

22 April 2020

Earth Day

International School in Genoa
Ecoschool

Sustainability Progress Report 2019-2020

Subject:

This report will address the following aspects of our work in progress toward sustainability:

- 1. 2020 ISG Survey for Green Works, student leadership and student engagement**
- 2. Projects accomplished**
- 3. Future projects**

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ISG staff

ISG students

ISG lunch program (Pedevilla)

ISG cleaning services (Sodexo)

ISG environmental architect (Veronica Simeoni)

ISG agronomist (Matteo Incerti)

1. 2020 ISG Survey for Green Works, student leadership and student engagement

THE SURVEY (February 2020)

ISG officially engaged in earning the certification of eco-school from the Federation for Environmental Education (FEE) in two years' time. The application was completed in December. The school is committed to a community, student-led, focused action plan: the whole community contributes to it.

Students created a school-wide survey, brainstormed the sustainable projects it included, and kept the community informed via the school media team. Our sustainability plans for 2019-2021 are oriented by the results of the survey which gave the entire community the possibility to express its preferences on our projects and also new ideas to help make our eco-school in training a leader both in pollution reduction and in research/problem-solving. All proposed ideas are organised in the appendix.

This is the link to the survey, which displays the results:

<https://docs.google.com/forms/d/1SBqNQnRM5icjohC1IM9GSQJrCwb8p9npAtxH0mCUhGQ/edit>

There were 184 responses, representing a large number of students and teachers, as well as a group of motivated parents and some representatives from ISG services. The results encourage us to continue with the current projects, exercising wisdom when/if investing in infrastructure as we do not own our facilities.

STUDENT LEADERSHIP AND ENGAGEMENT

We have been working with a student-teacher Green Team.

Early Childhood-students have been practicing what we preach with recycling and modelling good behaviour. Together with their Elementary School buddies, they helped label recycling containers with clear indications of what belongs where (humid is not so intuitive). Videos of their recycling behaviour were shown during assemblies.

Elementary-students have been helping Early Childhood, studying internal recycling optimisation, researching sustainability across subject areas and organising exhibits about their findings.

Middle School-their Green Team members led a secondary assembly on sustainability and produced a video on school recycling, with particular attention to the lunch program. 6th and 7th grade students participated in an AMIU (city waste management) field trip with their science class.

9th-10th grade-they have been the backbone of our school-wide recycling program. They carried out ALL of our school recycling until January. Now that we have moved to 0 generic waste in offices, classrooms and hallways, they have been sharing the recycling with the cleaners: students empty paper recycling containers once a week while cleaners empty humid containers daily and plastic/metal recycling containers as often as needed. They brainstormed some of the projects included in the survey.

IB Diploma Program-11th grade students participated in an AMIU (city waste managers) field trip in which we found out specific answers to make sure our own recycling program is both aligned and optimised with city-wide initiatives.

Some 12th grade students produced the survey and its promotional materials.

A growing number of 11th and 12th graders are focusing/connecting their IB papers to sustainability issues. This year students were exposed to at least one unit focused/connected to sustainability in all subject areas. Many teachers are making sustainability a recurring theme in their teaching.

2. Projects accomplished

ORGANISATION

There is a student-teacher Green Team, with Early Childhood, Elementary and Secondary representatives+an overall coordinator/facilitator. The entire staff is kept informed via staff meetings, emails and shared documents; all documents are shared with the entire staff. Since we officially applied to the FEE Eco-schools program, the Board decided to adopt sustainability as one of the flagship values and features at ISG: there is a dedicated Board member for sustainability projects. She works with the Business Manager on the feasibility of the projects and they are regularly kept informed on the developments.

INFORMATION

We created a flow of organisational information between the Board of Directors, the Business Manager, the School Leadership, the School Services, the School Consultants (agronomist and environmental architect) and the Green Team, with recurring all-staff and all-student involvement. Information has always been made available in complete transparency to all parties involved via CC or shared google docs. This enabled the school to move on with shared decisions and to avoid dead-ends. It is not yet a well-oiled system with clear roles and responsibilities, but it has so far served the purpose of starting our self-studies and launching our first projects.

ACCOMPLISHMENTS

1. We now have an **explicit school commitment** at all levels.
2. We further developed our school mission with a **sustainability mission**: From Respect, Responsibility, Reaching for Excellence (the ISG mission) to **Reduce, Reuse, Recycle and Return** (via action, problem solving and research).
3. We have made it a tradition to **participate in global initiatives for sustainability** such as *Fridaysforfuture with school action* that is **both hands-on and academic**. Together with varying hands-on initiatives, we make sure all our academic lessons on those days have a focus or a clear connection with sustainability.
4. Elementary students **promoted awareness of sustainability issues with exhibits**.
5. The Green Team led periodic level **assemblies to discuss sustainability and promote ISG sustainability projects**.
6. We realised that, with the exception of bathrooms and the kitchen, all of our school waste could be recycled.
7. We succeeded in having AMIU (city waste management) station plastic, paper and humid outdoor recycling urban containers **INSIDE** our campus. This enabled us to put students on task. AMIU also donated enough indoor recycling containers to equip all classrooms, offices and common spaces with plastic, paper and humid recycling containers.
8. With all this in place, starting in February, **we eliminated all undifferentiated waste containers from the school, with the sole exception of bathrooms and the kitchen**.

We still have to optimise our container distribution and to negotiate the supply of compostable bags for humid containers with our cleaning services, but the big move has taken place: **we now produce next to no undifferentiated landfill waste.**

9. **Coffee cups** from machines **are now compostable.**
10. We are **collaborating with our cleaning services for** the distribution of **recycling** responsibilities; the company also guarantees that their **cleaning products are eco-labeled.**
11. We are **collaborating with our lunch services for** the organisation of **recycling** and the **reduction of plastic** waste: they eliminated plastic wrappings, are in the process of substituting yogurt with organic yogurt in compostable containers and will purchase compostable single-use plastic plates, cups and cutlery for the cases in which the dishwashers cannot be used. They confirm they take leftover food to the humid recycling containers outside the kitchen. They have introduced **organic products** in the menu: oil and eggs.

3. Future projects

All future projects are pending approval from the Director and Board for commencement in the school year 2020-2021.

A Consolidating a sustainability system. It is currently too dependent on individual personal traits and good will. Over time, we would hopefully develop a structure that automatically enables anybody to take anybody else's place and bring the projects forward. A flexible, can-do mentality is important, but there must also be a system that facilitates progress more automatically.

B Further improving our lunch program. Food is one of the main causes of polluting emissions and we must make a specific effort in this department. Through their ISG representative (Stephen), Pedevilla (the company managing our lunch program) has shown promptness and sensitivity regarding sustainability issues. They already promote food variety in terms of styles (regional variations, range of recipes, vegan/vegetarian alternatives) and of ingredients (a wide range of vegetables and main courses). They intend to further look into the menu to reduce emissions while maintaining / improving the quality of nutrients. They are examining, for example, the possibility of introducing organic products such as rice (industrial rice emits large amounts of methane) and the reduction of high emission animal ingredients (such as beef) in favour of high quality vegetable alternatives and/or less polluting animal alternatives (such as eggs, cheese, pork or chicken), with an extended preference for organic products.

C Further optimising the sustainability of our cleaning program by completing the negotiation with Sodexo regarding compostable bags for our humid recycling and by streamlining the current recycling system to incorporate all external areas, including the sports field.

D With the help of Veronica Simeoni, ISG school mother and environmental architect who offered the school her services, we will look into **optimising our energy, gas and water contracts and consumption**, as well as benefiting from whatever public support we can have for making virtuous environmental changes. Mrs Simeoni also offered to speak to our students to teach them how to make sense of energy and energy bills. She is also active in helping dig water wells for communities in need around the world and with her help we also hope we can learn how to better understand the complex connection between resource management, economics and sustainability.

E With the help of Matteo Incerti (agronomist, owner of our neighbour organic garden centre and ISG alumnus) we will first **make our green areas safe** by cutting down dead palm trees and pruning dangerous branches. This job is a must and, had it not been for COVID19, it would have likely taken place before the end of the school year. We will also look into re-building a **greenhouse** and **optimising the areas around the sports field** so they can be used for

student-tended **orchards, tree planting, play areas or sports facilities**. Mr Incerti also offered our teachers and students the option of directly using his garden centre's greenhouse. So our students will be given the possibility of **using a proper greenhouse for their studies** and projects one way or another.

F Many **ideas** have been **offered by the community** and can be seen in the appendix below. Some we are already working on, others offer new perspectives. Students, staff and leaders must assess them and see what can be done.

APPENDIX: Proposals from Survey-takers

They are here arranged in the 4 elements of ISG's sustainability mission (**reduce, reuse, recycle and return**) and then further broken down into **infrastructure, organisation, research**.

1 REDUCE

Infrastructure

- Increase use of bicycles and create a bike parking area
- Have students keep an orchard and either eat what they grow or sell it, donating the proceeds for charity
- Put ISG's lights for emergency stairs exits\areas at night time to be set off based on the school's alarm times
- Optimise solar light (windows and mirrors)
- Optimise heating/cooling system (now it is either on or off in large areas)
- Eliminate lunch service and bring lunch from home: there is already so much daily food waste in all families
- A paper free school
- More water dispensers with cooling system

Organization

- Reduce FIRST, then reuse and recycle
- Every single person can reduce waste and pollution, thus improving the quality of life on Mother Earth. We must all do our share
- A spending review regarding gas/water/energy suppliers, preferring eco-friendlier ones
- car sharing and car pooling
- Where can we save by switching to LED?
- Learn how to not be wasteful with resources; for example when washing hands not have the water running when not necessary, use adequate amount of soap, try to use only one paper towel by shaking the hands properly before drying, reduce our consumption
- Further reduce paper use
- Further radical reduction of printed materials and move study books to online platforms
- Limit white paper use such as allocating a fixed amount of pages\prints to all Staff per Class Grade
- Getting rid of the paper sous-plat in the cafeteria to cut-down on paper use
- Reduce wasted food in the cafeteria
- Reduce use of plastic in the lunch program
- Avoid single use plastic wrappings
- Change the vending machine food/drink options to more sustainably packaged ones. Most of the rubbish at school is caused from wrappers and plastic bottles from the vending machine.
- Ban single use plastic bottles from school

- Removal of bottled water (and possibly all drinks as an encouragement to drink water) from the vending machine.
- Use electronics less so that we do not waste energy
- Provide snacks for students that are plastic waste free (eg. fruit/biscuits); perhaps parents could pay for them through the lunch system. Then there will be no plastic waste at snack.
- Stop providing glitters and plastic art supplies to the kids
- DON'T start selling the aluminium water bottles, it isn't more environmentally friendly in production of those bottles and everybody has enough reusable bottles at home. Educate the children, and the parents why they shouldn't use the plastic gloves in the supermarkets!!!!
- Grow and eat sustainable food
- Schools should only give vegetarian food

Research

- Analyse costs and possible reductions of electrical consumption with yearly monitoring; study possibility of solar shield (ecobonus); study implementation of domotics to monitor waste
- Study, compare and contrast yearly expenditures for gas, electricity and water
- Study which virtuous behaviours are more virtuous (eg do you pollute more by washing dishes or by using single use compostable plastic?)
- Study cutting edge projects of eco-friendly cities
- How do different sources of pollution compare with each other in terms of environmental impact?
- What is the difference in carbon footprint between a non-vegetarian and a vegetarian?
A vegan?
- Learn what we can do at home to reduce and optimise consumption

2 REUSE

Infrastructure and Organization

(Create/organize manageable space and time so as to)

- Optimise the use of our facilities (eg outdoor spaces that can be cleaned up and used)
- It would be great to make use of the courtyard behind the school. Clean it up, set up tables and areas for outdoor classes. It could be beautiful
- Improvement of green areas; cleaning, pruning and adding plants and flowers; covering side and top of playfield
- Organise flea/free markets at the school to recycle/circulate toys, books and clothes
- Promote book sharing through open bookshelves, clothes swapping, garage sales
- Upcycle as much classroom material as possible before placing new orders (every year the cleaning-emptying of classes originates huge piles of discarded items that end up in the trash, these leftovers items could all be part of an open selective up-for-grabs fair
- How about a book swap? Our students have been buying the same Italian reading books every year. Some of them have siblings, and yet parents need to buy a second copy of the books they already own. Involving (for now) parents from 3rd to 5th grade, we could ask them to bring to school the Italian books their kids read during the year to pass on to the next group. This would save some trees and, why not, some money! Any extra books could be collected and we could put together a second-hand Library the kids can have access to in case they forget their book at home or somehow lose it.
- In case the furniture is currently owned by school, consider for the next round of re-furnishing to change to a furniture leasing agreement to ensure effective recycling of the depreciated items.
- Use some of the throw-away paper as scrap paper or for protection purposes e.g. in the greenhouse
- Rainwater for the green house
- Repurpose: figure out new ways of using disposed materials; collect for free, transform and find a new purpose/sell
- Have students make team projects using recycled material
- Offer portions of unsold lunches (for a price or for free) against presentation of reusable personal containers
- Donate unsold lunches to charities who come to collect it
- Use recycled paper for printers
- Use eco-friendly gadgets such as sprout pencils or washable notebooks. Sprout Pencil: instead of buying pencils that will end up being thrown away we could invest money into the Sprout Pencil that we students can use and when the pencil is too short you turn it upside down and let the seeds grow that were stored in the end of the pencil. Cost: 10.95 for a packet of 5. Time frame: a week from ordering. Their website: <https://sproutworld.com/>

Research

- Analyse (i) how long it takes for our energy saving projects to cover their own costs (ii) when they can start producing money/energy (iii) how the different projects can integrate each other
- study the ethical principles underlying sustainable behaviours vs standard behaviours,
- study the connection between such ethical principles and economic principles, connecting them to the school mission of Respect, Responsibility and Reaching for Excellence

3 RECYCLE

Infrastructure and Organisation

- Re-teach the school how to recycle
- Distinguishing between avoidable waste, unavoidable waste and recyclable waste
- Make recycled paper with students
- A plastic recycling machine
- Ambitious, innovative projects like Pavegen (energy generating device from footsteps) would engage the student community to a high extent, I hope ISG keeps these in mind in the long run, should we ever receive external funding/sponsorships.
- Prefer goods wrapped in paper
- Sturdier recycling bins than our cardboard ones
- Filter seawater
- Recycling of trainers that are normally thrown away in unsorted waste (they are collected at our nearby Coop, floor-2)

Research

- How can plastic be recycled locally?
- Study what happens with the materials that are sent to city recycling
- How can consumer pressure support virtuous public management choices?
- Create a recycling account for everybody
- Invent a plastic recycling machine

4 RETURN

Infrastructure

- A thorough green audit of the school
- Present sustainable projects and proposals to the city mayor
- I find the "smart floor" an amazing project, though quite expensive! I read about an Italian startup that also developed that type of floor (veranu.eu). Maybe you have already considered the option, I just wonder if the cost could be lower... I would like for some students to carry out a research project in this area, with the goal of making a concrete proposal to the school or, even more exciting, to our city mayor - e.g. investigating the feasibility of implementing energy floors at the Brignole station or at the aquarium..?
- Composting program from lunchroom to greenhouse/orchard
- More plants in the classrooms
- Get a bee hive and plant flowers that bloom in different seasons - learn why bees are so important for us
- Study and implement perma farming techniques such as Lasagna technique
- Incorporate teaching of botany (plant biology) with growing edible vegetables, etc. in the refurbished greenhouse (classroom to table)
- Implement energy generating devices (like solar panels, eolic fans or energy generating floorings)
- Biodiversity on campus. What the campus has as well as what plants might thrive here.
- Celebrate everything by planting good plants

Organisation

- Clean up public areas
- Every person connected to the school for every aspect of school life should be made aware of their ability to affect the environment and operate accordingly
- Classroom study of tree biology (dendrology), survey of living trees surrounding the ISG, discussion of possibility of planting new, compatible trees
- Monthly or every other month workshops to let people know what is happening in the world and why it's such a big deal to save our planet because it isn't enough to just tell students to recycle, or to not use plastic but use reusable material. Or even just to use these workshops to tell the students the schools progress on the journey to be an eco-school.
- Use ENVIRONMENT PROTECTION as a focus topic or thematic background for our writing (testo informativo, testo argomentativo)
- Fund raising
- A marathon for sustainability (sponsorships for every lap)
- Share every positive result outside the school, because communication is a priority for the progress of sustainability

Research

- From age 2-3 take every opportunity to involve the students in every step to raise awareness about what it takes to reach the goal.
- What are some characteristics a leader should have to lead to an eco-friendly environment?
- Introduce Environmental Education for Sustainability as part of Science Education
- Incorporate environmental education in all subject areas
- Creating visual representations of numerical statistics related to recycling or energy use, using bar graphs, pie charts, best-fit modelling on the calculator, etc... .
- Research Energy Harvesting Technologies
- Research what animals/insects live around us, learn why each animal/insect is important for the local ecosystem, and find some and look at them with a loup. Plant tree/flower seeds and thereafter plant the trees/flowers.
- Take an environmentally informative field trip to make students more environmentally aware.
- Research project on how we can recycle electrical devices and examples around the world.
- Plenty of suggestions can be found on other sites: e.g., <https://gosunbolt.com/green-campus-sustainability-ideas/> and EU grants: https://www.welcomeurope.com/european-funds/eco-schools-417+317.html#tab=onglet_ details starting with simple things like switching the lights off when leaving a room, not leaving the door open when heating/air-conditioning is running ...
- Economics students study the correlation between CO₂ emissions and economic growth/development and the long term effects
- Is all organic food sustainable? Should we eat less meat? How sustainable is "sustainable" fish?
- Study transports (cruises, trains, buses), air pollution and urban environment
- The effect of plastic and waste to our community, what we can do to make a difference, and in general fields like these.
- Before investing it is also important to analyse benefits and costs, including the benefits of the intangible values of impact investing (not forgetting the impact of alternative investments that may be, in some cases, more dangerous than the original)
- Can political choices favourably affect the reduction of pollution?
- Can social choices favourably affect it?
- Can personal choices do it?
- How can such choices affect economies?
- Could they ever backfire on the environment in less-than-obvious ways?
- How does private transportation compare with public transportation in terms of emissions?
- How/when do electric cars, which pollute more when they are built, reach a compensation point with their cleaner performance?
- How much do they actually pollute?
- How can public transportation reduce its emissions?

- Which behavioural/consumption changes would have the promptest impact on slowing down the current acceleration in climate change?
- Is digital communication emission-free?
- If not, how much does it pollute?
- How does it compare with paper communication?
- Classroom study of tree biology (dendrology), survey of living trees surrounding the ISG, discussion of possibility of planting new, compatible trees
- What does an eco-friendly city look like?
- Is there a connection between epidemics and pollution? If so, what is it?