

The Forest Carbon Opportunity for First Nations communities in Canada

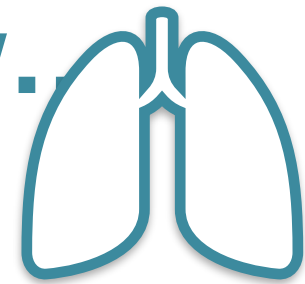
Jamie MacKinnon
July, 2019



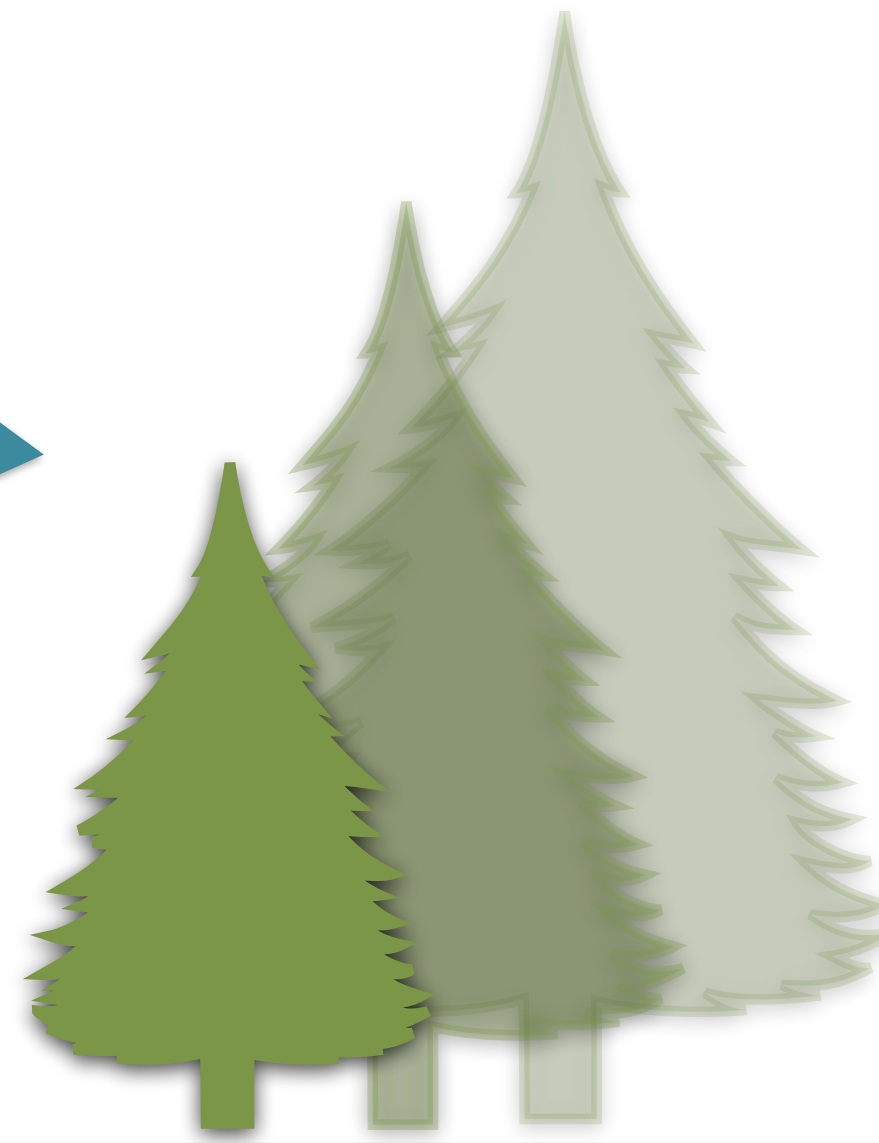
1 | How does Forest Carbon Sequestration work?

FORESTS HAVE THE CAPACITY TO SEQUESTER AND STORE CO₂

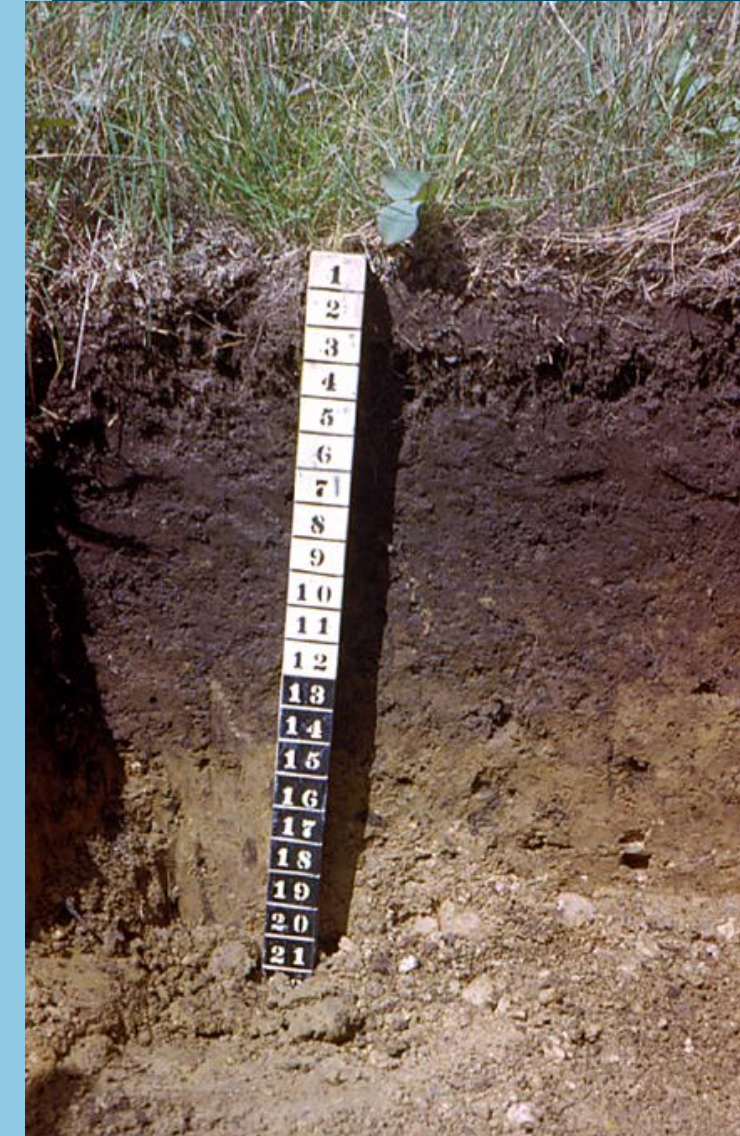
Trees “breathe” CO₂ as they grow.



This helps pull CO₂ from the atmosphere and stores it in the wood



CARBON POOLS



Carbon pools include **belowground** and **aboveground** biomass, **soil** organic carbon, dead organic matter (**DOM**) and **Harvested Wood Products**

CARBON POOLS

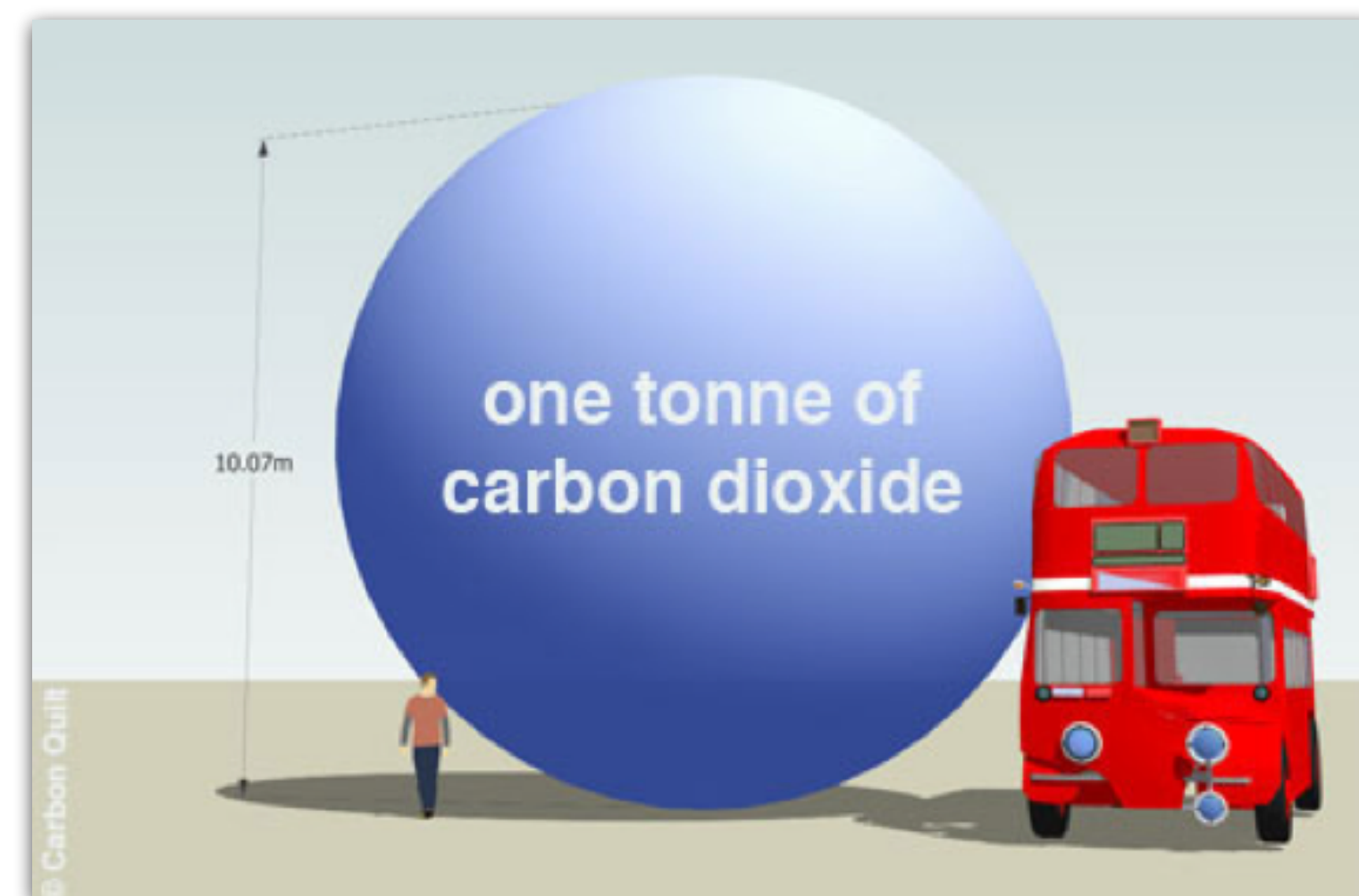
1 ton of carbon sequestered by
~4 m³ of wood

If burned releases 3.7 tCO₂



HOW CAN SEQUESTERED CO2 BE VALUED?

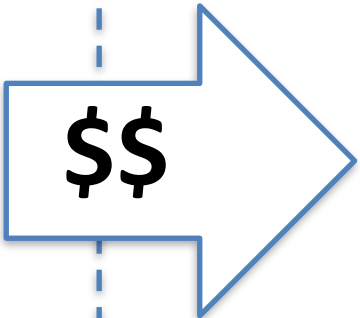
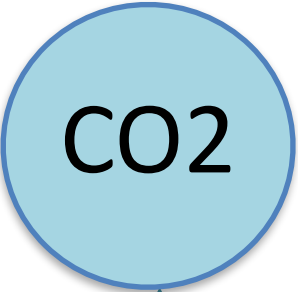
- CO2 sequestered from forests can be valued in the form of forest carbon offset credits that meet the criteria of a forest carbon offset protocol.
- An offset credit is equivalent to a tonne of CO2, and can be purchased by companies to OFFSET their emissions.
- Companies regulated in carbon pricing markets can buy '**compliance offsets**' to meet their regulatory obligations.
- Many companies buy '**voluntary offsets**' to meet voluntary carbon neutrality goals.



Where do the funds for forest carbon projects come from?

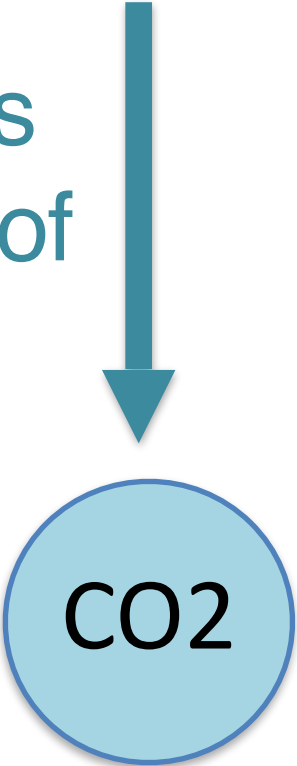
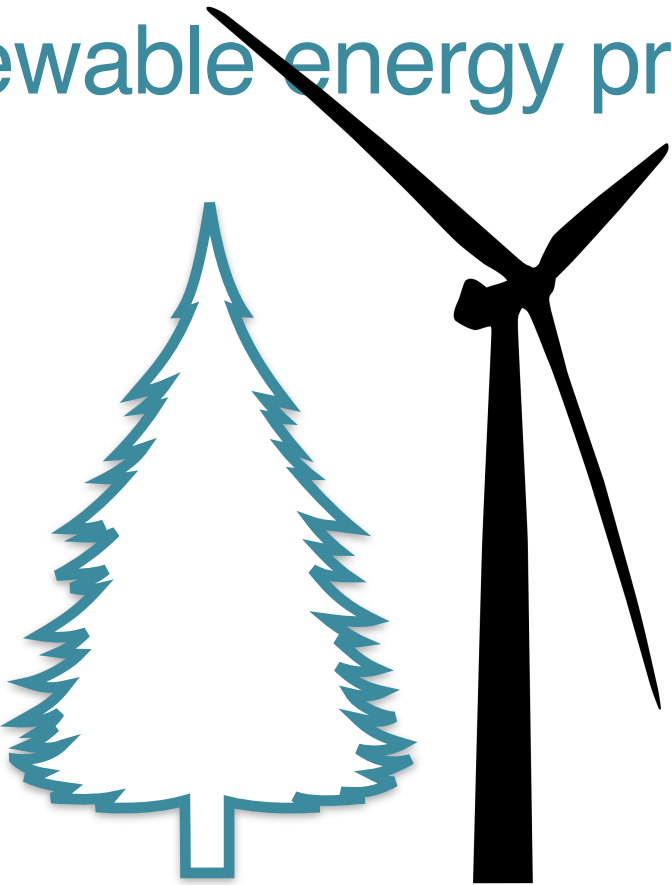
Offset Purchasers

- 42 Regulated Emitters in SK
- Potentially regulated emitters in other



Offset Suppliers

- Sustainable forestry projects that capture large amounts of CO2
- Reforestation projects
- Renewable energy projects



2 | Market for Forest Carbon Offsets

Status of Compliance Offsets in Canada

- Existing offset markets exist in Alberta, B.C. and Quebec. Pricing in these markets varies but is lowest in B.C (\$8-\$12 per tonne of CO₂) and highest in Alberta (~\$20/tCO₂)
- The existing provincial carbon markets have approved protocols to develop offsets in several technologies but all 3 are working on the adaptation and approval of a forest carbon offset protocol.
- Other provinces allow offsets in their carbon pricing systems and are currently developing offset programs: Saskatchewan, Nova Scotia.
- The Federal carbon pricing system is in place in Ontario, Manitoba, New Brunswick, PEI and the Territories. The federal government is working on a federal offset system that will allow forest carbon offset projects from these provinces.
- The provincial and federal offset program that are under development are all expected to be fully operation in 2021.

Status of Voluntary Offsets in Canada

- There are buyers of voluntary offsets who Bluesource works with who are interested in forest carbon projects on indigenous lands and will pay premiums.
- Existing voluntary offset protocols can be used to generate voluntary offsets today.
- Buyers value the GHG sequestration but are also looking for other values such as biodiversity protection, watershed benefits, contribution to First Nations reconciliation.
- Undertaking a voluntary offset project can be a good way for First Nations to generate significant value from sustainable forest management or conservation of forests on Reserve or Treaty Land Entitlements without having to wait on government action.
- Projects done using voluntary offset protocols can sometimes transition to create 'compliance offsets' when these protocols are approved by regulators.

2 | Forest Carbon Offset Projects

Forest Carbon project on Reserve Land or Entitlement lands

- Offset credits are calculated as the difference between:
 - a. A hypothetical scenario (baseline) maximizing the intensity of timber harvesting that is commercially viable; and
 - b. The carbon actually stored in the forest that is managed sustainably and according to traditional values.
- The Community commits to managing the forest sustainably and retaining the CO₂ sequestered over the long-term.
- In exchange for this commitment, offsets are generated and can be sold to regulated entities to generate what can be significant revenues.
- The community can still manage the land the way it wishes, (including timber harvesting and other activities) but must not harvest more than the annual growth of the forest.
- Lands that are being conserved as part of an Indigenous Protected Conservation Area may also be eligible to undertake a forest carbon offset project.

Forest Carbon projects on public lands subject to forest management licenses

- Requires an agreement with the Province on ownership of forest carbon offsets. Precedent for this in BC Atmospheric Benefits Sharing Agreements.
- Offset credits can be generated by the Forest Management Area license holder in several ways:
 - a. Committing to forest management practices that sequester carbon and that go beyond regulated practices. This could include reduced-impact-logging, increased stocking of trees in under-stocked areas, extension of rotation ages.
 - b. Setting-aside areas within the license for conservation.
- In exchange for this commitment to new practices or conservation set-aside, offsets are generated and can be sold to regulated entities to generate what can be significant revenues.



To



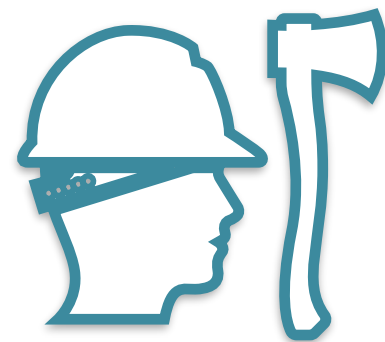
BENEFITS- NOT ONLY FINANCIAL



Education and Training



Biodiversity and Conservation Efforts



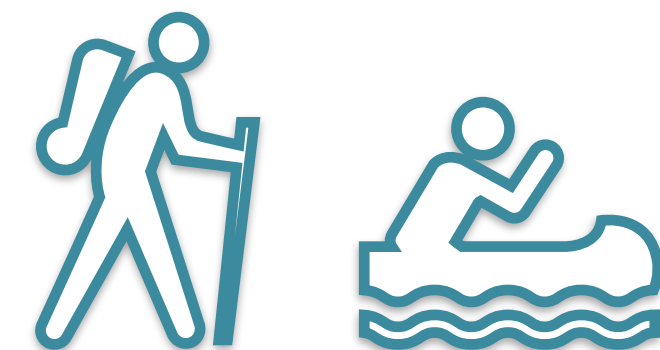
Job Creation



Clean Air and Water



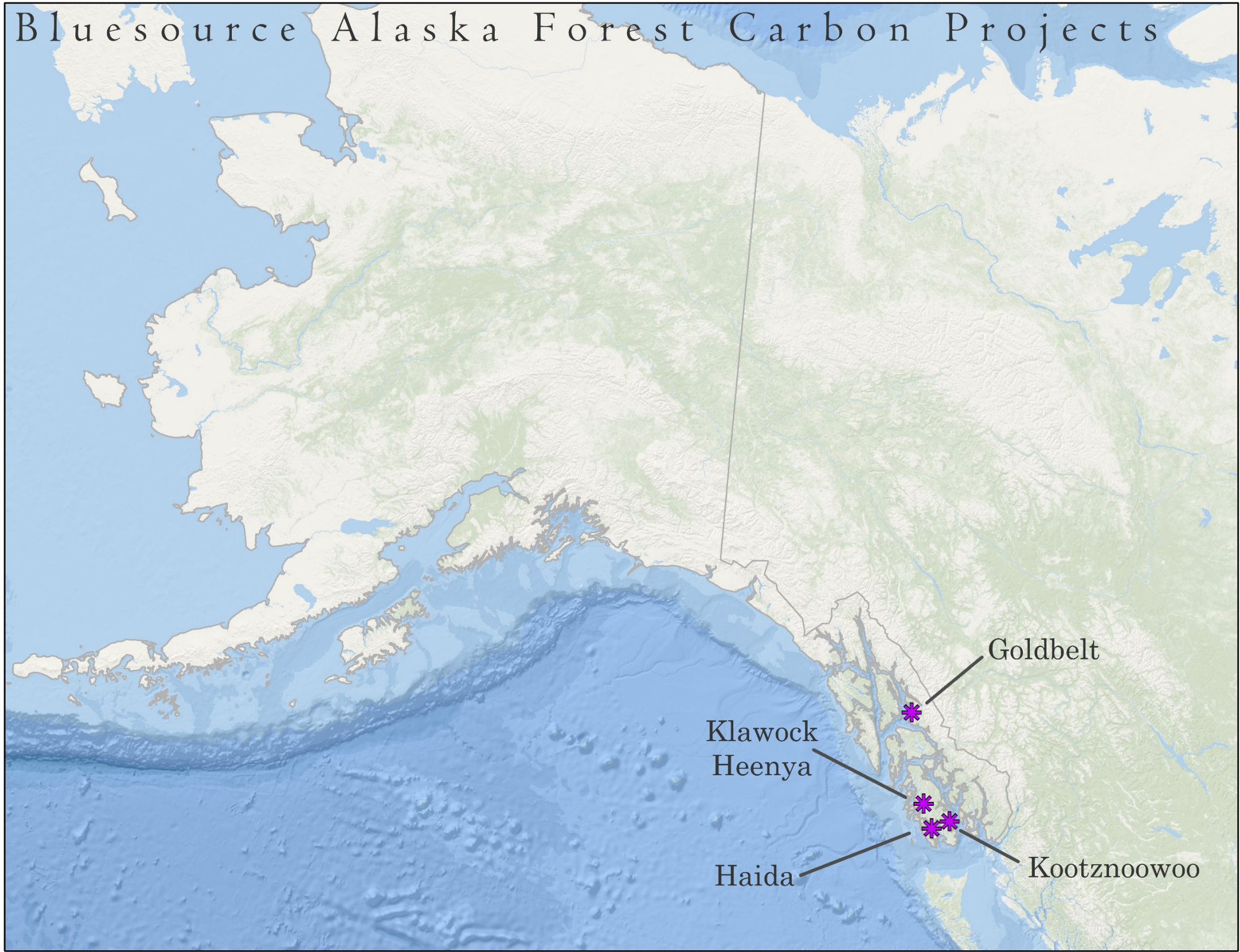
Financial



Recreation

2 | Success Stories

Bluesource Forest Carbon Projects on Indigenous Lands



Success Stories

SCIENCE

Yurok tribe hopes California's cap-and-trade can save a way of life



By TONY BARBOZA and BY TONY BARBOZA DEC 16, 2014 | 4:30 AM |



ENVIRONMENT

Sale of Carbon Credits Helping Land-Rich, but Cash-Poor, Tribes

By JIM ROBBINS MAY 8, 2007



State, tribe reach multimillion-dollar deal on carbon offset credits

GLEND A ANDERSON
THE PRESS DEMOCRAT | March 1, 2015



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