COMMUNITREE **Transdisciplinary research to evaluate the social &** environmental outcomes of a boundary-spanning tree-planting partnership

SUMMARY

CommuniTree is a new, multi-organization, community urban forestry partnership that engages in tree planting in underserved, post-industrial Northwest Indiana communities. Coordinated by the U.S. Forest Service and modeled after Collective Impact, the partnership involves public (federal, state, and municipal), private, nonprofit, and university partners. CommuniTree coordinates grant- and privately-funded urban forestry in communities that would not otherwise be able to plant and care for trees. Urban trees provide benefits including stormwater management, energy conservation, air pollution reduction, human health, and even increased social capital. However, benefits may be under-realized in post-industrial communities where high vacancy rates depress municipal tax bases and thus threaten provision of municipal services such as tree planting. For Northwest Indiana, socio-economic issues are compounded by environmental challenges posed by the unique dune and swale ecosystem along Lake Michigan. This poster describes the design and preliminary results of a long-term applied, transdisciplinary research project to evaluate the socio-environmental outcomes of **CommuniTree.** The evolution of the structure and operations of CommuniTree is an experiment in an informal cross-sector tree-planting partnership. Results from interviews with stakeholders and from a survey of tree-planting volunteers reveal the motivations for, desired outcomes from, and benefits from involvement of organizations and individuals in CommuniTree. Partnerships like CommuniTree are relatively rare in urban forestry. CommuniTree is not a formal organization; it has no administrative budget and no permanent staff. Yet tree planting, care, and engagement with communities happen. Studying CommuniTree will help generate a model for decentralized boundary-spanning collaboration across sectors that perpetuates sustainable urban forestry.

WHAT IS COMMUNITRE?

CommuniTree is a *collaborative, multi-organizational tree planting partnership* based on the Collective Impact model (at right).

- *Instigated by* USFS's Drew Hart *in 2016*
- "Backbone" organization: Student Conservation Association (SCA), through which grant funds flow
- Nearly 2,000 trees planted by SCA crew, through volunteer tree planting events (below), or disbursed to municipalities and school or community groups

Research Questions

This research will set up a *long-term, transdisciplinary, social-ecological research project* to evaluate how resources flow from stakeholders to the activities of CommuniTree to produce the desired, possible, and observe outcomes identified by stakeholders and community members (see conceptual model, above center).

- **1.** Who are the formal *stakeholders* and other *participants* involved and what *role(s)* do they play?
 - **a.** What are the *motivations* for stakeholder and participant involvement?
 - **c.** What are the *desired outcomes* of stakeholders and how do the desired outcomes of each stakeholders align (or not) with each other?
- 2. What *resources* (funding, time, personnel, material, etc.) are stakeholders allocating to the Communi-Tree effort and *to what activities* are these resources dedicated?
 - **a.** How does this *allocation of resources impact capacity* (activities before, during and after tree planting) and *outcomes* obtained?
- **3.** What are the *observed environmental* and *community outcomes* of CommuniTree?

SESYNC

- **a.** How do these *compare to the desired outcomes* of stakeholders?
- **b.** How does the *surrounding socio-environmental context* influence CommuniTree stakeholders & participants and observed environmental & community outcomes?





Tree Outcomes - GPS location of trees captured at planting; re-inventory of planted trees to be conducted in Fall 2019 to track survival and condition

DR. JESS VOGT^{a*}, MARGARET ABOOD^b,

^aAssistant Professor ^bEnvironmental Science & Studies student





Desired, **Possible** & **Observed Outcomes**

- Environmental outcomes • Tree survival \rightarrow provision of benefits (stormwater
- management most crucial) Character of conservation and
- restoration areas • Other biophysical, ecological, or environmental outcomes defined by stakeholders
- Community outcomes • Stewardship capacity
- Level of participation & buy-in of different stakeholders, including industry partners
- Education, awareness & attitudes about conservation. tree planting and related goals
- Employment/training opportunities for tree crews
- Human health outcomes
- Improved relations between municipality and citizens
- Mitigation of future costs for municipalities and private stakeholders by proper planting practices

- Nonprofits: specific to mission of organization prioritize social v. ecological outcomes based on mission
- *Industry partners:* wish to improve community relations
- *Municipalities:* wish to restore trees lost to EAB

- *"Stakeholder"* = group that provides/receives resources to/from CommuniTree

- producing vidual map of the transformation of grant dollars into CommuniTree

- at did not have any volunteers



SELECT LITERATURE

- tion. Salem, OR.
- Urban Green. 14, 48–55. doi:10.1016/j.ufug.2014.11.004
- Kania, J., Kramer, M., 2011. Collective Impact. Stanford Soc. Innov. Rev. 36-41.

MANUSCRIPT: We are currently vriting up the results of stakeholder terviews. Check out the project on the LUFA website for project updates: www.lufa-depaul.org/communitree

Boundary Spanning Advances in Socio-Environmental Systems Research An International Symposium June 11th -13th 2018





DEPAUL UNIVERSITY

PRELIMINARY RESULTS

Stakeholder Interviews

• Stakeholders became involved due to *personal interest* of stakeholder contact

• Stakeholders involved in grant applications have more formal relationships with CommuniTree program than non-grantees • Desired outcomes of...

• *State agencies:* increase ecosystem services

Volunteer Survey

• 32 respondents to date, across fall '17 + spring '18 events • Typical volunteer is *female, white, works full time,* and was born in the 1990s (college student)

• 56% had previously planted a tree

• *Environmental attitudes* were strong (figure below left). • *Personal efficacy:* Volunteers felt that they had more of an influence on local level compared to national or global level (figure below right)

• CommuniTree has struggled in community outreach and getting volunteers to show up to their events - 2 of 4 tree-planting events researchers were present

• We will continue to survey volunteers at tree-planting events next fall

Driscoll, A.N., Ries, P.D., 2015. Cultivating a greener collective impact: A guidebook for regional urban forestry collabora-

Driscoll, A.N., Ries, P.D., Tilt, J.H., Ganio, L.M., 2015. Needs and barriers to expanding urban forestry programs: An assessment of community officials and program managers in the Portland – Vancouver metropolitan region. Urban For.









