



**Report on schools' overall performance  
for the 2021 Hong Kong Awards for  
Environmental Excellence (Schools Sector)**

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## Introduction

As the technical consultant for the 2021 Hong Kong Awards for Environmental Excellence (Schools Sector), WWF-Hong Kong assessors conducted a total of 61 assessments in 17 pre-schools, 24 primary schools and 20 secondary schools, by on-site visits and through online conferences from July to August 2022.

Each assessment lasted for around one hour in school campus or with the aid of ZOOM meetings. The assessments were conducted based on the criteria listed in the ***“2021 HKAEE Schools Sector (Pre-school Sub-sector) Self-assessment Questionnaire”*** (for pre-schools) and the ***“2021 HKAEE Schools Sector (Primary and Secondary School Sub-sectors) Self-assessment Questionnaire”*** (for primary and secondary schools).

This report aims to share with the Hong Kong education sector the overall performance of the assessed schools in the 2021 Hong Kong Awards for Environmental Excellence. In addition, some feature examples containing best practices and recommendations are included, with a dual purpose to encourage further improvement in current participating schools, and invite non-participating schools to make reference of these cases and suggestions to kick-start their greening journey.

## 1. Pre-school Sub-sector

### A/ OVERALL OBSERVATION

A total of 17 pre-schools were assessed on-site between 14 July and 5 August 2022. Some general observations are summarised below.

#### i. **Green Leadership**

Majority of schools have formulated an environmental policy or adapted the environmental guidelines from sponsoring bodies, in which focuses were put on fostering the implementation of environmental education and adoption of environmentally friendly lifestyle among school members. The policy and guidelines are made known to stakeholders through different channels and are reviewed at least once a year.

All schools have formed teams responsible for environmental management and education, usually comprising of teaching staff under supervision of the principal and supported by the school management.

While all assessed schools have integrated environmental issues and activities into the school curriculum plan, less than half of them have embedded environmental education in their annual school plan and/or multi-year development plan.

Most schools have arranged training for teachers or non-teaching staff on environmental issues, including briefings or workshops organised by the sponsoring bodies, government, external organisations and tertiary institutions. Still, participants were mainly restricted to core members of the environmental team.

#### ii. **Programme and Performance**

##### ***Resource Usage and Management***

Nearly all schools have formulated guidelines and implemented measures for energy conservation, carbon reduction, water conservation and waste reduction, with the aid of corresponding resource conservation devices and waste management facilities, such as 3-colour waste separation bins. It is more common for schools to implement schemes to encourage students and staff to practise 4Rs than to save energy and water. Examples of the scheme include competition, designation of student ambassadors, and award scheme for developing environmentally friendly habits.

Environmental performance was reviewed regularly, including comparison of electricity and water consumption. However, carbon audits were rarely conducted in the pre-school sub-sector; the few schools which completed carbon audits were supported by the sponsoring body to fulfill organisational requirement.

Due to school suspension under the pandemic in 2020/21 school year, no lunch or snacks were provided for students. While all assessed schools continued to promote the use of reusable utensils through requesting students and staff to bring their own water bottles and

use reusable utensils in staff lunch, there was no proper opportunity for schools to encourage the practice of food cherishing through real-life activity on campus.

Schools implemented different strategies to go green under COVID-19. Examples include adopting refillable sanitisation products on campus and encouraging students to bring their own reusable items.

### ***Campus Environment***

Extensive greening is observed among all pre-schools, ranging from setting up gardens, or farming pots for schools with more sufficient areas, to hydroponics or aquaponics tanks, or potted plants for smaller campuses. Student involvement in greening related activities were more limited comparing with previous years due to school suspension.

Neither significant noise pollution nor indoor air quality issues are found in the assessed schools.

### ***Environmental Education***

All schools have integrated environmental-related topics or activities in teaching plans, for example, through storytelling of environment-themed picture books and creation of artwork from recyclable materials. External organisations are also invited to perform drama and demonstrate organic farming on campus. Outdoor learning activities were constrained to take place at school garden or the neighbourhood under the difficult pandemic situation.

Evaluation of environmental education is often conducted during teachers' meetings, based on the results of module assessment of students and teachers' observations. While two-third of schools have reviewed the overall environmental literacy of students, only less than half of them have evaluated that of teachers.

Environmental information is regularly dispersed to school members and their families via reference story books, school websites, social network platforms, or mobile apps.

### **iii. Partner Synergy**

Students' parents and family members are engaged through the organisation of parent-child activities, such as planting or flowerpot design competitions associated with the "One Person, One Flower Scheme", and festive decoration design activities with the use of recyclable materials. As these activities are compulsory for all students or students on a specific grade, the participation rate is high. Parents and the Parent-Teacher Association play a supporting role rather than acting as the event organiser in most pre-schools.

Under the pandemic situation, most schools were unable to conduct environmental activities for and with other schools, external organisations, or the public when social distancing measures were in place.

Schools often request school bus drivers to turn off idling engines, while it is uncommon for pre-schools to state green procurement specifications in the purchasing or tender documents.

## **B/ FEATURE EXAMPLES**

1. Students take turns to act as ambassadors to monitor and encourage peers to adopt environmentally friendly habits.
2. School collected waste materials from the community and created an aquaponics turtle tank with students on campus.
3. Teachers designed a game for students and parents to finish challenges in the community to learn about biodiversity in the school neighbourhood and local culture during class suspension.
4. School encouraged students to challenge themselves by completing various environmentally friendly habits at home and record in an activity booklet. Awards were given to those who completed all the challenges.

## **C/ RECOMMENDATIONS FOR SCHOOLS**

1. Support teaching and non-teaching staff to attend external environmental training so that they can be well-equipped with up-to-date environmental issues, such as marine litter, plastic pollution, climate change, biodiversity and sustainable consumption, etc.
2. Keep a regular record of water and energy consumption (by checking the bills or meters) as well as solid waste generation, so as to provide objective data that could assist the school to monitor the effectiveness of conservation actions.
3. Conduct annual stocktake of environmental resources including teaching props made by teachers and environmental education materials produced by external organisations, and establish a catalogue for easy reference by all school members.
4. Promote “reduce” as the first priority instead of “recycling” in both daily operation and teaching.
5. Conduct regular evaluation of both students’ and teachers’ overall environmental literacy (covering knowledge, attitude and behavioural levels), at least once a year.
6. Encourage the Parent-Teacher Association to take the initiative to organise activities with environmental and/or sustainable lifestyle related themes.
7. Adopt “Whole School Approach” to integrate education for sustainable development in school.

## **2. Primary School and Secondary School Sub-sectors**

### **A/ OVERALL OBSERVATION**

24 primary schools and 20 secondary schools were assessed. Among them, 43 assessments were conducted on-site in school campuses from 15 July to 15 Aug 2022, and 1 assessment was conducted with online meeting and on-site school visit on 8 Aug and 18 Aug 2022 respectively. Some general observations are summarised below.

#### **i. Green Leadership**

All schools have set up an environmental team, in which well-organised teams consist of teachers and staff responsible for different aspects respectively, including environmental management, environmental education and affiliation of students and parents. Environmental policy is formulated, announced and reviewed at least once a year with school members' input. Support from school management and principal is demonstrated by allocation of resources and budget on environmental hardware and activities. Half of the schools have also compiled an environmental report to record and review their environmental performance.

When compared with primary schools, a larger proportion of secondary schools have incorporated "Environmental Education" (EE) in their annual school plan and/or multi-year development plan.

All assessed schools have incorporated environmental education into core or elective subjects of the school curriculum plans, while many of them also scheduled relevant activities in Other Learning Experience (OLE) and Life-wide Learning (LWL). Nevertheless, less emphasis was given on staff training; around 40% of the assessed schools did not arrange any training on sustainability/environment-related issues for teaching and non-teaching staff.

#### **ii. Programme and Performance**

##### ***Resource Usage and Management***

Nearly all schools have formulated guidelines and implemented measures on energy conservation, carbon reduction and waste reduction; only a small portion of them have put effort on water conservation, such as reusing greywater and rainwater.

Energy-saving devices, water-saving devices and waste management facilities are widely adopted. It is more common for secondary schools to install renewable energy facilities, such as solar panels and wind turbines, than primary schools.

The use of reusable utensils is usually promoted through distribution of a set of reusable cutlery at the beginning of the school year. As the provision of school lunch was suspended in most schools under the pandemic, scheme on the encouragement of food cherishing was also paused, particularly in secondary schools.

Majority of schools adopted environmentally friendly/sustainable biological products, including electrical appliances with Grade 1 energy label, FSC or PEFC certified paper, and refillable stationery, etc. Many of them also established green procurement and/or sustainable consumption of biological resources guideline, with reference to recommendations from the Environmental Protection Department, sponsoring bodies, or non-governmental organisations.

Environmental performance was reviewed regularly in meetings of the environmental team. Some schools are equipped with real-time tracking system to support monitoring of resource consumption and display result to school members.

### ***Campus Environment***

Greening in primary and secondary schools includes organic farming plots, butterfly gardens, potted plants and aquaponic ponds. Students assist in taking care of plants in school lessons or during extra-curricular activities.

Neither significant noise pollution nor indoor air quality issues were found in the assessed schools.

### ***Environmental Education***

Schools incorporated EE into school curriculum in the format of teaching in core and elective subjects, class activities, projects and outings, etc. A wide range of online and offline activities, for instance, school talks, workshops and school-based competitions were also arranged for individual grade of students or all students as Other Learning Experience (OLE) and Life-wide Learning (LWL) activities, with the objective of enhancing students' understanding on latest environmental or biodiversity-related issues, training up planting or animal raising skills, and promoting recycling or upcycling, etc.

Student ambassadors were trained up through either school-based training or participation in student ambassador scheme conducted by external organisations. They were responsible for conserving resource and recycling duties in class.

Two-third of schools managed to arrange outdoor learning activities under the pandemic restrictions. An increasing trend of incorporating environmental components in STEM activities was observed, such as conducting environment-themed projects with the use of micro:bit.

Due to suspension of face-to-face classes, schools made use of online assemblies, cloud storage platforms, social network platforms and mobile apps to disseminate latest environmental information to school members, on top of ordinary channels, such as school website and notice.

Overall performance on environmental education evaluation is relatively weak. Most schools lack a systematic approach to assess students' and teachers' environmental literacy. It is suggested that both qualitative and quantitative evaluation should be strengthened.

### **iii. Partner Synergy**

Parents were often engaged through upcycling or planting workshops organised by the school, or tour of school's green facilities on open day. Parent-Teacher Associations often support the collection and distribution of second-hand school uniforms and textbooks to minimise waste generation.

Under pandemic restriction, it was challenging for schools to conduct environmental activities for and with other schools, external organisations or the public. Limited examples include school tour for other school representatives, and workshop or booth on school open day.

In terms of service or product suppliers, a majority of schools has requested lunch caterer to provide reusable utensils in the tender document. School bus drivers are also requested to turn off idling engines.

### **B/ FEATURE EXAMPLES**

1. No single-use items are provided on campus, including straws, plastic bags and cutlery.
2. Provide bicycle parking spaces on campus or allocate car park lots among school members by considering their vehicle capacity and travel distance.
3. Participate in energy-related sponsoring scheme, such as "Green School 2.0 – Energy Smart" and "Solar Harvest".
4. Environmental ambassadors report weather data collected from the school weather station during morning assemblies, with a view to assisting school members in complying with the guideline on usage of air-conditioners.
5. Launch STEM investigation or cross-disciplinary project with environment-related themes.
6. Make good use of the campus environment (such as lawn, garden or other green areas) to implement environmental and life education activities.
7. Implement horticulture therapy in school garden for students and parents with special needs.
8. Students produce environmental protection videos and broadcast online or on campus.
9. Empower students to discuss with the school canteen and initiate actions to replace disposable plastic takeaway food containers with biodegradable ones.

### **C/ RECOMMENDATIONS FOR SCHOOLS**

1. Have at least three to five staff members from different ranks and functions in the environmental management group. The group formation should include principal or vice principal, curriculum development officer, staff responsible for school catering, procurement and facility management.



2. Invite students to provide input in environmental policy formulation.
3. Support teaching and non-teaching staff to attend external environmental training so they can be well-equipped with up-to-date information on environmental issues, such as marine litter, plastic pollution, climate change, biodiversity and sustainable consumption. Schools can adopt sustainable development / carbon neutrality as the theme of staff development day or arrange relevant training on that day.
4. Keep a regular record of all water and energy consumption (by checking the bills or meters) as well as solid waste generation, so as to provide objective data that could assist the school to monitor the effectiveness of conservation actions.
5. Implement schemes or provide incentives to encourage staff and students to develop the habits of conserving resources.
6. Require lunch caterer to use “reusable” instead of “recyclable” lunch container merely to truly reduce waste production.
7. Raise the accuracy of procurement policy execution and provide regular reminders to staff to keep up the conservation vibe within the staff community.
8. Prepare a long-term (three years or more) environmental education plan, to ensure coherence and sustainability of environmental education in school.
9. Arrange more environmental workshops, seminars, visits and other kinds of training for students, with diverse themes such as marine litter, plastic pollution, biodiversity and sustainable consumption, to provide opportunities for students to understand the co-relation between their daily life action and the environment.
10. Arrange adequate outdoor learning activities for students to get in touch with nature instead of just visiting indoor venues outside school. Suggested places of visits are Geo Park, Mai Po Nature Reserve, nature parks, country parks and public beaches, etc.
11. A more systematic and holistic evaluation should be conducted to evaluate the environmental awareness, attitude and behaviour of students and teachers, and understand more about the effectiveness and levels of understanding of them. Apart from conducting quantitative evaluation through questionnaire, the school can consider conducting qualitative evaluation through interview and/or focus group, or incorporate evaluation in students’ learning activity.
12. Encourage the Parent-Teacher Association to adopt sustainable development as the theme of their activities.
13. Adopt “Whole School Approach” to integrate education for sustainable development in school.