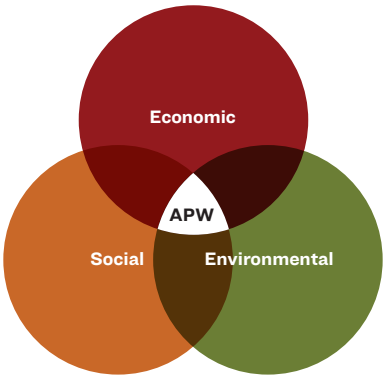
Living Walls

APW's Triple Impacts to Bottom Line

APW's approach to conservation generates measurable, positive results for people, planet, and economic growth.



Economic Impact

- Reduced underemployment
- Improved financial security (livestock protection and rangeland management)
- Increased household revenue

Social Impact

- Livelihood improvements
- Gender equality
- Food security
- Educational opportunities
- Climate change resilience

Environmental Impact

- Wildlife conservation
- Habitat protection
- Community natural resource management

Living Walls: An Example of APW's Impact Multiple of Money (IMM)

At the average cost of $500/Living Wall and an expected lifespan of 30 years*, conservative estimates suggest that Living Walls provide livestock owners with financial savings of $2,592 per Living Wall, an IMM of 5.18.** The 1,109 Living Walls currently installed at an expense of $554,500 are leading to financial savings of $2,874,528. This figure does not include the value of the social and ecological goods also provided by Living Walls.

*Based on estimates of the longevity of the chain link fencing used in the construction of Living Walls

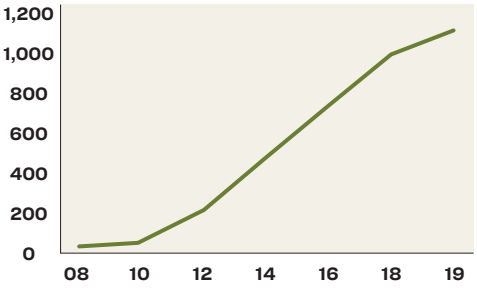
** Calculations based on a conservative annual rate of depredation of .009 attacks/year or a lifetime attack rate of 3.24 (Lichtenfeld et al 2015); estimates based on each attack resulting in the loss of one cow valued at $800

Living Walls: A Triple Conservation Win

Designed hand-in-hand with local people, Living Walls are environmentally friendly corrals that keep livestock safe from predators. Living Walls are a triple win for conservation because they protect livelihoods, save big cats from retaliatory killing, and add trees to the environment. To build a Living Wall, community members plant a circle of trees that serve as posts for chain link fencing. As the trees grow, they add height to the wall and create an impenetrable barrier. Living Walls are in high demand across northern Tanzania. Local involvement is strong, with individual owners contributing 25 percent of the cost.

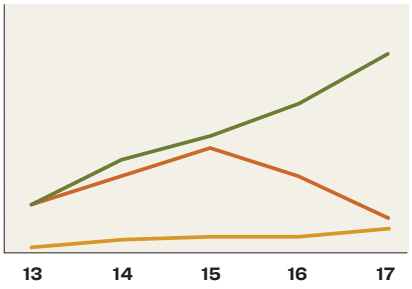
Living Walls in Northern Tanzania

2008–2019 (cumulative)



Conflicts Versus Living Walls

Lake Manyara-Burunge



- Boma (household) depredation rates decline by 90% in areas of high Living Wall density, and Living Walls demonstrated statistical significance in reducing the number of attacks on livestock at the boma as compared to bomas without Living Walls via verified conflict data (Lichtenfeld et al 2015; additional supporting data in Mkonyi et al 2017a).
- 73% of people surveyed indicated they had fewer livestock attacks since the installation of Living Walls, and 94% of individuals with Living Walls indicated they saved money as a result (Wilkinson and Temu, Social Impacts of Human-Wildlife Conflict Resolution, white paper, 2017). Fortified bomas were perceived to be very effective (97.7%) in reducing nighttime depredations, while adult herders were perceived to be effective (71%) in reducing daytime depredations (Mkonyi et al 2017b).
- Prior to Living Wall installations, approximately 6-7 lions were killed annually per community in the Tarangire-Manyara ecosystem (amounting to 72-84 lions/year across 12 communities; Lichtenfeld 2005; Kissui 2008). Zero lions have been killed at Living Walls since their installation (Lichtenfeld et al 2015).
- Livestock owners with Living Walls are significantly ($X^2 = 20.003$, df = 3, $p < .001$) more likely to tolerate an increase in carnivore populations (Wilkinson and Temu, Social Impacts of Human-Wildlife Conflict Resolution, white paper, 2017).

Sources:

Lichtenfeld, L. L., C. Trout and E. Kisimir. 2015. Evidence-based conservation: Predator-proof bomas protect livestock and lions. Biodiversity and Conservation, 24: 483-491.

Mkonyi, F. J., A. B. Estes, M. J. Msuha, L. L. Lichtenfeld and S. M. Durant. 2017a. Socio-economic correlates and management implications of livestock depredation by large carnivores in the Tarangire ecosystem, northern Tanzania. International Journal of Biodiversity Science, Ecosystem Services & Management. DOI: 10.1080/21513732.2017.1339734

Mkonyi, F. J., S. M. Durant, A. B. Estes, M. J. Msuha and L. L. Lichtenfeld. 2017b. Fortified bomas and vigilant herding are perceived to reduce livestock depredation by large carnivores in the Tarangire-Simanjiro ecosystem, Tanzania. Human Ecology. DOI: 10.1007/s10745-017-9923-4

Wilkinson, C. and S. Temu. 2017. Social impacts of human-wildlife conflict resolution: Lessons from Living Walls and the PHE approach, white paper produced by University of California Berkeley and the PHE Learning Lab.