



Planet Green Force Center Ananda College, Sri Lanka

Set for a Grand Opening in 2026, the Planet Green Force (PGF) Center at Ananda College, Sri Lanka is envisioned as a one-of-kind edutaining experiential structure that will become the “Ananda Standard” for sustainability, synonymous with “World/Gold Standard.” Designed by Ananda alumnus architect Muditha Jayakody, it embraces the standards laid out by the former UNESCO Green Academies as well as the latest sustainable construction techniques.

The pillars of water security, waste management, clean energy, and biomass production (growing/raising food for food security and biofuel production) championed by the former UNESCO Green Academies, will be incorporated. The programming and physical structure together will embrace UNESCO’s Climate Science Literacy initiative and the United Nation’s Sustainable Development Goals (SDGs), specifically #1 No Poverty #2 (zero hunger) as food security will play a major role, #3 (good health and wellbeing), #4 (quality education) would take center stage as “green word of the day” will be embedded into the curriculum, #6 (clean water and sanitation), #7 (affordable and clean energy), #9 (industry, innovation and infrastructure), #11 (sustainable cities and communities), #12 (responsible consumption and production), #13 (climate action), #14 (life below water) and #15 (life on land) ,#16 (peace, justice and strong institutions) and #17 (partnerships for the goals). With UNESCO and UN involvement, we have the opportunity to be on the world stage as an inspirational project that will be emulated and replicated, potentially making a profound difference in the way the world’s youth are educated such that climate science literacy is ubiquitous and sustainability is intuitive and innate.



One of our goals is to transform from climate experts/activists' call for behavior change to *emulate behavior* in the future.

The PGF Center will be a learning, teaching, and research hub – a living laboratory that embodies the Planet Green Force vision. It will turn out green “torchbearers” / “Green Ambassadors” – advocates to combat climate change – and address many of the United Nation’s SDGs as noted.

While engagement and results that will generate from within the walls of this building are paramount, it is important to showcase the building itself as an innovative landmark.

The PGF Center will be visually stunning, depicting green artistry in addition to the latest technical features and highest level green construction including water conservation, waste management, operation exclusively on clean energy, energy efficient building design for optimal building performance, 360 degree features, use of recycled materials wherever possible, cradle to cradle materials, etc.

Students and teachers of Ananda College will be engaged in construction and every phase of the project will be a learning opportunity. This facet can be replicated around the world.

The two-level, 4,000-square-foot PGF Center design is envisioned as follows:

The terracotta building façade will open to an atrium entrance. This arch-shaped entryway will feature “Planet Green Force” in semi circle with logo on top. On either side of the entrance, there will be a flat surface where a green message can be inscribed, either designed by an art student or a digital LED screen to project informative video in a loop, including a carbon calculator as well as showcasing collaborations/partnerships. A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. The PGF Center at Ananda College will emulate this with many additional partnerships and collaborations such as UNESCO, CIC, Lions Club, etc.

Below the inscription will be a dedication of the building to **Colonel G.W. Rajapaksa and Lal Dissanayake** – two exceptional and much beloved principals. (SDGs #4, 9 & 11)



Displayed on the outside façade of the building will be the United Nation's 17 SDGs and 27 Climate Science Literacy posters. The posters will be illuminated, and the building flood lit, powered by solar. (SDGs #7, 13)

As you enter the atrium lobby, the centerpiece will be a waterfall that re-circulates harvested rainwater and is powered by solar. The backdrop will be a photo of **SINGHARAJA** – a UNESCO biosphere reserve.

Accentuating the importance of clean water, water fountains that make drinkable water from humidity, if possible, will also be featured. As well as triple filtered & UV light processed drinking water (only reusable containers will be permitted, absolutely NO single use plastics will be allowed in the PGF Center). Living walls will feature edible vegetation wherever possible. The entire length of building will have a speaker system that can narrate in a loop when edutaining tours are conducted. (SDGs #2, 6)

The sound of the waterfall is crucial and can be backed up with a sensory sound wave audio loop. To the left of the waterfall will be an “Evolution of Soil” exhibit and to the right will be a video on loop on the importance of food security, with additional exhibits located on this level, consisting of approximately 2,000 square feet.

SOIL EXHIBIT

The “Evolution of Soil” exhibit (8-10 feet area) will be a museum-like glass enclosure. The exhibit will be designed by geology teachers highlighting the evolution of soil, the importance of regeneration of soil (practice of building or rebuilding healthy soil) and continuous nurturing the underground ecosystem - plants, animals, fungi, bacteria, etc. Soil regeneration is the process of improving the quality of soil by adding organic matter, which helps to improve drainage, water retention, and nutrition for plants. Soil chemistry will be explored and there will be a soil testing apparatus. Composting plays a major role. (SDG #2, 3, 4)

COMPOSTING

Hence, the next station will showcase composting methods. This will be a hands-on demonstration area including a variety of composting methods such as accelerated systems like GORE-Sustainable Generation, agricultural methods such as vermiculture, etc. (Vermicompost is the product of the decomposition process



using various species of worms, usually red wigglers, white worms, and other earthworms, to create a mixture of decomposing vegetable or food waste, bedding materials, and vermicast.) (SDG #2, 3, 4)

GARDENING TIPS

The next station focuses on gardening tips and a demonstration area to aid with the **grow bags** students are expected to care for at home. This is extremely important resource center for the students as this is the main measurement of yield, harvesting results with two-four grow bags provided to each student. “Do’s and Don’ts” when using grow bags for cultivation will be visually depicted as well as highlighted in teaching (including a laminated or similar rack card with instructions in Sinhala and English). This is also where agro-economics, entrepreneurship comes into play.(SDG #2, 3, 4, 12, 15)

VERTICAL GARDENING

Next will be a demo area featuring vertical gardening **with hydroponic/green walls**. (SDG #2, 3, 4)

AQUAPONICS

The largest section will be to Aquaponics – the future of food security. It will highlight the symbiotic relationship between marine life and land. (SDG #2, 3, 4, 6, 14)

The second floor (top level) of the PGF Center, consisting of approximately 2,000 square feet will include:

LIVING LABORATORY

The highlight will be a living working laboratory set up with stadium seating with desk top (6-7 rows with 6-10- seats in each row.

Research and teaching will be the highlight. In this section, tables/desks will have dry erase surfaces where notes/ideas can be written before entering into computers. To further reduce the use of paper, walls will feature dry erase surfaces. A few computer monitors will be installed for data uploads.

The front teacher podium/counter to include experiment/lab equipment, sink, lighting, electrical outlets, built in refrigerators, induction cook tops, cabinets for storage, etc. with large screen for projecting. A mounted camera would allow live



streaming (as well as taping) of teacher demonstrations. (Other features as determined by teachers.) (SDG #2, 3, 4, 12, 13, 14, 15)

An example of research could include soil experiments utilizing phosphorous (P), potassium (K), nitrogen (N), sulfur (S), calcium (Ca), magnesium (Mg), iron (Fe) additives, etc. to increase yield, to speed germination, moisture control, etc.

Also on the second level will be a greenhouse, a storage room and office space with 2 desks. LED screens will project informative video in a loop, carbon calculator, etc. (SDG #2, 3, 4, 7)

Solar panels will be installed on the roof along with a water collection system. The water tank will be buried under ground to reduce loss of working space and keep esthetics of the building. (SDG #6, 7)

Throughout the building there will be reliable and constant high-speed internet access. Washroom and toilet utilizing water conservation technology including the use of sink water for toilets. (SDG #6, 11, 12)

An outside staircase will lead to a battery storage unit. We will include battery to be able to operate for 24—48 hrs (or a solar powered generator as a back-up). (SDG #7)

The PGF Center will be open to students from other schools for a few days a week, staffed by Ananda alumni who will be trained as volunteers.

A full time academician/agriculture expert will be hired to manage the operation. The annual operating expense budget will be developed, including the establishment of a sustainable revenue/sponsorship model for eventual self-sufficiency. (SDG #7, 11, 13)

It is intended that Planet Green Force, including the PGF Center, will be a model to be emulated and replicated globally based on the Ananda College blue print.

PGF answers the universal call among climate activists: “we must change our behavior if we are to save our planet.” We will make a difference starting immediately and it is our fervent hope that in 10-15 years time, behaviors that support sustainability and climate science will be ingrained so that the next generation will grow up with deep-rooted green values, embedded in all they do.

