magma. It might be the formation of Oceanic Ridges as a feature & also faults. This can also result in Rift valleys.

## ③ Shearing / Transform Boundary

Formed as two plates move past each other. As they move past each other they shear.



This kind of movement of plates results in formation of faults. For example the San Andreas Fault of U.S.A.

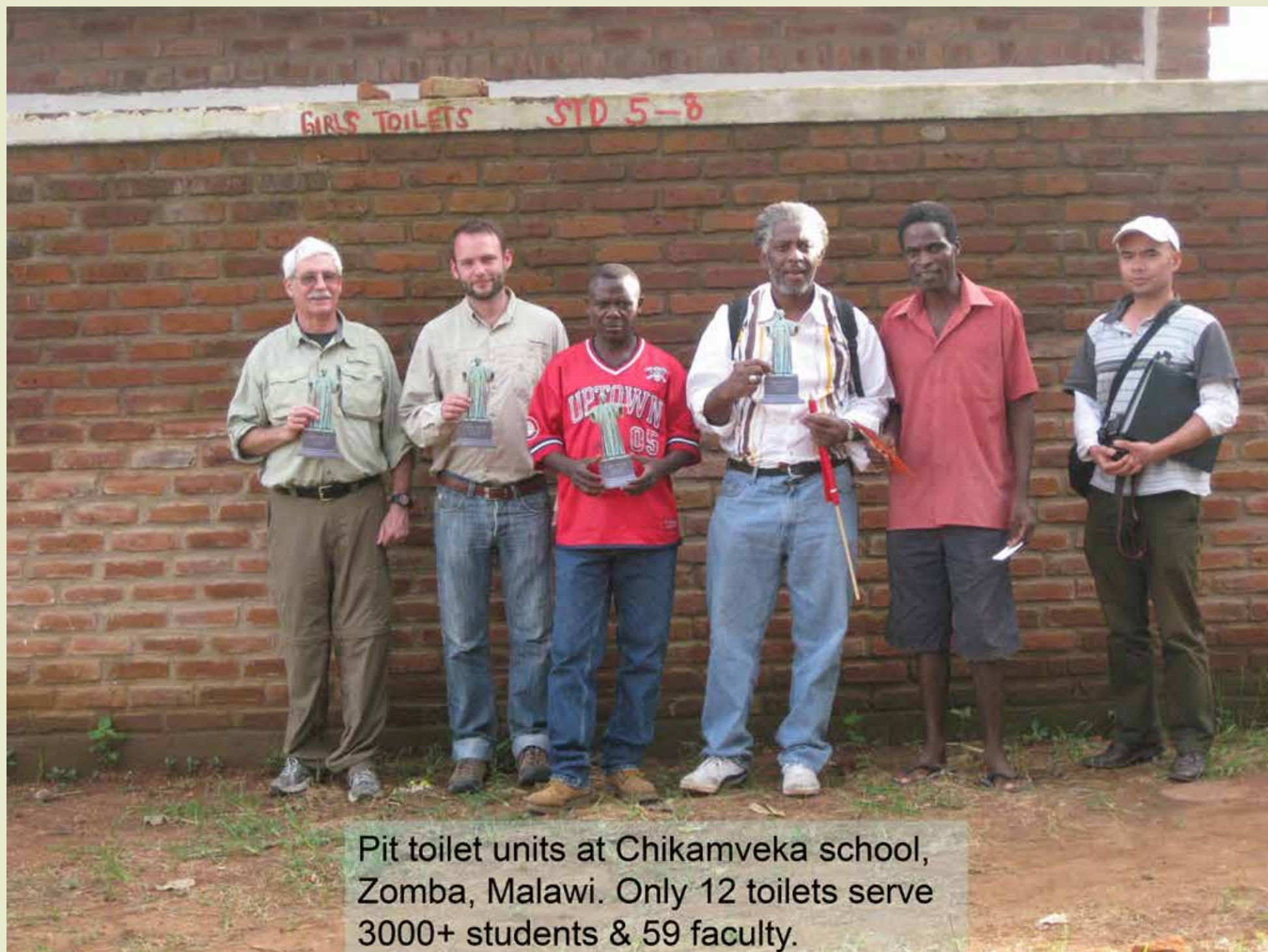
## MOUNTAIN BUILDING (OROGENESIS)

All process involved in the building of mountains are called Orogenesis.

## TYPES OF MOUNTAINS

- ① Fold Mountains
- ② Block Mountains
- ③ Volcanic Mountains
- ④ Residual mountains





Pit toilet units at Chikamveka school, Zomba, Malawi. Only 12 toilets serve 3000+ students & 59 faculty.





Toilets at Thundu school.



Toilets at Chalomwe school.





Urbana Sister City Committee members at sewage works in Zomba.



## 2013 Sino-African Initiative PROJECTS

1. Reduce landfilled garbage by diverting organics to compost.
2. Repair sewage treatment plant to restore lost capacity.
3. Repair broken sewer line at hospital.
4. Combine sewage sludge and organics to compost-for-sale business.











Sewage sludge drying bed 2013, Zomba, Malawi.





**Much of Zomba's landfilled waste is organic which could be composted rather than landfilled.**





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Dump at Guardian Village at Zomba Hospital which has been removed for ablution block.









New trash bins are divided to collect solid waste and organic trash.





New garbage truck arrives in Zomba.





SAI Participants: John Dimit and Sam Smith, USA; Dison Jinga, Zomba CEO; Qiang Zhang and Kairong Lin, China.





Busta Chinola and Chris Stohr present Zomba's project at Sister Cities International meeting.





Busta Chinola (Zomba), Mary Kane (President of Sister Cities International), Kairong Lin (Haizhu), and Chris Stohr (Urbana) at SAI Award Ceremony.