# Lessons from Community-based Forest Restoration in Haiti & Connections to Forest Management in Vermont

Julia Pupko Sosyete pou Rebwaze Duchity Haiti (SRDH)



#### Who are we?

Our mission is to implement accessible reforestation and agroforestry projects in partnership with community, farmers, and other groups.

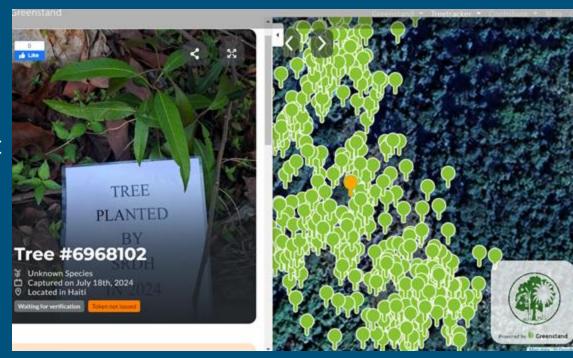
We accomplish this by providing education, training, materials, and support - facilitating a space to collaboratively replant and manage Haiti's forest ecosystems.



© SRDH 2023

## Our Approach

- Meet with multiple stakeholders during project planning phase
- Provide workshops and education
- Follow up and monitoring
  - TreeTracker



TreeTracker

# Regional context

### **SRDH Projects**



Education



Reforestation



Agroforestry

#### Education

#### May 1 (Arbor Day) Event

- Partner with schools
- ► Invite community
- Hands-on learning
- Increases interest in learning

Agroforestry materials and support for farmers

Capacity building training series



May 1 2024 © SRDH

# Reforestation and Agroforestry

#### Community forests

Duchity community forest (22.5 acres)

► Dorvilier Family forest (13.47 acres)

Working on a lease for a third forest

#### Agroforestry on farmers' land

► Future: Lakou project

#### Marketable forest products

Women's Empowerment program with Trees that Feed Foundation



# Women's Program









#### Connections to Vermont

- Migratory birds
  - Bicknell's Thrush (Catharus bicknelli)
- High level of private land ownership
  - In VT: ~80% land privately owned
  - In Duchity region mostly private ownership, federal land still used by people

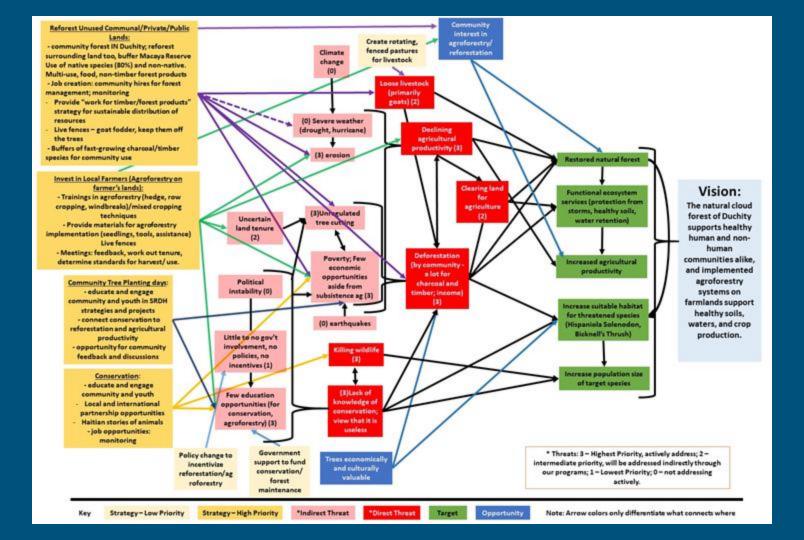


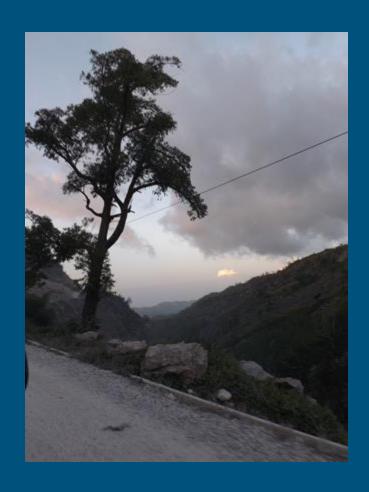
Bicknell's Thrush © Adam Jackson, iNaturalist

#### Lessons from our work

- While high levels of private land ownership create complexity, there are many opportunities for projects.
- Opportunities for agroforestry and food forests in Vermont
  - Additional marketable products
- Projects/ management plans truly represent communities
- Embracing complexity...







#### **Questions?**

Email:

https://www.srdhaiti.org/

Website:

https://www.srdhaiti.org/

Facebook:

https://www.facebook.com/RebwazeDuchity

Instagram:

@rebwazeduchity



#### Sources

- ▶ Bloch, P. C., Lambert, V., Singer, N. J., & Smucker, G. R. (1988). Land tenure issues in rural Haiti: Review of the evidence.
- ► Brenner, M. & Binford, M. (1988). A Sedimentary Record of Human Disturbance in Lake Miragoane, Haiti. Journal of Paleolimnology 1: 85-97.
- ▶ Bridgeland, W. T., Beier, P., Kolb, T., & Whitham, T. G. (2010). A conditional trophic cascade: birds benefit faster growing trees with strong links between predators and plants. *Ecology*, *91*(1), 73-84.
- ► Busch, J., & Ferretti-Gallon, K. (2017). What drives deforestation and what stops it? A meta-analysis. *Review of Environmental Economics and Policy*, 11(1), 3-23.
- ▶ Byrd, B. R. (2016). " To Start Something to Help These People": African American Women and the Occupation of Haiti, 1915–1934. *Journal of Haitian Studies*, 21(2), 154-180.
- ► Castor, S., & Garafola, L. (1974). The American Occupation of Haiti (1915-34) and the Dominican Republic (1916-24). *The Massachusetts Review*, *15*(1/2), 253-275.
- ► Christophe, G. (2005). Raché Manyok Bay Té-a Blanche: Deforestation in Haiti and the. Diamond, 354.
- ► Churches, C. E., Wampler, P. J., Sun, W., & Smith, A. J. (2014). Evaluation of forest cover estimates for Haiti using supervised classification of Landsat data. *International Journal of Applied Earth Observation and Geoinformation*, 30, 203-216.
- ▶ Dolisca, F., McDaniel, J.M., & Teeter, L.D. Modeling low-income farm households for estimating the efficiency of policy instruments on sustainable land use in haiti: the case forêt despins reserve Tropical and Subtropical Agroecosystems, vol. 6, núm. 3, 2006, pp. 133-142 Universidad Autónoma de Yucatán Mérida, Yucatán, México.
- ▶ Dolisca, F., McDaniel, J. M., Teeter, L. D., & Jolly, C. M. (2007). Land tenure, population pressure, and deforestation in Haiti: the case of Forêt des Pins Reserve. *Journal of Forest Economics*, 13(4), 277-289.
- ▶ Dolisca, F., McDaniel, J.M., Shannon, D.A., & Jolly, C.M. (2009). A Multilevel Analysis of the Determinants of Forest Conservation Behavior Among Farmers in Haiti, Society and Natural Resources, 22:5, 433-447.
- ▶ Dorvilier, J. (Personal communication, September 5, 2020). Conversation on additions to the project proposal and reforestation in Haiti.

Faccio, S., Lambert, D., Lloyd, J. (2017). *The Status of Vermont Forest Birds: A Quarter Century of Monitoring*. Vermont Center for Ecostudies.

Dupuy, A. (1989). Peasant poverty in Haiti.

- ► Farmer, P., Bourgois, P., Fassin, D., Green, L., Heggenhougen, H. K., Kirmayer, L., & Wacquant, L. (2004). An anthropology of structural violence. *Current anthropology*. 45(3), 305-325.
- ► Felima, C. A. (2009). Haiti's Disproportionate Casualties after Environmental Disasters: Analyzing Human Vulnerabilities and the Impacts of Natural Hazards. *Journal of Haitian Studies*. 6-28.
- ► Felix, D. (Personal communication, September 5, 2020). Conversation on additions to the project proposal and reforestation in Haiti.
- ► Fischer, A., & Levy, M. A. (2011). Designing environmental restoration programs in politically fragile states: Lessons from Haiti. Harnessing natural resources for peacebuilding: Lessons from US and Japanese assistance.
- ► Hagenbuch, S., Manaras, K., Patch, N., Shallow, J., Sharpless, K., Snyder, M., & Thompson, K. (2012). Managing Your Woods with Birds in Mind: A Vermont Landowners guide. *Audubon Vermont et ministère des Forêts, des Parcs et des Loisirs du Vermont*.
- ► García, D., & Martínez, D. (2012). Species richness matters for the quality of ecosystem services: a test using seed dispersal by frugivorous birds. *Proceedings of the Royal Society of London B: Biological Sciences*, rspb20120175.
- ► Gros, J. G. (2000). Haiti: The political economy and sociology of decay and renewal.
- ► Higuera-Gundy, A., Brenner, M., Hodell, D. A., Curtis, J. H., Leyden, B. W., & Binford, M. W. (1999). A 10,300 14C yr record of climate and vegetation change from Haiti. *Quaternary Research*, 52(2), 159-170.
- ▶ Jefferies, J. (2001). The United States and Haiti: An Exercise in Intervention. *Caribbean quarterly*, 47(4), 71-94.
- Lindskog, P. (1998). From Saint Domingue to Haiti: some consequences of European colonisation on the physical environment of Hispaniola. *Caribbean*

- Marquis, R.J., and C.J. Whelan. 1994. Insectivorous birds increase growth of white oak through consumption of leaf-chewing insects. Ecology 75:2007–2014.
- ► McGreevy, J. R. (2013). Kilti Pyebwa, the culture of trees: the value of local knowledge in coupled social-ecological systems of rural Haiti. 2000-2019-CSU Theses and Dissertations.
- ► Mintz, S. W. (1995). Can Haiti Change? Foreign Affairs 74(1): 73-86.
- ► Mobekk, E., & Spyrou, S. I. (2002). Re-evaluating IMF involvement in low-income countries: the case of Haiti. *International Journal of Social Economics*.
- ► Morrison, E. B., & Lindell, C. A. (2012). Birds and bats reduce insect biomass and leaf damage in tropical forest restoration sites. *Ecological Applications*, 22(5), 1526-1534.
- ► Murray, G. F. (1979). Terraces, Trees, and the Haitian Peasant: An Assessment of Twenty-Five Years of Erosion Control in Rural Haiti.
- ► Murray, G. F., & Bannister, M. E. (2004). Peasants, agroforesters, and anthropologists: A 20-year venture in income-generating trees and hedgerows in Haiti. *Agroforestry Systems*, *61*(1-3), 383.
- ► Oliver-Smith, A. (2010). Haiti and the historical construction of disasters. *NACLA Report on the Americas*, 43(4), 32-36.
- ▶ Pamphile, L. D. (1986). The NAACP and the American occupation of Haiti. *Phylon (1960-), 47*(1), 91-100.
- ► Rimmer, C. C., Townsend, J. M., Townsend, A. K., Fernández, E. M., & Almonte, J. (2005)a. Avian diversity, abundance, and conservation status in the Macaya Biosphere Reserve of Haiti. *Ornitología Neotropical*. *16*(2005), 219-230.
- ► Rimmer, C. C., Gomez, E. G., Brocca, J. L., Puello, F. M., & Km, A. J. F. K. (2005)b. Omithological field investigations in La Visite National Park, Haiti, 26 January–1 February 2005. *Vermont Institute of Natural Science, Technical Report*, 5(03), 1-24.
- ▶ Roc, N. (2008). Haiti-Environment: From the 'Pearl of the Antilles' to desolation. FRIDE: Comment September.
- ► Schwenk, W. S., Strong, A. M., & Sillett, T. S. (2010). Effects of bird predation on arthropod abundance and tree growth across an elevational gradient. *Journal of Avian Biology*, *41*(4), 367-377.

Sergile, F. (2009) Haiti. Pp 249 – 254 in C. Devenish, D. F. Díaz Fernández, R. P. Clay, I. Davidson

- ► Soto-Centeno, J. A., Simmons, N. B., & Steadman, D. W. (2017). The bat community of Haiti and evidence for its long-term persistence at high elevations. *PloS one*, *12*(6), e0178066.
- ► Sprenkle, S. D. (2008). Community-Based Agroforestry as Restoration: The Haiti Timber Reintroduction Project Methods and Framework. *Ecological Restoration*, 26(3), 201-203.
- ► Steckley, M., & Shamsie, Y. (2015). Manufacturing corporate landscapes: the case of agrarian displacement and food (in) security in Haiti. *Third World Quarterly*, *36*(1), 179-197.
- Swartley, D. B., & Toussaint, J. R. (2006). Haiti country analysis of tropical forestry and biodiversity. *US Agency for International Development and US Forest Service (Management and Engineering Technologies International, Inc.)*.
- ► Tarter, A. (2010). Thirty Years After a Tree-Planting Project: A Political Ecology Perspective on Behavior and Land Changes in Rural Haiti (Doctoral dissertation, University of Florida).
- ► Timms, B. F. (2008). Development theory and domestic agriculture in the Caribbean: recurring crises and missed opportunities. *Caribbean Geography*, 15(2), 101.
- ► Timyan, J. (1996). *Bwa yo: important trees of Haiti*. South-East Consortium for Int. Development.
- ► Turvey, S. T., Meredith, H. M., & Scofield, R. P. (2008). Continued survival of Hispaniolan solenodon Solenodon paradoxus in Haiti. *Oryx*, 42(4), 611-614.
- ► U.S. Agency for International Development (USAID). (2010). Seed System Security Assessment:
- Haiti. Office of Foreign Disaster Assistance. 1-115.

  ►U.S. Fish and Wildlife Service (2018). Economic Impact: Birds, Birdwatching, and the U.S.
- Economy. Retrieved October 12, 2020, from https://www.fws.gov/birds/bird-enthusiasts/bird-watching/valuing-birds.php
- ► White, T. A., & Jickling, J. L. (1995). Peasants, experts, and land use in Haiti: lessons from indigenous and project technology. *Journal of Soil and Water Conservation*, 50(1), 7-14.
- ► Williams, V. J. (2011). A case study of desertification in Haiti. *Journal of Sustainable Development*, 4(3), 20.
- ► Whelan, C.J., C.H. Sekercioglu, and D.G. Wenny. 2015. Why birds matter: from economic omithology to ecosystem services. Journal of Ornithology 156:227-238. doi:10.1007/s10336-015-1229-y