

# Community Supported Agroforestry-based Learning (CSAL)

## **The Concept and Rationale of CSAL**

by associates of the CSAL Network<sup>1</sup>

### **Introduction**

On the premise of improving social order, economic justice, and democratic governance in the world, an international network is forming called the CSAL Network, where CSAL is an acronym for Community Supported Agroforestry-based Learning. The term agroforestry refers to integrated ways to combine trees and shrubs with crops and livestock to increase the value of marginal land to benefit a diversity of life.<sup>2</sup>

The CSAL Network is envisaged as a virtual organization of individuals whose interests and expertise can contribute to the mission of Community Supported Agroforestry-based Learning: scientists, educators, agriculturalists, economists, mentors of youth, and others who wish to create opportunities for research, study, entrepreneurship, and lifetime careers in the interlocking disciplines of agroforestry. We, associates of the CSAL Network, believe that many students and teachers with ambitions to lead social change will be choosing this study area as fundamental to surmounting the major plights of our planet, namely the interconnected problems of food, energy, water, and climate change, in addition to jobs and income. By building a global virtual organization of experts in the areas of business, forestry, agriculture, engineering, agro-ecology, marketing, permaculture, and related fields, the Network envisages a growing capacity to improve community wellness at the most local level through learning integrated with earning.<sup>3</sup>

Farming communities around the world, having well-defined lands, deep cultural roots in the land, and natural resources that they aim to protect and develop, are in a position to be leaders of the forthcoming global struggle to preserve, rebuild, and enhance the planet's natural environment in the face of challenges arising from human degradation. The stakes are high: sustaining the quality of life for a diversity of living beings. These communities stand to prosper from this leadership, while preserving the cherished roots of their culture. People who have migrated (physically, socially, mentally, and spiritually) far from natural values will benefit also, because the results for the commons are inherently shared.

Schools on the forefront of social change aim to EDUCATE the LEADERS of the FUTURE. Ideas about how to accomplish this daunting task are changing. EDUCATE now involves

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<sup>1</sup> See [CSAL Network Biographical Notes](#).

<sup>2</sup> For a definition and evaluation of agroforestry, see <http://en.wikipedia.org/wiki/Agroforestry> and USDA's National Agroforestry Center webpage <http://nac.unl.edu/#about>.

<sup>3</sup> We resist the temptation to use the acronym for Learning Integrated with Earning because that would be LIEing.

hands-on work: managing, leading, and especially doing. LEADERS must use the not-for-profit sector as well as make the for-profit and public sectors aware that ALL sectors must somehow cooperate to serve the emerging needs of the Planet. As for the FUTURE, that's the world we'd all like to see -- ecologically sound, environmentally preserved, with good-paying, rewarding, honest work available for all.

In this document we propose that schools, cooperating with other non-profit organizations having an interest in improving education, take the initiative to create a CSAL program to benefit their Local Area. For this purpose an interested group of schools should form a Local Area School League (here called a LASL)--the term "league" suggesting a parallel with a sports league, which school groups often organize to support their sports programs.

### **The Rationale for LASL**

Food and health are likely to be central interests of schools forming a LASL. They may include boarding schools where faculty eat with the students, thus providing an intimate platform for the food-learning dialogue. Such Schools may well be located in rural areas that are rich in natural resources. Indeed, they may have started as schools that had working, educational farms to meet their own needs. This connection between growing food and education has been widely lost with the industrialization and globalization of food supply. The adverse effects on the health of students and youth in general are becoming priority concerns, especially in higher-income areas. On the other hand, poverty and neglect is also damaging to health. In the opinion of many, restoring the nexus between growing food, energy conservation, and education would produce gains in income, education, health, and general well-being of the diversity of life on the Planet.

Toward these basic goals, secondary schools and colleges are increasingly venturing into "farm-to-table" activities. However, they are experiencing difficulty in finding sufficient labor and capital to grow their programs in such activities, which are deemed not essential for passing standardized tests typically imposed by governments and accrediting organizations. Through local initiatives these activities need to be scaled up and made more efficient. If this can be achieved, food and its origin will become a more important part of school curricula. Coursework will include food politics, the history of food and the evolution of taste, agroforestry, soil science in the context of food production, plant biology, plant breeding, anthropology, geomorphology, geology, and wildlife ecology. The arts and social activities may be incorporated, providing opportunities for students to express themselves and their values in the face of the inadequate systems that are now dominant.

Practical benefits to the schools affiliated with a LASL will be products that they can use: foods, agribusiness and forestry products, materials, and services provided by the students. The schools may also get better water management and cheaper power from some combination of biofuel crops, wind and solar technology, and agro-waste conversion. These are growing "green" industries using new technologies whose dissemination will be speeded by the CSAL Network.

## **The LASL As an Investor**

Through the innovative corporate structure discussed below, the LASL becomes a partner and investor in for-profit Community Supported Enterprises (here called CSEs), from which it receives income to support relevant training and practical business experience for its students. In this commercial arena the LASL will cooperate with working educational farms whose mission is to "produce and educate." Foods and agribusiness products marketed by the LASL with these farms will command higher prices because the buyers know that their money is being used for local wellness. The LASL may use a percentage of such income to fund research that challenges prevailing myths, exposes malfeasance, identifies market failures (harmful externalities), and generally lends itself to community building and wellness.

Eventually the LASL stands to raise funds from alumni who received their start in enterprises that taught them to lead and learn by doing. Some of these high achievers may become leaders of the affiliated schools or of businesses in the local service area, feeding their experience and wealth back into the local economy.

As the LASL builds its "human capital" and "knowledge capital", it contributes a rising flow of talent to the CSEs in which it invests. This capacity building underpins a growth engine for sustained growth of jobs, income, and wealth for the long-term benefit of the Local Area.

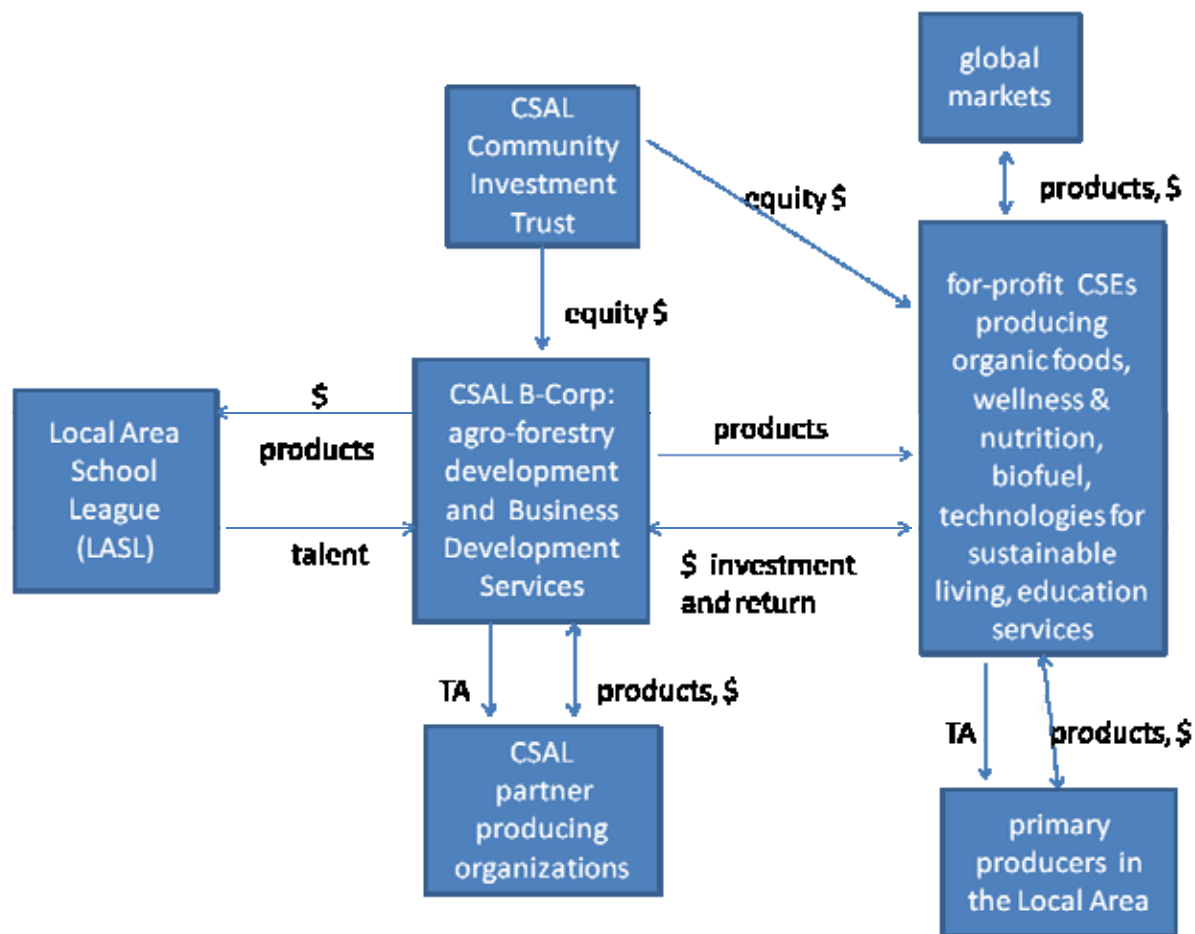
## **The Enabling Corporate Structure**

The growth engine of a CSAL program is summarized in the following chart, which depicts how a LASL creates and (partly) owns a for-benefit corporation here called a CSAL B-Corp (or simply The Company).<sup>4</sup> This entity is a mission-driven company devoted to research, experiential learning, and testing in agroforestry, including linkages with opportunities for profitable business that are consistent with the goals of the LASL and its co-owners.

The Company provides seed finance for start-ups and early-stage investment along with comprehensive Business Development Services (BDS) to a growing clientele of for-profit Community Supported Enterprises (CSEs). The chart suggests that these enterprises might profitably produce, for instance, a variety of foods (organic meats, vegetables, dairy, aquaculture products), wellness and nutrition products, biofuel such as pure plant oil for diesel, applications of new technologies for sustainable living (conservation, "green schools," waste and water recycling, etc.), plus relevant education and information services.

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<sup>4</sup> For information about Benefit Corporations in the USA, see [http://en.wikipedia.org/wiki/Benefit\\_corporation](http://en.wikipedia.org/wiki/Benefit_corporation) . California and 12 other states and Washington D.C. have passed B-Corp law. Legislation in many other U.S. states is pending. B-Corp law fits the requirements of the CSAL growth engine and should be used by the CSAL Network if and when feasible.



The CSAL B-Corp aims to build income, wealth, and well-being on a sustainable path that is consistent with the interests of The Company’s shareholders and the local community. Toward this end, the Company’s portfolio should grow to include enterprises that realistically expect to earn a high return on investment, justifying the substantial investments typically required to achieve efficiency of scale. This return is to be appraised on financial, social, and environmental criteria that are consistent with the goals of the B-Corp. Thus the B-Corp is a “triple-bottom-line company,” in the jargon of current development economics.

To integrate learning with earning, The Company invests in promising business start-ups that are led by graduates of the LASL. Typically these leaders with entrepreneurial ambitions derive ideas, motivation, basic skills, and connections while in school, and then further develop their capacity for entrepreneurial leadership while engaged in practical work after graduating. The Company’s Business Development Services (BDS) Program identifies promising business start-ups selected from this cadre and nurtures them over a period of up to two years.<sup>5</sup> Then, over the following five years, the BDS Program provides a mix of needed resources to well-managed,

<sup>5</sup> In its mentoring capacity the BDS Program rigorously uses state-of-the-art techniques to guide the work of carefully-selected youthful leaders. It is now using the book “Disciplined Entrepreneurship: 24 Steps to a Successful Start-up,” by Bill Aulet, John Wiley & Sons Inc., 2013.

profitable, early-stage enterprises. This early-stage investment, combined with mentoring and other technical assistance, enables these young companies to become share-issuing corporations that can attract private equity capital.

The leading source of private equity capital in a CSAL program is the Community Investment Trust, or CIT (see top of the chart).<sup>6</sup> A CIT invests equity in incorporated early-stage CSEs that are contracted clients of the B-Corp. These enterprises must qualify for such investment by the Trust's demanding criteria, as applied by the Trust's independent Fiduciary. The Trust's investments typically leverage co-investment and loans by companies and agencies that endorse the values, principles, and purposes of the B-Corp. Co-investors bring specific technical and professional capacities as well as funds for taking early-stage enterprises to more efficient scale.

The CIT's investee CSEs may be located on land owned by the B-Corp, or on land owned by the LASL and other shareholders, or on cooperating landed estates: farms, ranches, plantations, trust lands, reservations, lands protected by easements, public lands. The core purpose of the CIT is to help the leaders of these Community Supported Enterprises to take their small-business operations to efficient commercial scale without an excessive burden of debt. The CIT can leverage the operations of micro- and small-business loan funds. On the other hand, large-scale finance of business infrastructure and development projects, which governments and large corporations undertake with mainstream funding, will achieve more impact on the ground in local rural areas if combined with CIT finance and CSAL programs serving these areas.

To facilitate its educational and commercial functions, the CSAL B-Corp cooperates with partner producing organizations (farms, ranches, etc.), as indicated in the chart. These partners are likely to include both for-profit businesses and non-profit organizations that complement the social goals of the B-Corp. Community-based organizations, such as churches, clubs, public-service agencies, as well as businesses, comprise the "Sustainable Local Enterprise Network" that helps to ensure long-term support for the B-Corp and its mission.<sup>7</sup>

Over time, as the right side chart portrays, CSE investees of the CIT may source their inputs in independent primary producers of the Local Area. These producers stand to benefit from technical assistance and access to global markets that the CSEs can provide, as they grow to connect with global markets. Once a CSE has proven its capacity to organize production of primary inputs on a scale sufficient for sustained high profit, larger commercial partners may seek to invest to achieve an even more profitable commercial scale. In the long run, the original leaders of these CSEs will have opportunities to sell their equity to such large-scale investors for capital gains. Being a substantial stockholder, the B-Corp will use its financial and moral influence to ensure that these changes in ownership sustain its values, principles, and purposes.

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<sup>6</sup> Community Investment Trusts are documented in the PowerPoint show "[Introducing Community Investment Trusts.](#)"

<sup>7</sup> Research on Sustainable Local Enterprise Networks (SLENs) documents their importance for local-area development. For an introduction to SLENs, see "Creating Sustainable Local Enterprise Networks," by David Wheeler et al, MIT Sloan Management Review, Fall 2005.

## **Agroforestry As a Learning Platform for Community Supported Enterprises**

The CSAL B-Corp must have clear title to the long-term use of land that can accommodate an agroforestry plantation on a scale necessary to contribute substantially to the sustainable growth of income and wealth of the beneficiary Local Area.<sup>8</sup> The Company uses this land and other resources to build experimental agroforestry farms. It may partner with cooperating farms and agribusiness organizations in the Local Area. These partners may use the Company's research and technical assistance to enhance their productivity, and the Company may also help them with value-added processing and marketing. The Company may gain by outsourcing various inputs to these local groups, thus leveraging its own resources to build scale for competitive marketing.

Businesses based on agroforestry are intended to be profitable in areas where poorly maintained or damaged land (whether due to poverty, population pressures, mining, unsustainable practices, or natural causes) is unprofitable for growing food. Agroforestry technology is designed for use on such marginal land and also can be used to enhance productivity and profitability on fertile soil and/or in less impoverished areas. In such places CSAL programs may help local groups to employ agroforestry techniques, using various sizes of land available to them, to produce both food and inedible products of high value.

A leading example of an inedible product is Pure Plant Oil Biofuel (PPOB). PPOB, a substitute for diesel fossil fuel and directly used in diesel engines, is produced both from the nuts of long-lived oilseed trees and from perennial crops. Various species of oilseed trees adapt to extremes of climate and soil. Using marginal land, a CSAL B-Corps can build early and continuing revenues from sales of such perennial and annual crops that are integral to agroforestry planning. The products include high-quality foods, fuels, herbs, pharmaceuticals and other produce that may be sold to local stores, schools, clinics, and other institutional buyers. The benefits to the residents of the local area can be direct and quick as well as lasting.

## **Results for Agroforestry-based Learning**

A CSAL program may be expected to benefit learning by:

- Engaging in outreach to the rural and landed sector of the local economy (farmers, agribusiness, forestry and mining companies) and conservation- orientated foundations to promote commercial applications of research in both the food and non-food sectors
- Planning and implementing appropriate teaching tools for benefit of the future owners of local-area enterprises in these sectors
- Identifying and conducting location-specific research on new species (such as oil-seed trees)
- Participating in research having priority in public policy, such as water and energy conservation, biosphere protection, and reducing emissions of greenhouse gasses
- Creating and operating hands-on training at ground level for labor and management for field operations

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<sup>8</sup> Participatory agroforestry is explained in the document "[Participatory Development of Agroforestry Ecosystems Including Oilseed Trees.](#)"

The LASL and other schools that become affiliated with a CSAL program should be leaders of this learning, given their ability to gather, distill, share and use information. With the funds for education earned by its B-Corps and with learning from fieldwork, these schools can produce a continuous and detailed flow of information: data and other findings from field applications of agroforestry that eventually may enhance or even inform genomic research in the world's leading research laboratories. Practical lessons will be learned from both failure and success in all aspects of the field operations. These data and these lessons will find their way into the education products of CSAL-affiliated schools.

These education products may include (1) facilities and opportunities for educator training, interns, and volunteers; (2) a living laboratory for distance education and "electronic classrooms"; (3) websites that provide the world with free access to all papers authored by the participating schools; (4) an edited series of papers (possibly a professional journal) to convey key results to global professional audiences; and (5) teaching modules on new environmental science, such as oilseed tree biofuel, for integration with existing classroom and distance-education courses. The CSAL Network will help to make these education products readily available throughout the world.

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