HONG KONG BIODIVERSITY STRATEGY AND ACTION PLAN

NGO FOCUS GROUP FINAL REPORT

9 May, 2014

CONTENTS

1. INTRODUCTION

NGOs play a significant role in building public awareness about Hong Kong's biodiversity and in forming people's understanding of nature. When the HKSAR Government committed to taking a participatory process in developing Hong Kong's first Biodiversity Strategy and Action Plan (BSAP), a significant number of NGO representatives were invited to join the Steering Committee and the three Working Groups, which are in charge of formulating the plan. In recognising the importance of NGOs, the Awareness, Mainstreaming and Sustainability Working Group established a NGO Focus Group to examine the contribution that NGOs can make in delivering the goals and targets of the BSAP. To this end, the focus group has also considered how the Government can support the NGO sector to increase their capacity, effectiveness and synchronise their efforts to raise public awareness and mainstream BSAP across different segments of the population.

NGOs that are working on nature conservation are generally of the understanding that Hong Kong has an incredible range of biodiversity. Hong Kong is considered a Key Biodiversity Area[1] of high conservation priority within the Indo-Burma Hotspot, one of 25 global biodiversity hotspots[2]. Yet the city's biodiversity richness are largely underappreciated and valued, by the public and by policymakers. The view that natural areas are a resource to be exploited needs to change. To begin treating nature as an asset, valuable as a functioning ecosystem, public knowledge and awareness about biodiversity need to be raised, and efforts by communities, NGOs and other stakeholders should be sustained by supportive policies and institutions. Some NGOs engaged in nature conservation in Hong Kong tend to emphasise creating activities that take participants beyond talk and into nature, with the belief that once an individual establishes an emotional connection with a place, they are likely to develop a sense of ownership for local, and eventually broad, conservation issues.

The Final Report is a summary of the views and ideas expressed by various individuals and environmental NGOs that are members, and involved in the meetings and exchanges, of the NGO Focus Group. The scope of the NGO Focus Group is public awareness building, and does not include biodiversity awareness in schools and businesses, which is covered by other focus groups. This report outlines the aim and objectives of the focus group and the consultative approach taken to elicit the views and ideas of the NGOs. The crux of the report include 8 identified gaps that prevent NGOs from attaining more effective delivery of awareness building programmes, and points to a number of strategies and actions that could help address it. The NGO Focus Group has pooled their vast experience and knowledge in recommending associated targets, expected outcomes, responsible body, estimated resource needs, indicators for monitoring and evaluation, as well as examples of past and existing efforts with each action.

In completing the report, the NGO Focus Group has taken the view that biodiversity and sustainable development of Hong Kong concerns everyone, and the BSAP is a compelling purpose and focus point to spark deeper engagement between NGOs and their stakeholder groups. Accordingly all NGOs, not just environmental NGOs, can and should be encouraged to get involved in BSAP.

2. A CONSULTATIVE APPROACH

Since early 2013, Civic Exchange has been conducting meetings with various environmental NGOs on BSAP-related issues. After the establishment of the NGO Focus Group, different environmental NGOs were invited to join this focus group in September 2013. The full list of environmental NGO representatives taking part in NGO Focus Group meetings thus far, and the final report's coordination, can be found in Appendices 1 and 2 respectively. Civic Exchange is coordinating the NGO Focus Group, and the ideas herein are a result of the exchanges between those who were involved in the Focus Group via meetings, and by phone and emails.

The Convention on Biological Diversity (CBD) emphasises the importance of an open and participatory approach in developing BSAPs. Hence, efforts were placed to consult the environmental NGO sector when formulating the final report. Civic Exchange also included the views expressed in a few other meetings conducted with various environmental NGOs on biodiversity awareness-raising since May 2013. This report was completed in several stages:

- A number of informal meetings were held with representatives from environmental NGOs and academics on education, awareness and engagement in biodiversity conservation, from May to October 2013;
- A NGO Focus Group meeting was held (26 November 2013) to discuss the different elements of the report and to agree on the scope, aims and objectives of the group, and the current status and gaps in NGO efforts;
- A draft of the Inception Report was sent to over 25 individuals from the environmental NGO sector for review, of which 14 responses were received (7-14 Jan 2014);
- Highlights of the Inception Report was presented to the Awareness, Mainstreaming and Sustainability Working Group (24 January 2014);
- The completed Inception Report was submitted (30 January 2014);
- A NGO Focus Group meeting was held (20 February 2014) to further develop strategies and actions using the framework of the "logic model";
- Focus group members individually expanded on each action and developed further implementation details (11-22 April 2014);
- A NGO Focus Group meeting was held (24 April 2014) to finalise the content of the Final Report, and review the implementation details of each action. The relationship between the full set of gaps, strategies and actions were also explored, and additional manpower needs of the BSAP implementation authority (i.e. AFCD) identified;
- Highlights of the Final Report will be presented to the Awareness, Mainstreaming and Sustainability Working Group (13 May 2014);
- The completed Final Report will be submitted (30 May 2014).

3. AIM

The NGO Focus Group aims to improve the status of biodiversity in Hong Kong through the work of, and collaboration amongst, Hong Kong's NGOs. Ultimately, the NGO Focus Group should determine how to bring about a cultural shift in the appreciation of nature and the motivation to conserve it.

4. OBJECTIVES

- To stocktake the contribution and impacts of the environmental NGO sector on building public awareness of biodiversity in Hong Kong.
- To develop an agreed set of goals, objectives and targets for building awareness of biodiversity in Hong Kong.
- To develop and propose strategies and actions required to empower and enable NGOs to efficiently and effectively support the achievement of the CBD requirements, especially in building community awareness and support, research and issue identification.
- To identify the necessary institutional arrangements, and the resources and financial implications of building awareness of biodiversity in Hong Kong.

The aim and objectives of the NGO Focus Group were developed with reference to the CBD's Aichi Biodiversity Targets, in particular Target 1, which puts forward the need to increase public awareness about the values of biodiversity. Understanding, awareness and appreciation of the diverse values of biodiversity underpins the willingness of individuals to make required changes and actions, and create the political will for governments to act.

> **Aichi Biodiversity Target 1**: "By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably."[3]

The main instrument to achieve this target is communication, education and public awareness (CEPA) programmes. The Convention's CEPA programme provides guidance on how to attract, motivate and mobilise individual and collective actions on biodiversity; bring out common interests of stakeholders; provide the means to develop networks, partnerships and support knowledge management, among others.

The Convention's CEPA guide[4] will be used as a benchmark to examine the current efforts of Hong Kong's environmental NGOs in raising awareness of biodiversity in Hong Kong.

5. CURRENT STATUS OF NGO EFFORTS

a) Overview of the environmental NGO sector

There is a sizeable NGO sector in Hong Kong, with about 23,300 non-profit organisations as of March 2010, of which 6,380 were registered charities. Approximately HK$7 billion tax-deductible donations were approved by the Inland Revenue Department in 2007-08[5]. The exact number and total giving to environmental NGOs specifically are not known. However, a paper Law Reform Commission of Hong Kong[6] found that 90 percent of all charities were operating to relieve poverty, advance education or religion in 2007. The rest belonged to an "other" category, including environmental NGOs, together with other charities with a variety of purposes, such as community development; arts, culture, heritage and science; equality and diversity etc. Civic Exchange has consulted 48 environmental NGOs on biodiversity conservation matters in the past, which gives some indication of the minimum size of the sector.

Other countries, such as the US, UK, Israel and Australia have conducted studies of environmental philanthropy and have uncovered valuable data about volunteer participation, donation sources, and thematic work of focus. Such information would be invaluable, if surveyed on Hong Kong's environmental NGOs, to enable more targeted funding to areas of need in future, and to enable the sector's worth, particularly in terms of volunteer contributions and population reach, are known. Insights from these studies include the fact that only 3 percent of total philanthropic giving in the UK[7] and the US[8] are directed at environmental causes. In the UK, it was found that 1 in 10 adults is a member of an environmental group, and that 45 percent of expenditure from these groups went to support work on preservation of biodiversity and terrestrial ecosystems (compared with, say, 7.3 percent that went to climate and atmosphere work)[9]. A core bundle of approaches were used in the sector, including awareness-raising, environmental education, coordinating civil society, and advocacy informed through research[10]. Expertise and evidence-based research were particularly valued in the sector, according to a survey of CEOs from UK's environmental NGOs.[11]

b) Existing Biodiversity Programmes

To get an understanding of the types of biodiversity programmes that had been planned or currently in place, a request was sent to various environmental NGOs for a list of biodiversity-related activities in their event calendar in mid-2013. The purpose of this exercise was not to derive representative data of the environmental NGO sector, but to get an indication of the diversity of approaches been undertaken. 14 organisations responded to the request, with 63 activities recorded for the period of June 2013 to December 2014.

The majority of the activities were either targeted at primary and secondary schools, or the general public. Some specific activities were aimed at community centres, university and tertiary institutions, the private sector, hotels, or members' only events. Not surprisingly, taking people out of the classroom, workplace or homes and on field trips in nature or to education centres were the most popular method of instruction for activities on biodiversity. Figure 1 illustrates a diverse range of approaches been undertaken in raising awareness.
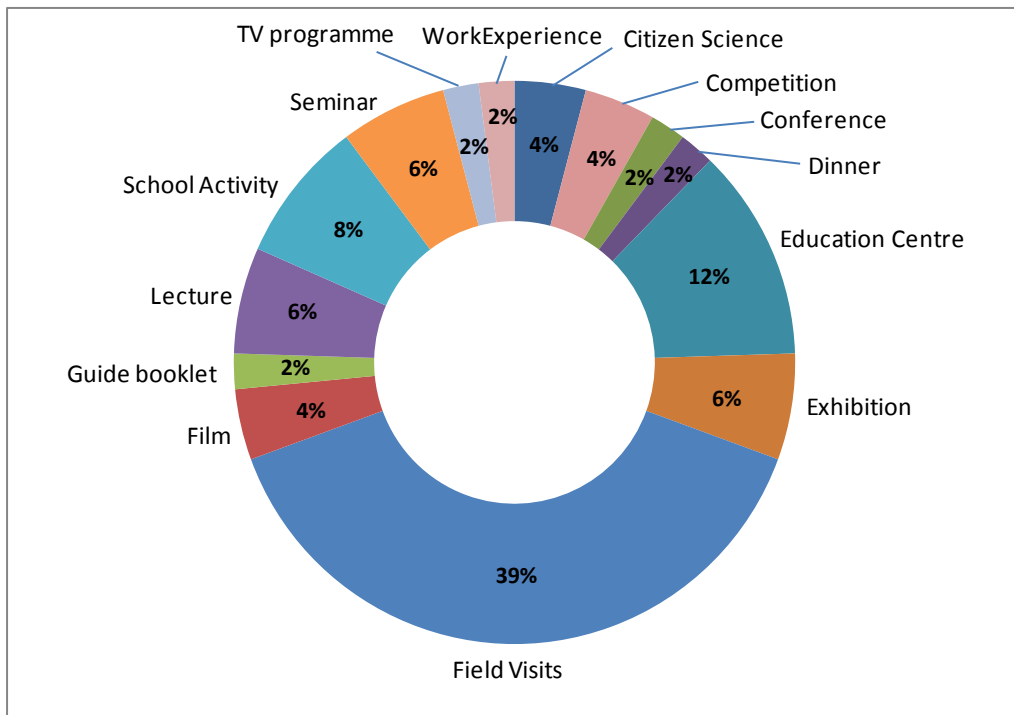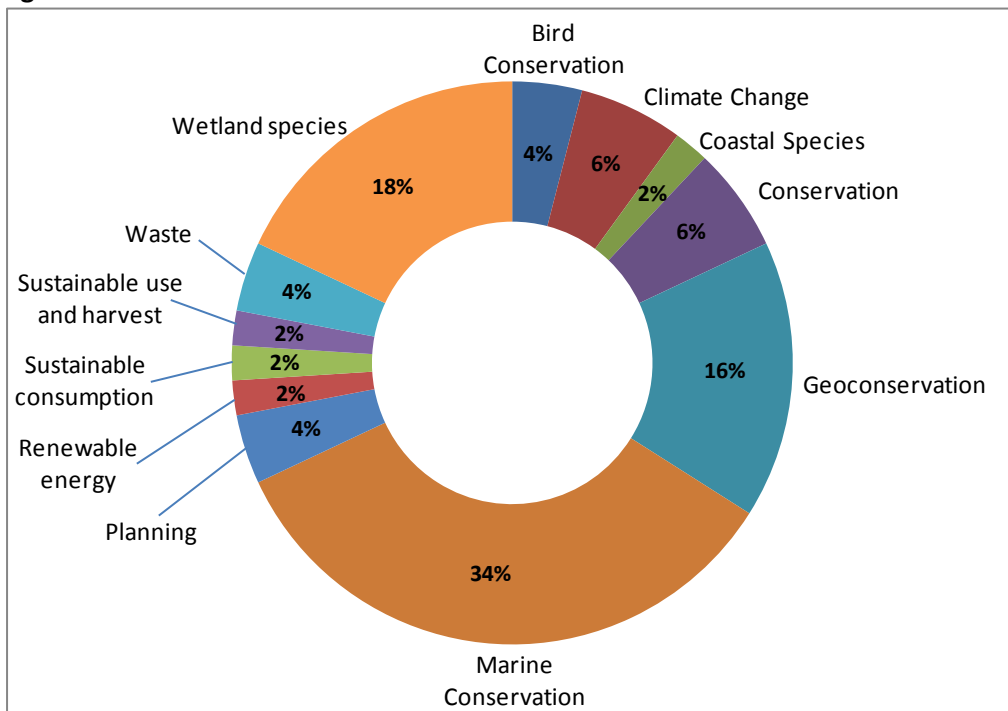
Figure 1: Types of Activities

Figure 2: Thematic Areas of Work

These activities cover a range of the conservation themes, with marine conservation and wetland species as the popular areas of focus (see Figure 2). Their importance reflects organisations such as WWF Hong Kong and the Hong Kong Shark Foundation, both of which were in the sample of respondents, placed focus on the conservation issues within Hong Kong waters. As well, the special protection of the Mai Po Inner Deep Bay marshes led to a boost in biodiversity activities and recreation in wetland areas, such as group bird watching activities.

The range of activities gives some indication of the vibrancy of the environmental NGO sector. However, the process also revealed that there is a lack of a central clearinghouse where biodiversity activities are listed, and that a calendar of events, if regularly updated, would be helpful to drawing greater participation and attention to the values of biodiversity.

Several trends in approaches used by environmental NGOs to raise awareness on biodiversity and conservation were identified.

- Using iconic species for conservation
  Iconic species are frequently used by environmental NGOs to build interest about the natural world and to highlight the need for conservation. Some groups have focused on improving the plight of single species, e.g. Hong Kong Dolphin Conservation Society. Other groups, such as the Environmental Life Science Society at The University of Hong Kong, tend to focus on habitats and the environmental values of a particular place. Field trips are organised for its members to survey and understand a location's surroundings.

- Celebrity endorsement
  Some groups have also enlisted celebrities to get behind a cause. For example, the "I'm FINished with Fins" campaign uses celebrities to declare a stance against shark fins consumption. NGOs that have experience in working with celebrities, whether pop stars or notable people, have commented that significant energy on the part of the NGO are required to ensure the intended message is been brought across by their celebrity endorser.

- Research-driven advocacy
  Advocacy organisations such as WWF Hong Kong often initiate their campaigns with extensive research to identify the scale of a particular problem, which drives the development of a campaign to raise awareness about the issue and influence stakeholders. Campaigns utilise traditional media platforms, but is increasingly complemented by the NGO's own media and publications, such as its own website and infographics to increase understanding, and social media to facilitate mobilisation efforts.

- Hands-on involvement
  Numerous organisations have started to engage people to participate in ways beyond the traditional volunteering roles. "Citizen science" initiatives have been popularised by groups such as Earthwatch Institute and the Hong Kong Bird Watching Society to engage biodiversity enthusiasts to identify and document species sightings, as a means to crowd-source information that can supplement expert research.

  Other groups are using skills-based mentorship programmes to involve industry professionals in environmental education. Tai Tam Tuk Eco Education Centre has enlisted such individuals to communicate the value of nature for businesses in programmes that involve secondary school students.

6. GAPS, STRATEGIES AND ACTIONS

The NGO Focus Group singled out 8 gaps in the current NGO efforts that can serve as bottlenecks for achieving wider awareness on biodiversity and conservation in the community. The group devised strategies and recommended actions that the government could carry out to help fill these gaps, and potentially increase the effectiveness of NGOs in their outreach work. The following section is organised as thus: a short description of each of the gaps is followed by strategies, actions, and further details for implementation. Figure 3 summarises these recommendations, and Figure 4 provides a timeline for their implementation.

Figure 3: Summary of identified gaps and recommended strategies and actions

Develop a White Paper on the value of ecosystems services from a quality of life perspective

Make biodiversity conservation a part of the school curriculum. Train teachers, develop teaching packs and hold outdoor field trips

Revise and develop Hong Kong's conservation policies and plans with the CBD's participatory approach

Establish regular stakeholder foums to share and discuss plans, development and management of biodiversity in Hong Kong

Create a government point of contact to assist NGOs and manage ongoing BSAP projects

Maximise the coverage of NGO activities on BSAP with venue support from LCSD and AFCD

Conduct studies on the economic valuation of ecosystem services

Assess the value of ecosystem services in Hong Kong

Maintain and expand the education output of environmental NGOs

Encourage and facilitate broad community involvement on conservation planning

Create a focal point of information in government to facilitate and support NGO activities on BSAP

Develop a NGO partnership scheme for use of government venues

Organise media training workshops to improve public communications about the BSAP

Communicate the value of what we have

4. NOT KNOWING THE VALUE OF WHAT WE HAVE

Conduct research on global best practices in protected areas management

5. LIMITED FORA FOR CROSS-SECTORAL DISCUSSION

6. NOT REALISING THE POTENTIAL FOR COLLABORATION BETWEEN NGOS AND WITH THE GOVERNMENT

Develop a publicly-funded "Citizen Science" programme

Hong Kong Nature Expo

Develop a pilot programme to boost native vegetation in city parks

Encourage native flora and fauna in Hong Kong

Increase participation in biodiversity conservation

3. NOT KNOWING WHAT WE HAVE

Engage NGO groups outside of the conservation community in BSAP awareness raising activities

7. SILOS APPROACH TO BSAP

Develop info packs for NGO outreach activities

Increase public knowledge about biodiversity

Building Knowledge

Sharing, Collaboration, Mainstreaming

Develop the culture of data and information sharing between stakeholders on biodiversity conservation

Use the BSAP website to facilitate sharing of BSAP materials by NGOs and other stakeholders

Develop massive open online courses (MOOCs) on Hong Kong biodiversity and conservation practices, provided freely to the public by tertiary institutions

Provide publicly accessible, up-to-date information on local biodiversity status and trends

Create a bilingual BSAP website to provide basic information to the public and serve as a clearing house for biodiversitsy knowledge for experts

2. LACK OF A UNIFIED MESSAGE

Develop and share the overarching vision for biodiversity conservation in Hong Kong

Formulate overarching vision, aims and targets for HK's BSAP

Communicate the goals, purpose and importance of BSAP to the public

Develop a branding strategy

Develop a marketing strategy and branding identity document

8. LACK OF INDICATORS TO TRACK KNOWLEDGE AND ATTITUDES TOWARDS BIODIVERSITY

Track the trends in knowledge and awareness towards biodiversity.

Conduct survey every 2 years, with first survey conducted before BSAP is implemented to establish baseline

1. Inadequate funding for the BSAP

Establish specific BSAP project funding mechanism

a) small grants funding pool for profit and nonprofit organisations;
b) equal apportioning of funds within ECF priority areas

by Carine Lai

a) Gap 1: Inadequate Funding for Biodiversity Conservation

Successfully delivering the recommendations of the BSAP will require significant additional effort, and in turn funding, on biodiversity conservation in Hong Kong, and the Government will need to give particular priority to BSAP-related projects within its Environment and Conservation Fund (ECF) provisions to achieve this.

NGOs that have applied for ECF have expressed how difficult and burdensome it has been to manage the ongoing administrative requirements. This is particularly a problem for small organisations that do not have the additional manpower to do this. New funding schemes must be designed to reduce the procedural burden and allow applicants to focus on delivering effective conservation outcomes.

Strategy	1.1 Establish specific funding mechanism for BSAP-related project proposals.
Action	1.1.A. Develop specific government-funded mechanisms for the implementation of BSAP. Projects should be assessed based on how the activity contributes to the achievement of BSAP objectives and targets. Two different funding schemes should be in place: • A small grants scheme for wildlife NGOs and conservation small-to-medium enterprises to a) attend BSAP training, b) run BSAP training, c) run/expand biodiversity-related activities, d) expand membership. Featuring simplified application process, the scheme allows for funding between HK$10,000-30,000. • Equal apportioning of funds within Environmental Conservation Fund (ECF) for its priority areas, since biodiversity conservation is but one priority area of ECF. Within its biodiversity conservation priority, projects should be assessed based on the extent to which it contributes to BSAP objectives and targets. ECF needs to become more streamlined in the application and reporting processes, and increase its transparency with greater details given to applicants about its deliberations.
Target	• Small grants scheme proposed by 2015, begins to take applications by the end of 2015 for projects starting in 2016.
Expected Outcome	• Boosts the capacity of environmental NGOs to develop conservation projects that contributes to the implementation of BSAP.
Responsibility (who takes the lead & who should be involved)	• AFCD Biodiversity Liaison office should be responsible for managing the small grants scheme. • Environmental Protection Department (EPD) is currently responsible for the ECF. EPD may wish to increase the number of reviewers of ECF applications to make for a more efficient application process. The AFCD Biodiversity Liaison office should be involved in decision-making on ECF grants.
Estimated Resource Need	• Separate budgets for the small grants scheme and ECF, to ensure their independence. • Budget for small grants scheme, pilot for 1 year, with extension funding possible for up to 5 years.
Indicator for Evaluation & Monitoring	For the small grants scheme: • Project reports are required and shall be publicised on the scheme's website. • Funded projects should run pre & post (3 months after project completion) surveys to evaluate the impact on their projects, expecting a positive awareness level rise after the completion of projects. • Other indicators include: the number of applications, grants made, types of grants approved, impact of grants, number of people benefiting from grant etc.
Previous & Existing Efforts	• See OPAL Small Grants Scheme: http://www.opalexplorenature.org/Societyfunding. • The Greening Schools Subsidy scheme, run by the LCSD, is an example of a funding mechanism for greening projects: http://www.lcsd.gov.hk/green/subsidy/en/index.php#Eligibility • ECF has a long history of funding conservation projects, including management funding for Fung Yuen, Long Yuen, Mai Po Ramsar Site, etc.

b) Gap 2: Lack of a Unified Message

The mixed messages about biodiversity conservation can be confusing for the public. Having a unified message that is easily understandable, and developing goals and objectives for conservation that people can aim towards, can address the message inconsistencies.

Strategy	2.1 Develop and actively share the overarching vision for biodiversity conservation in Hong Kong. This must be communicated to the wider public in easily accessible formats and accompanied by activities that foster inclusiveness and interaction.		2.2 Develop and implement a branding strategy for the BSAP.
Action	2.1.A. Formulate overarching vision, aims and targets of Hong Kong's BSAP as soon as possible, to aid in the efforts of the Working and Focus Groups. This should be done as soon as possible, before the publication of the BSAP Working Group develops its final recommendations to the BSAP Steering Committee. The BSAP vision, goals and targets are actively communicated to the public, as part of a broader promotion of the process to develop Hong Kong's BSAP and to engender community participation, starting in early 2015 [see 2.2.A.].	2.1.B. Communicate the goals, purpose and importance of the BSAP to the public in a compelling and understandable manner. See also 2.2.A. Hire a BSAP Project Manager (Website & Media) and Community Scientists: • Mid-2014: Hire BSAP Project Manager (Website & Media). Deliver consistent and effective communication, design and branding of the BSAP and all related output by community partners is essential to an effective BSAP. • End 2015: BSAP Project Manager (Website & Media) working with AFCD Biodiversity Liaison and NGOs to run BSAP Media Workshop. [See 4.2.A.] • Mid-2015: Hire BSAP Community Scientists, each responsible for different local area around Hong Kong to increase engagement in BSAP. They are also responsible for reaching out to existing community groups, NGOs, schools, professional/industry associations etc. in the area. Disseminates BSAP information, organises local activities and training. [see 7.1.A. & 4.2.A.]	2.2.A. Hire a marketing company to develop a BSAP Brand Identity Document, as well as to develop a marketing plan for the BSAP, which should include TV adverts and celebrities engaged to showcase Hong Kong's wild side and natural beauty. The marketing plan should work in conjunction with, and take advantage of, existing promotional materials [see 7.1.A.], such as a series of short videos currently in development and commissioned by the AFCD. Allocate designated airtime for public service advertising to BSAP during the launch period.
Target	• By mid-2014, the BSAP Steering Committee has formulated vision, goals and targets for the BSAP and shared this to the Working and Focus Groups. • The Chief Executive delivers the vision and goals of the BSAP, and commits to funding and full implementation of the BSAP in the 2015 Policy Address.	• The project management team must be operational from the start of the BSAP website launch in early 2015. [see 3.1.A.].	• First advert to be released in early 2015, with public consultation on BSAP. • Comprehensive media launch of BSAP in the end of 2015. • Brand Identity Document to be completed by the end of 2014. • Marketing Plan to be completed by mid-2015.
Expected Outcome	• Clear, concise and methodical vision, aims and targets, that corresponds with the CBD's objectives (conservation of biodiversity, sustainable use, fair and equitable sharing of benefits).	• Consistent, effective media and design strategy to make accessible BSAP objectives and maximise participation. • BSAP Community Scientists engage with communities to mainstream BSAP.	• Widespread media presence of BSAP at launch, and ongoing media coverage of specific events and feature stories throughout the BSAP implementation period, between 2015–2020.
Responsibility (who takes the lead & who should be involved)	• BSAP Steering Committee.	• AFCD Biodiversity Liaison [see 6.1.A.]	• AFCD Biodiversity Liaison to oversee the development of the Branding Identity Document and marketing plan. • BSAP Project Manager (Website & Media) to coordinate the development and delivery of the BSAP marketing plan. • Collaborate with the Tourism Board to engage celebrity endorsers.
Estimated Resource Need	• To be discussed with priority at the next forthcoming meeting of the Steering Committee.	• Budget for BSAP Project Manager (Website & Media). • Budget for BSAP Community Scientists.	• Budget to develop Brand Identity Document. • Budget to develop marketing plan.
Indicator for Evaluation & Monitoring	• Consistency with the Convention on Biological Diversity, especially the Convention's articles, objectives, and the Aichi Biodiversity Targets.	• Consistency in branding of BSAP-related work, in accordance with the BSAP Brand Identity Document [see 2.2.A.]. • NGOs should have access to Brand Identity Document and relevant logos, usage guides, etc. • Community Scientists blog, update reports on engagement.	• Track trends in biodiversity knowledge and attitudes towards biodiversity via a survey of the Hong Kong population [see 8.1.A.]. • Google Trends, which allows tracking of interest in specific keywords over time: http://www.google.com/trends/ • Opinions and complaints from the public received by the Communications Authority.
Previous & Existing Efforts	A multitude of examples exist from NBSAPs that have been developed from countries that are a party to the CBD. For example, Australia's 2010 Conservation Strategy Priorities and Subpriorities: • Engaging all Australians (Mainstreaming biodiversity; Increasing Indigenous engagement; Enhancing strategic investments and partnerships). • Building ecosystem resilience in a changing climate (Protecting diversity; Maintaining and reestablishing ecosystem functions; Reducing threats to biodiversity). • Getting measurable results (Improving and sharing knowledge; Delivering conservation initiatives efficiently; Implementing robust national monitoring, reporting and evaluation) .	• The OPAL Network, an organisation focused on outdoor environmental education with citizen science principles, recognised the essential role of branding/design to effectively communicate biodiversity and ecological values to a wide public audience. They do this via its website design, citizen science survey packs design, appointing one partner to drive media/publicity efforts (Natural History Museum). So far the organisation has reached 500,000 people including over 100,000 from "hard to reach" segments. [also see 7.1.A.] • OPAL has hired a number of Community Scientists that work in different regions of the UK. See OPAL Community Report, http://www.opalexplorenature.org.	• The branding and media success of Earth Hour in Hong Kong can be emulated for the BSAP. • The Waste Wise Campaign is another well publicised public initiative. • Project Wild Thing, 2013 UK documentary about marketing nature. See http://www.projectwildthing.com. Existing promotional materials could be used in conjunction with a mass advertising approach [see 7.1.A.], including: • Documentaries about Hong Kong's natural beauty have been filmed by RTHK (e.g. 香港生態遊, 海底交易). • A YouTube Channel of HKBSAP is set up. A video showing different species in Hong Kong (Treasuring our biodiversity) is published.

c) Gap 3: Not Knowing What We Have

One of the major gaps is a lack of knowledge amongst the general public about the diversity and abundance of endemic species in Hong Kong. Learning about what biodiversity exists in the city is an important precursor in developing the motivation to conserve it. Making local biodiversity more accessible to people is crucial. Making use of pictures to communicate, or combining the sciences (biodiversity data) with the arts (beauty and threats), thereby stimulating the intellectual and emotional aspects of people, may help to fill this gap.

Strategy	3.1. Keep updated information on the status and trends of Hong Kong's biodiversity, and making this publicly accessible.	3.2 Increase public knowledge about biodiversity.	3.3 Encourage native flora and fauna in Hong Kong.	3.4 Increase participation in biodiversity conservation.
Action	3.1.A. Create a website on the BSAP. This website would be public-friendly and multifunctional, and should include not only basic information about Hong Kong's biodiversity, a vision and goals for biodiversity conservation and work on BSAP, but also serve as a clearinghouse of biodiversity knowledge. An "experts corner" within the website would include GIS facilities where new data from biodiversity field surveys could be fed in, and where sensitive data can be stored and password protected. The website should be well populated and launched in time for the BSAP public consultation. Review existing international biodiversity information website platforms. Commence design for Hong Kong's **Biodiversity Clearinghouse Website**, as user-friendly, bilingual resource on Hong Kong's biodiversity. To include: • **Species list** - comprehensive Hong Kong-wide biological records of species, known distribution, who collected, when collected, key characters for differentiation from similar Hong Kong species; photos; whether protected/sensitive species; whether native, endemic, invasive species; search function; location of reference collection; should note and make clear if data on species/area unknown or deficient; list should be available for downloading; species information/photos can be provided as links to Encyclopedia of Life (www.eol.org) or other international database. • **GIS platform** - for viewing geographical information of the Species List, for research, planning and other purposes. • **BSAP info pack** - basic information about BSAP and Hong Kong's biodiversity [see 7.1.A.] • **Events calendar** - BioBlitzes, lectures, ecotours, workshops, activities, by district, etc. • **Activities** - citizen science surveys [see 7.2.A.] • **What's this species App/function** - to help public learn species IDs from photos. E.g. Southern Africa National Biodiversity Institute uses iSpot (www.ispotnature.org) • **Blogroll/Twitter feed/other content-** relevant news/articles about BSAP written by government, NGOs, others.	3.2.A. Develop massive open online courses (MOOC) based on Hong Kong biodiversity and conservation practices, targeted at a Hong Kong audience. The HKSAR Government could facilitate tertiary institutions to provide this service online, and take advantage of the experience universities have with creating self-learning online platforms. • Mid/End 2015: Work with universities/vocational training institutions, develop pilot courses on ecology and biodiversity of Hong Kong and BSAP, delivered by universities/vocational training institutions. This could be delivered in a MOOC-style, video-based format, and/or audio recorded podcasts, available through Biodiversity Clearinghouse Website [see 3.1.A.]. The course materials should be reformatted from existing undergraduate, Masters or vocational training courses, to appeal to a mass audience with no background. • Mid-2016: Work with universities/vocational training institutions/professional or industry bodies, to potentially develop module course adapted for an industry/profession.	3.3.A. Develop a pilot programme to boost native vegetation in city parks. • Early 2016: Work with local communities to identify 3 city parks for pilot study. Establish a joint government-community led taskforce on city parks management and include NGOs, arborists and other tree experts to develop plans for the pilot programme on planting native species. Baseline data on usage, demographics, visitor flow to surrounding shops, collect data on biodiversity (plants/animals/soil quality etc.) should be collected. Work with local nurseries to acquire/grow native species not readily available on Hong Kong list. • Mid-2016: Confirm planting scheme, signage, plant stock. Invite community and wildlife NGOs to assist planting and monitoring throughout the planting process. • End 2016: 6-month pilot programme on 3 small municipal parks completed. • Mid-2017: Evaluate data.	3.4.A. Develop a publicly-funded citizen science programme to enhance knowledge, data and experience with biodiversity. Hong Kong BioBlitz - a "BioBlitz" is a collaborative race against the clock to discover as many species of plants, animals and fungi as possible, within a set location, over a defined time period, usually 24 hours. It combines the collection of biological records with public engagement. Naturalists, scientists and volunteers work together with members of the public and school groups to create a snapshot of the variety of life that can be found in an area.[12] • Mid-2015: Gather interested partners, choose location, secure funding, publicity, and provide training to volunteers. • End 2015: Pilot Hong Kong's first BioBlitz.
Target	Early 2015: Website launch. Coordinate timing with BSAP public consultation.	Mid-2016: the first set of MOOCs on Hong Kong biodiversity and conservation practices available on the BSAP website. [see 3.1.A.]	• 70% of all new plantings in LCSD-managed parks are native plant species by 2020. • Pilot study in 3 municipal parks completed by mid-2017. • One municipal park planted with 100% native species by mid-2018.	• Hong Kong's first pilot BioBlitz completed by end of 2015. • A Bioblitz programme to be established in all 18 districts by 2020.
Expected Outcome	• Central access point for Hong Kong's biodiversity knowledge. • Public interface for biodiversity knowledge and outreach.	• Existing knowledge on Hong Kong's ecology/biodiversity/ environmental management made publicly available. • If pilot courses are successful, module courses with specialised relevant content could be developed for	• Pilot study provides data on whether effective for improving biodiversity • Pilot study sites provide focus for local biodiversity mainstreaming/education activities.	• Public engagement in discovery of local biodiversity. • Opportunity for scientists and wildlife experts to engage with public and each other. • Citizen science: biological recording showing snapshot of

		specific industries and professions to mainstream biodiversity values. • Potential add-on is to make core course basic qualification to enroll for training as licensed country/marine parks ecotour guide. • Another potential add-on is to make core + module courses creditable as industry continuing professional development (CPD). E.g. AFCD biodiversity liaison could work with Law Society and Hong Kong universities' law departments to develop environmental law modules for the legal profession, to count as CPD points.	• Economic incentive for local nurseries to cultivate native species for public use and private sales.	species in particular location. • Engage media in biodiversity values.
Responsibility (who takes the lead & who should be involved)	AFCD should be in charge of creating the website, but could outsource website development and maintenance to outside parties. • AFCD Biodiversity Liaison [see 6.1]. • BSAP Project Manager – website and media [see 2.1.B.].	• AFCD Biodiversity Liaison. • BSAP Project Manager – education partners. • Universities, vocational training institutions. • Industry bodies. Additional parties may need to be involved, such as the Education Bureau, which might need to have strict oversight in the development and offering of these courses to the public.	• AFCD Biodiversity Liaison. • BSAP Project Manager – government partnerships. • Need to collaborate with LCSD. • Greening Hong Kong. • Local community groups (e.g. residents' associations, Kaifong associations, local youth groups). • Local environmental NGOs, e.g. Kadoorie Farm and Botanical Gardens, which operates a native plants nursery.	• AFCD Biodiversity Liaison. • BSAP Project Manager – events. • Wildlife experts (scientists, amateur experts). • Local community groups. • Local environmental NGOs. • Need to liaise with local councils on site location.
Estimated Resource Need	• Project Manager x 1. • Budget for BSAP Project Manager – website and media. • Budget for website development.	Significant resources (financial and manpower) will be needed to develop these courses. Initially seed funding should ideally be provided, wholly or partly, by the government, but courses may eventually move towards offering revenue-generating streams with certifications and aforementioned add-ons alongside the free streams, to cover the substantial capital costs. • Project Manager x 1. • Budget for technology to deliver podcast/live streaming. • Budget for drafting pilot course. • Budget for drafting pilot industry module. • Budget for BSAP media and design.	• Project Coordinator x 1. • Budget for purchasing native plants for 1-3 pilot study sites, plant and project signage. • Budget to sustain the work of the Taskforce, which should include plan-making, overseeing implementation of the pilot scheme, as well as monitoring, evaluation and reporting.	• Project Coordinator x 1. • Volunteers. • Budget for BioBlitz event.
Indicator for Evaluation & Monitoring	• Website tested and launched. • Website analytics (visitor numbers, downloads etc.). • Pre- and post-website user survey.	• Uptake, number of downloads and feedback of pilot courses and modules.	• Pilot studies completed by mid-2017. • Data on status of biodiversity (plants, animals, soil quality etc.). • Data on community engagement. • Citizen science monitoring using free Open University app, iSpot, to track plantings and related biodiversity.	• Citizen science monitoring using free Open University app, iSpot, to track plantings and related biodiversity. • Pilot Hong Kong's first BioBlitz (recommended timing: end 2015). • Data on community engagement. • Data on media coverage. • Data on biodiversity of local site.
Previous & Existing Efforts	• AFCD BSAP website. • AFCD Biodiversity Online website. • Hong Kong Live Ecomap website. • Hong Kong Our Home website. • International biodiversity information website platforms e.g. Southern Africa National Biodiversity Institute (www.sanbi.org). • International nature observation apps, e.g. iSpot Hong Kong (www.ispotnature.org). • International species information platforms e.g. Encyclopedia of Life (www.eol.org).	• Examples of MOOCs offered by universities from around the world: https://www.coursera.org/ https://www.edx.org/ https://www.udacity.com/ • For conservation-related courses, the Conservation Training web portal was created by The Nature Conservancy, with courses developed by IUCN, WWF and other environmental NGOs. Courses are designed for conservation practitioners. A podcast series is also available. https://www.conservationtraining.org/	• Hong Kong Wetlands Park has reportedly around 400 species of native trees.[13] Knowledge and experience here could be transferred to planning and implementing a native species strategy for LCSD-run city parks.	• Bristol Natural History Consortium (BNHC) has been running BioBlitzes in the UK since 2009, and is acting as national coordinator for best practice on BioBlitz events.[14] Events vary in size but have involved more than 2,500 visitors. In 2014, 80+ BioBlitzes are being held across the UK.[15] • Other large-scale UK BioBlitz organisers include the Natural History Museum's Angela Marmont Centre for UK Biodiversity[16] and the Marine Biological Association of the UK for coastal BioBlitzes.[17]

d) Gap 4: Not Knowing the Value of What We Have

Conservation issues are often presented in the media in a politicised manner, and in conflict with other societal priorities. While this can drive conservation actions when people fear the loss of a particular natural area that they value, it discounts the other drivers of conservation action. An appreciation of nature, and recognising the values a place may hold for people, whether intrinsically or the practical benefits of recreation and other ecosystem functions, are what motivates people to conserve nature. If the media can be used as a tool to raise awareness about biodiversity, the narratives and stories that are told must become more diverse. There is value in highlighting the link between nature and our quality of life, and making such messages newsworthy and part of the mainstream.

Strategy	4.1 Assess the value of ecosystem services in Hong Kong.		4.2 Communicate the value of what we have.	4.3 Maintain and expand the education output of environmental NGOs.
Action	4.1.A. Conduct studies on the economic valuation of ecosystem services. • Start 2015: Work with Hong Kong universities, financial services sector (banking, accountancy, insurance firms etc.), government to set up funding for Chair Professor role. • Mid-2015: Appoint Chair Professor of Economic Valuation of Ecosystem Services and Biodiversity. Work with local NGOs to identify 2-4 sites for pilot studies for economic valuation of ecosystem services and biodiversity. Work with international/local NGOs to develop pilot training programmes for "citizen science" approach for financial services sector to participate as CSR opportunity. Work with environmental management courses to provide course content. • End 2015: Commence 6-month pilot studies of selected sites using international best practice. Commence 6-month pilot outreach programme for financial sector. • Mid-2016: Hong Kong to host flagship international conference to present outcomes of pilot studies and training programme, invite attendees to provide best practice studies from other world cities, invite attendees to present framework/approach for Hong Kong-wide assessment, event is opportunity to mainstream biodiversity values in Hong Kong's financial sector industry.	4.1.B. Assess the value of nature and ecosystem services from a quality of life perspective. This can facilitate the communication of its value. White Paper on approaches and value of evaluating Hong Kong's biodiversity from quality of life perspective.	4.2.A. Organise media briefings to improve public communications about the BSAP. If done regularly, such briefings could ultimately bring about a more nuanced examination of conservation issues in Hong Kong, and eventually raise public knowledge about the value of nature. Mid-2015: Media briefings to include: • Briefings on the BSAP. • Briefings on specific events, e.g.: 3.4.A. BioBlitz, 7.1.B. Hong Kong Nature Expo.	4.3.A. Make biodiversity conservation a part of the school curriculum. Enhance the capacity of NGOs to train teachers and develop teaching packs and hold outdoor field trips on biodiversity identification and conservation issues.
Target	• A report on the economic value of Hong Kong's ecosystem services published by the end of 2016.	• White paper on the plan to integrate ecosystem services in government accounts by the end of 2018.	• At least 3 times in the first implementation year, and more for specific events as needed.	• By the 2016-2017 academic year, BSAP and nature conservation is integrated into the curriculum of "Other Learning Experience" courses in schools.
Expected Outcome	• Appointment of Chair Professor provides point of technology transfer and international best practice in private and public sectors. • Pilot study valuation sites provide data and case studies guided by international best practice. • Pilot study CSR training provides data on engagement/ mainstreaming biodiversity values in financial sector. • Conference event serves as catalyst for development of Hong Kong into leader in urban sustainable development.	• Provide Hong Kong-specific evidence and approach for further studies.	• Regular exchange between AFCD Biodiversity Liaison office with media personnel, to craft stories about biodiversity.	• A programme and funding for environmental NGOs to develop teaching material and training workshops for school teachers. • A subsidies programme for school-led outdoor field trips.
Responsibility (who takes the lead & who should be involved)	• AFCD Biodiversity Liaison. • AFCD Project Manager – education partnerships, events. • Environment Bureau/EPD. • Consult the Sustainable Use, Ecological Footprint and Ecosystem Services Focus Group. • Industry bodies for banks, accountancy and insurance in Hong Kong. • Hong Kong universities with existing environmental sciences and economics programmes. • Local environmental NGOs.	• Chair Professor (See 4.1.A.). • AFCD Biodiversity Liaison. • AFCD Project Manager – education partnerships.	• AFCD Biodiversity Liaison. • AFCD Project Managers – website and media; events. • Journalist associations, marketing associations, Foreign Correspondents' Club.	• AFCD Biodiversity Liaison. • AFCD Project Manager – education partnerships. • Education Bureau. • Environmental NGOs.

	• Advisor: Princes' Trust Accounting for Sustainability.			
Estimated Resource Need	• Funding from the HKSAR Government, financial services sector for Chair Professor.	• See 4.1.A. • Budget for PhD student projects.	• 1 x workshop organizer. • Budget for event.	• Ongoing budget for teaching training programmes on biodiversity.
Indicator for Evaluation & Monitoring	• Chair Professor hired. • 2015 Pilot study valuations completed, published in peer referenced journals, data collection on community engagement. • 2015 Pilot study outreach and CSR training completed, data collection on community engagement. • 2015 Conference held, data collection on attendees, media coverage.	• Data from White Paper	• Data on engagement of workshop (number attendees, what organisations, ideas generated, attendees feedback). • Track media coverage on Hong Kong's biodiversity and conservation issues over time.	• Workshop data (number of attendees). • Programme for teaching training workshops developed. • Biodiversity conservation included in "Other Learning Experiences" in school curriculum.
Previous & Existing Efforts	Hopkinson L., Stern, R. (2003). Wild But Not Free. *Civic Exchange*. Retrieved from: http://www.civic-exchange.org/wp/wild-but-not-free-an-economic-evaluation-of-the-benefits-of-nature-conservation-in-hong-kong-2/.	Key articles: • Moss, S. (2012)."Natural Childhood", National Trust UK. See: http://www.nationaltrust.org.uk/document-1355766991839/. Ulrich, R.S. et al. (1984). "View through a window may influence recovery from surgery", *Science*, Vol. 224, Issue 420. See: http://is.muni.cz/el/1423/podzim2011/HEN597/um/Readings_Env_Psy/Ulrich_1984.pdf.	• Project Wild Thing, 2013 UK documentary about marketing nature. See www.projectwildthing.com.	

e)   Gap 5: Limited Forum for Cross-Sectoral Discussion of Issues that affects Biodiversity Conservation

The threat of development or actual damage to nature, once reported in the media, can also bring awareness about the area's diversity of wildlife, and belatedly so in some cases. The discovery of a diversity of marine life at Lung Mei, for example, came only after a government decision for an artificial beach was approved in 2013. It can also give cause to greater conservation action, such as the case of Tai Long Sai Wan in 2010, where vegetation clearing on a spot close to the beach led to calls to subsume the entire area into the country parks system.

Strategy	5.1 Encourage and facilitate broad community involvement on conservation planning.		
Action	5.1.A. Engage the community in determining plans and policy directions at early stages of conservation planning. Ensure that all policy development and planning in the Environment Bureau, EPD and AFCD are developed with a participatory approach as specified in the CBD. The implementation phase of BSAP is likely to spawn reviews of existing policies and new initiatives on biodiversity conservation. To this end, all subsequent plan and policy development will need to take a participatory approach, and include stakeholders (not limited to the conservation community) at an early stage, as obligated under the Convention on Biological Diversity. The current formulation of the BSAP has helped set a precedent for government collaboration with the conservation community, but significant strides still need to be made to involve and mainstream biodiversity to other sectors of society.	5.1.B. Conduct research on global best practices in protected areas management. • An independent study with the aim of improving the management of Hong Kong's protected areas to meet current and future societal ambitions for conserving nature, recreation and eco-education. The paper should deal the application of relatively new concepts to Hong Kong park management such as the ecosystem approach, adaptive conservation management and sustainable use. This should include an element of community consultation (involving representatives of all stakeholder groups), to identify attitudes towards natural areas and usage levels, as well as the community's aspirations for nature conservation of Hong Kong. • Overseas field visits of national park authorities by Hong Kong country park stakeholders – including AFCD officers, Country and Marine Parks Board members, and other non-government aligned stakeholders.	5.1.C. Establish regular stakeholder forums to share and discuss plans, development and management of biodiversity in Hong Kong. These forums could partly fill the gap in between the public awareness and engagement programme that has been conducted during 2014, and BSAP's implementation in 2016. • These forums should be as informal as possible, to ensure that it is non-threatening for all stakeholder groups to participate. • Each discussion forum could be focused on species group (e.g. bird conservation, native tree planting), focused on an area (e.g. Sai Kung East Country Park) or issue (e.g. enclaves policy, designating marine parks). • Each meeting should discuss a different issue or species/area focus, with a view that separate meetings could be arranged for more in depth discussion and developing actions.
Target	• By mid-2016, all new and revision of existing conservation policy and plans under the Environment Bureau, EPD and AFCD to be developed with a participatory approach similar to the BSAP. • By 2018, all new and revision of existing conservation-related policies and plans under all other HKSAR Government departments to be developed with a participatory approach similar to the BSAP.	• Park management advisor hired by mid-2015. • Extensive community participation completed by Feb 2016. • Study completion and paper published by mid-2016. • Media coverage at the paper's launch.	• Starting in mid-2015, ongoing forums to be arranged every 2 months to discuss issues around biodiversity conservation. Each forum is followed by a meeting during the subsequent month for further discussions and recommending actions (if possible). Stakeholders could volunteer to host and lead this follow-up meeting.
Expected Outcome	• The BSAP to become a new public participation model for developing conservation policies and plans.	• Outlines how global best practices on protected areas management could be applied in Hong Kong.	• A regular opportunity to engage and bring together stakeholders on different conservation issues.
Responsibility (who takes the lead & who should be involved)	• Environment Bureau, EPD and AFCD to develop department-wide policy on public participation. • BSAP Project Manager – government partnerships.	• Research should be headed by a park management advisor, with extensive overseas experience, to evaluate and recommend changes to the management of Hong Kong's country parks. The advisor should work collaboratively with AFCD's country parks management unit, and coordinated by the AFCD Project Manager – education partnerships and the AFCD Biodiversity Liaison.	• AFCD Biodiversity Liaison to host the forum. • AFCD Project Manager – events.
Estimated Resource Need	• Additional manpower needed within the Environment Bureau, EPD and AFCD to carry out community engagement throughout the entire cycle of planning and policy development.	• Funding from government for park management advisor, and a small group overseas field visit of park management planning and practices.	• A freely-available, publicly convenient venue.
Indicator for Evaluation & Monitoring	• Number of community panels and groups formed. • Aggregate number of non-government members in community panels and groups. Satisfaction levels in policy change.	• Extent of media coverage. • Number of stakeholder workshops held. • Implementation of paper's recommendation.	• A forum held every 2 months. • Increasing number of new participants present at each forum. • Whether it spawns separate meetings to take action on conservation issues.
Previous & Existing Efforts	• The current process for formulating the BSAP, with its structure of steering committee, working group and focus groups, were developed to facilitate community involvement. While broad community engagement on BSAP is currently lacking (as of April 2014), it is an improvement on typical public consultation processes, one fault of which is that it is unclear how the diverse community views gathered at public consultations are integrated in decision making. • Council for Sustainable Development's public consultation for SUSDEV21 is an early example of a good approach. • A better example is the overseas experience of countries that have formulated NBSAP via a comprehensive public engagement process. India has been lauded for the comprehensive community participation process it undertook to develop its first NBSAP, and can be studied as an exemplar model for public participation.	Seminal studies that greatly influenced the development of Hong Kong's protected areas include: • Talbot, L. M., & Talbot, M. H. (1965). *Conservation of the Hong Kong Countryside: Summary Report and Recommendation*. S. Young, Government Printer. • Thrower, S. L. (1984). *Hong Kong Country Parks*. Hong Kong Government.	• Clean Shorelines was developed as a working group to work on marine refuse. It is interdepartmental in nature, including several government departments as members, and is chaired by the Permanent Secretary of the Environment. This kind of cross-departmental initiative is much needed for taking effective action on a conservation issue. • Green Drinks is an informal gathering that is free for everyone. There is a different talk every month on sustainability and environmental issues. • One example is Talk Oceans, which was a small-scale informal exchange about marine issues such as sustainable fisheries or reef fish conservation. The talk was open to anyone who is interested in the issue, and included an audience of government officials, scientists and NGOs.

f) Gap 6: Not Realising the Potential for Collaboration between NGOs and with the Government

Often concern groups are set up in response to specific perceived threats – such as development and infrastructure projects – to the sustainability or survival of species and habitats. Irrespective of the outcome of these contestations, the often widespread media attention results in increased public awareness and education over conservation and biodiversity issues.

Existing collaborative work, such as the coalition of environmental NGOs to "Save Our Country Parks"[18], has proven that such alliances can help avoid duplicating messages, advance a more united front, and achieve a wider audience reach with coordinated messages and clear actions. Such cooperation is a key tenet of the CBD[19]. There are also some examples of partnerships between NGOs and government departments that have worked well. The Black-faced Spoonbill study and waterbirds count, conducted by the Hong Kong Bird Watching Society and financed by AFCD, have helped to advance the understanding and conservation of wild birds in Hong Kong. Such partnerships are fertile ground that should be further explored.

Strategy	6.1 Create a focal point of information in government to facilitate and support NGO activities on BSAP.	6.2 Develop a NGO partnership scheme for use of government venues.
Action	6.1.A. Create a government point of contact to assist NGOs in setting up BSAP activities and generally to manage ongoing projects as part of BSAP implementation. • Mid-2015: Establish an **AFCD Biodiversity Liaison** as point of contact for NGOs participating in BSAP, to assist in navigation of HKSAR Government departments and resources, and provide communication/branding/design advice for consistency of message. E.g. an NGO wishes to organise a BioBlitz [see 3.4.A.], contacts AFCD Biodiversity Liaison to ask: which government departments would be relevant to contact, what funding might be available and help on application, any other NGOs working on similar project for potential collaboration, submit details to BSAP website and promotional materials. • AFCD Biodiversity Liaison to manage team of Project Managers working with NGOs and other stakeholders, for carrying out specific actions under BSAP. AFCD Biodiversity Liaison to be hired around mid-2014, a project manager (website & media) to be hired around mid-2014; other project managers for events, education partnerships and government partnerships to be hired or designated by early 2015. • Mid-2015: Internship scheme for undergraduate/graduate/vocational training students interested in environmental management /conservation or related field to gain experience and conduct research.	6.2.A. Maximise the coverage of public awareness campaign and activities with venue support from LCSD and AFCD. • Give priority to BSAP-related projects at LCSD and AFCD venues. Currently LCSD gives priority to arts and community projects. • An exhibition should be held near the end of 2015 to coincide with the launch of the BSAP.
Target	• The project management team must be operational from the start of the BSAP implementation phase and website launch in mid-2015. [see 3.1.A.]	• At least one BSAP-related activity promoted at LCSD and AFCD venues at any one time during 2015-2020.
Expected Outcome	• Central contact point for NGOs involved in BSAP (and other government departments involved in BSAP). • Website develops into comprehensive resource and access point. • Role develops as interdepartmental connector between BSAP and NGOs, basis for role to originate and coordinate BSAP-related mainstreaming activities/capacity building. • Internship scheme provides resource for Liaison and engages new generation of young graduates in BSAP.	• BSAP related campaigns and exhibitions could have priority for public venue reservation from 2015-2020.
Responsibility (who takes the lead & who should be involved)	• AFCD Biodiversity Liaison. • AFCD Project Manager (government partnerships) – to manage the internship scheme. • Other government departments (to provide BSAP liaison).	• LCSD and AFCD. • AFCD Project Manager – government partnerships.
Estimated Resource Need	• AFCD Biodiversity Liaison. • Dedicated contact point in each government department. • Project Managers as required. • Internship scheme.	• Requires initial coordination of the AFCD's biodiversity liaison to communicate and set this policy of prioritising BSAP-related activities with venue managers.
Indicator for Evaluation & Monitoring	• Website launched, website analytics. • Data on usage of service by NGOs/other government departments. • Pre and post surveys of NGOs using the Biodiversity Liaison office resources.	• Number of BSAP-related activities held at LCSD and AFCD venues annually. • Applicant success and rejection rate.
Previous & Existing Efforts		• The Central Library for example, managed by LCSD, requests applications to be sent 6 months in advance, which is a long lead time for many NGO projects. The wildlife drawing competition organised by AFCD is an example of a biodiversity-related project that had used this space for their exhibition.

g)   Gap 7: Silos Approach to BSAP

Community involvement in the BSAP has focused thus far on individuals and groups with an existing interest in conservation. To really mainstream Hong Kong's biodiversity values, the BSAP needs to involve individuals and groups beyond environmental NGOs. There is evidence that involving groups for the disadvantaged, for example, in conducting biodiversity surveys is very effective in ensuring inclusion and accessibility to nature for all, an important aspect of CBD[20].

Strategy	7.1 Engage NGO groups outside of the conservation community to be involved in the awareness raising activities associated with implementing BSAP.		7.2 Develop the culture of data and information sharing between stakeholders on biodiversity conservation.
Action	7.1.A. Design and prepare an info pack which helps make it easy for NGOs to do outreach activities. This pack could include suggested activities, maps and biodiversity surveying tools, etc. • Info pack of outreach activities (e.g. bioblitz, see 1.4.A.) takes the form of **citizen science surveys** developed by scientific institutions. Citizen science is a proven method to engage participants and provide credible data for scientific analysis by researchers. • Suggested model: Open Air Laboratories (OPAL) Network[#] • Start 2015: Develop pilot survey. Suggest using OPAL Trees Survey, Lichen Survey or Bugs Count as basis for Hong Kong survey, working with Hong Kong's leading scientists in designing these info packs. • End 2015: Roll out pilot survey with NGOs and schools. Survey pack includes teaching pack, simple ID guide, activity sheets, pencil, magnifying glass (souvenirs).	7.1.B. Hong Kong Nature Expo (Suggested model: Bristol Festival of Nature*) • End 2015: Engage diverse government, business and society partners to host a Hong Kong "Festival of Nature", an annual 1-day public event to engage the public, media, community and NGO groups, to showcase and enjoy the best of Hong Kong's nature.	7.2.A. NGOs and other stakeholders should be encouraged to share their materials on biodiversity conservation online. Tackling the silo approach will require all stakeholders to be involved to achieve the objectives of the BSAP. See 3.1.A. on the development of a central clearinghouse where stakeholders can share study data and results, promotional materials, etc.
Target	• Info packs to be completed and finalised by the end of 2015.	• Inaugural Nature Expo held at the start of 2016. • To be held annually.	[see 3.1.A.]
Expected Outcome	• Engage NGOs and their target audience in biodiversity and science through high-quality, proven effective survey design. • Capacity building for citizen science, establishing international scientific collaborations between researchers. • Data collection on biodiversity in Hong Kong using proven techniques.	• One-off event to raise profile of Hong Kong's first BSAP to large audience. • Method to mainstream BSAP to wide group, e.g. the food and beverage sector, participants encouraged to practice sustainable sourcing. • Engage public, media, community and NGO groups. • Showcase government's green policies. • Raise profile of environmental NGOs around Hong Kong and encourage wider membership.	[see 3.1.A.]
Responsibility (who takes the lead & who should be involved)	• AFCD Biodiversity Liaison. • BSAP Project Manager – education partnerships. • Hong Kong scientist(s) to design/ adapt survey(s). • Educator to link to Hong Kong school curriculum [see 4.3.A.]. • Local NGOs to liaise with schools/target groups to test pilot survey.	• AFCD Biodiversity Liaison. • BSAP Project Manager – events. • Professional event organisers. • Local green NGOs. • Local community NGOs.	[see 3.1.A.]
Estimated Resource Need	• Project development manager x 1. • Budget for designing/ adapting survey(s), translation. • Budget for producing survey packs. • Budget for partnership/technology transfer/advisory role with OPAL (recommended).	• Event manager x 1. • Volunteers. • Budget for professional event organizer. • Budget for green/ community NGOs to set up stalls/ run activities (e.g. participating NGOs pay small sum for joining, eligible to apply for small grant towards activities/presentation). • Budget for government agencies to set up stalls/ run activities. • Budget for partnership/technology transfer/advisory role with Bristol Natural History Consortium (BNHC) (recommended).	[see 3.1.A.]
Indicator for Evaluation & Monitoring	• Production of high-quality pilot survey packs. • Data collection on biodiversity. • Data collection on engagement of participants, schools, NGOs.	• Event held. • Data on participating organisations. • Data on attending public. • Media coverage. • Pre and post (3 months after event completion) surveys with participants/ public.	[see 3.1.A.]
Previous & Existing Efforts	• [#]Open Air Laboratories (OPAL) Network is a partnership of 15 leading scientific institutions in the UK, led by Imperial College and including the Natural History Museum and the Open University, with the aim of reconnecting people with nature. OPAL received £11.75 million from the UK's Big Lottery Fund for 2007-2012 for 32 projects. In 5 years over 500,000 people participated in its "citizen science" programmes, of which over 100,000 were	• * BNHC created the first "Festival of Nature" in 2003 and has been organising this event annually since. 2014 will be their 11th year with 100+ confirmed participating organisations attracting thousands of members of the public, national and international media coverage. Partners of BNHC include Defra, Bristol City Council, BBC, Bristol Zoo, National Trust, RSPB, Bristol University, University of West of England and others. As Bristol is the 2015 winner of the	[see 3.1.A.]

	from deprived or "hard to reach" communities, engaging 3,000 schools and 2,000 NGOs. Data obtained has contributed to scientific papers published in peer reviewed journals. • Most successful were its citizen science surveys (including: lichens and air pollution, trees, biodiversity of urban insects), each developed by a partner scientific institution working with government agencies, NGOs and others. Each survey is presented as a self-contained "activity pack" to distribute to students plus a teachers' guide. • OPAL is in the process of rolling out its surveys to Wales, Scotland and N. Ireland, and is interested in developing partnerships with other countries to share its citizen science programmes and develop new approaches and surveys suitable for citizen science. See www.opalexplorenature.org.	European Green City Award, BNHC is keen to partner with other organisations/events to raise their international profile. See www.bnhc.org.uk.	

h) Gap 8: Lack of Indicators to Track Progress on Knowledge and Attitude Towards Biodiversity

The most commonly referenced indicator of Hong Kong people's growing appreciation for nature is visitor numbers in the city's country parks. This figure has increased steadily over the years (some 13 million in 2012). There are also other indicators that are used to assess the knowledge, values and attitudes of people towards nature. Such information is important for knowing what the current levels of biodiversity awareness are, and what values are ascribed to natural areas. If taken consistently year on year, it can help assess whether implementing the recommended actions of the BSAP are actually having a positive impact on people's subjective appreciation of nature.

A good example is the Flash Eurobarometer Survey on "Attitudes towards Biodiversity", which asks EU citizens on their familiarity with biodiversity, knowledge about the concept of biodiversity loss, and awareness of conservation measures undertaken[21]. A local grassroots example is the video survey project been undertaken by SquAIR Roots, to examine people's perceptions of the environment in all 18 districts[22].

Strategy	8.1 Track the trends in knowledge and awareness towards biodiversity.
Action	8.1.A. Conduct surveys every 2 years on public knowledge and attitudes, participation in voluntary and/or environmental activities, etc. It is important to start now, so that baseline information can be accrued before BSAP is implemented.
Target	• First survey completed and results available by mid-2015. To be done every 2 years thereafter.
Expected Outcome	• Increasing levels of knowledge and positive attitudes towards biodiversity and conservation amongst the Hong Kong population.
Responsibility (who takes the lead & who should be involved)	• This should be commissioned by AFCD to engage a professional pollster, in collaboration with biodiversity experts and sociologists, to undertake the survey.
Estimated Resource Need	• Budget for an independent organisation to coordinate efforts between sociologist, biodiversity experts and professional pollster, and to publish results.
Indicator for Evaluation & Monitoring	• Survey is completed every 2 years. • Trends in biodiversity knowledge and attitudes towards biodiversity amongst the Hong Kong population. • Google Trends, which allows tracking of interest in specific keywords over time: http://www.google.com/trends/
Previous & Existing Efforts	The following surveys on public knowledge and attitudes have been conducted on different aspects of biodiversity. These previous attempts could offer some guidance in developing a survey on biodiversity knowledge and attitudes in general. • Bloom Association conducted a public survey on shark fins in 2011; • Ocean Park Conservation Foundation conducted a biodiversity survey in 2007; • University of Hong Kong's Public Opinion Programme conducted the La Mer Ocean Protection Survey in 2011.

7. CONCLUSION

> "Even with few resources, governments can support community education by using networks and organisations in their countries. Carefully targeted awareness and education programs can enable communities to protect and conserve the natural heritage in their immediate vicinity and on which their cultures and livelihoods depend."[23]

From the NGO Focus Group's perspective, ensuring that the public is aware of biodiversity and its values should be of high priority in Hong Kong's first BSAP, and the strategies and actions recommended in this report are focused on meeting Aichi Target 1, that is, to build public awareness of the values of biodiversity. Knowing what we have and why it is valuable is an essential precursor to achieving the other Aichi Targets.

Key themes that the set of recommendations in this report aim to foster include:
- Collaboration and partnership: to achieve wide buy-in to shared aims, leverage strengths.
- Leverage existing networks: to mobilise wide resources and disseminate and collect information.
- Consistent message: effective communication through content, design and marketing/publicity.

Government leadership is essential for the implementation of the BSAP, and the appointment of key personnel within AFCD, as the BSAP authority, is critical for accomplishing the actions that are set out in this report. They include:
- AFCD Biodiversity Liaison: a person at AFCD acting as NGOs contact point, to help navigate government departments and resources.
- BSAP Project Managers: working by collaboration and partnership with the media, universities and other educational institutions, government departments such as LCSD and EPD, NGOs and wider society, to carry out BSAP strategy and actions.

Some recommendations require action sooner than the expected start of implementation date of BSAP, and should obviously be given priority and duly discussed at the next available Working Group and Steering Committee meetings (see Appendix 3 for a timeline of all proposed actions). Some, if not all, of these recommendations touch on the work of other focus groups. Taken together, these recommendations should benefit all individuals and groups working to implement BSAP. Therefore, the NGO Focus Group proposes that the recommendations of this report be implemented in full, to make certain that the aims and targets of BSAP, and Hong Kong's compliance with the CBD, are reached.

Appendix 1

DETAILS OF NGO FOCUS GROUP BIODIVERSITY ACTIVITIES (not exhaustive)

Name	Organisation type	Current Biodiversity activities
Bloom Association	Local branch of international NGO	• Education and research on sustainable seafood and shark-related conservation issues
Civic Exchange	Local NGO	• Research on BSAP process • Research on sustainable wildlife trade • Engage stakeholders and convene meetings on biodiversity awareness raising
Designing Hong Kong	Local NGO	• Raise awareness within the community by accepting nominations for the Outstanding Public Space Awards 2013
Eagle Owl on Lantau	Local NGO	• Native plant horticulture
Environmental Life Science Society (ELSS), University of Hong Kong (HKU)	Student society	• Annual guided tour of biodiversity rich site for local secondary students • Volunteering at other green NGOs eg Lung Fu Shan Environmental Education Centre
Friends of Hoi Ha	Local NGO	• Informational videos to spread message and gain members • Fundraising to complete scientific survey o environmental issues in Hoi Ha • Submissions to Town Planning Board
Hong Kong Bird Watching Society	Local NGO	• Engagement – guided bird watching activities every month • Education – provides information on bird watching sites, discussion forum for members • Projects – nature conservation management of Long Valley
HK Explorers Initiative	Local NGO funded by international NGO (National Geographic Society)	• Crowd-sourced database of Hong Kong flora and fauna focusing on endemic species • Local guided expeditions
Plastic Free Seas	Local NGO	• Organises beach cleanups • Education in schools • Youth conference
SquAir Roots	Local NGO	• Education on use of plants for health and wellbeing
Tai Tam Tuk Eco Education Centre	Local NGO	• Education on biodiversity of Tai Tam Tuk • Education about Hong Kong's BSAP • Mobile/web app for recording nature observations and species identification, connected to international scientific database • Research on biodiversity valuation of Tai

		Tam area
WWF-Hong Kong	Local branch of international NGO	• Education on biodiversity of Hong Kong • Education for marine conservation leadership training • Education on sustainable seafood • Mobile/web app for learning about Hong Kong biodiversity hotspots • Campaign to conserve marine parks for protection of Chinese White Dolphin • Campaign to conserve country park habitats • Research on Hong Kong ecological footprint

APPENDIX 2

FINAL REPORT COORDINATION

NGO Focus Group Coordinator
Yan-Yan YIP (Civic Exchange)

Key experts / stakeholders who should be involved in the discussion
a) within the Steering Committee/working groups
- AFCD Biodiversity Conservation Unit
- Wong Fook-Yee – Convener of Awareness, Mainstreaming and Sustainability Working Group (AMS WG)
- George Jor – leader of Education Focus Group
- Samuel Kwong – leader of Business Focus Group
- CW Cheung – leader of Sustainable Use, Ecological Footprint and Ecosystem Services Focus Group

b) outside the Steering Committee/working groups
- Environmental NGOs representatives;
- Academics from local universities

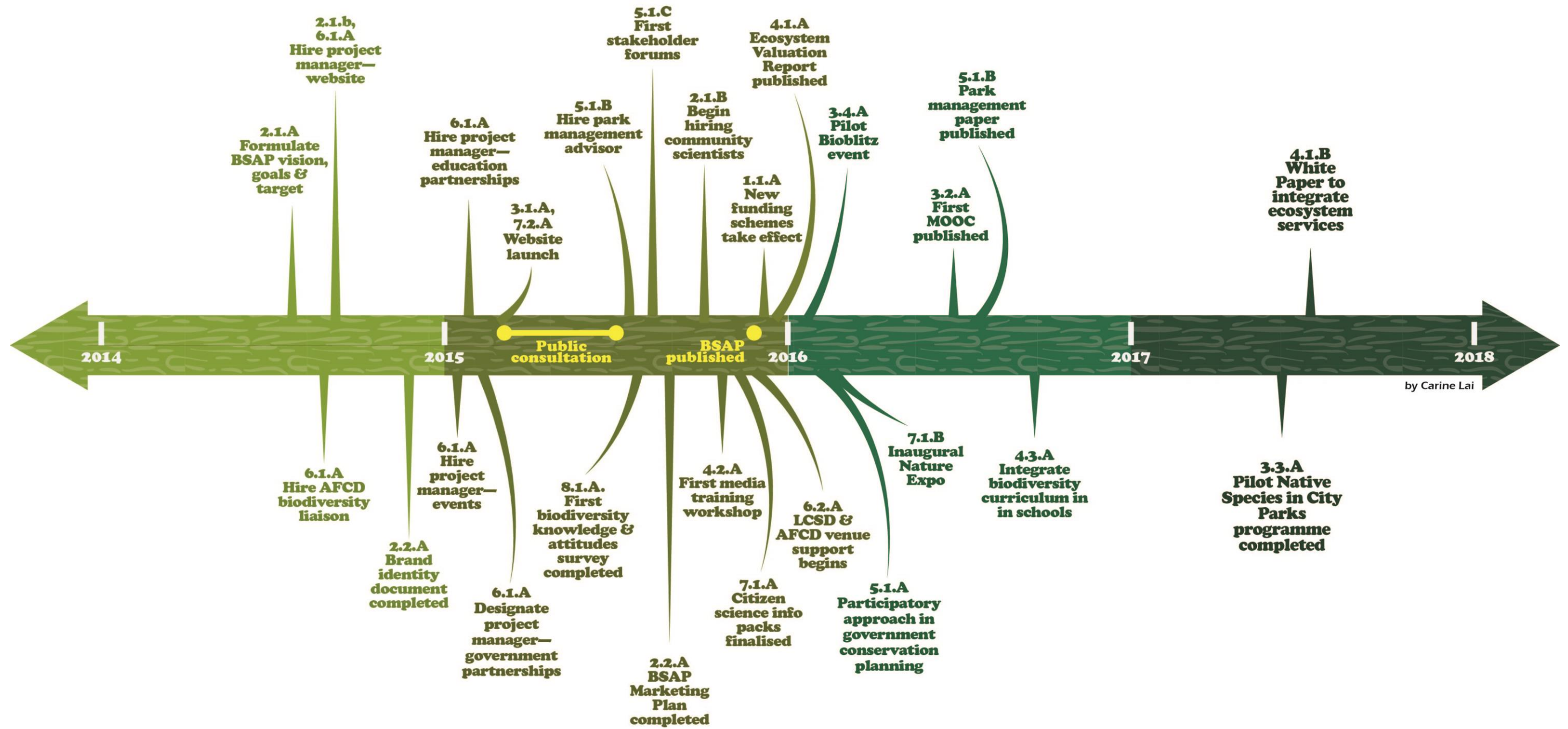**Expected date for submission of recommendations to the working group(s)**
- Inception Report – 24 January 2014 meeting of AMS WG
- Final Report – 13 May 2014 meeting of AMS WG

Expected date for submission of revised recommendations to the working group(s)
- Inception Report – 30 January 2014
- Final Report – 30 May 2014

APPENDIX 3

TIMELINE FOR IMPLEMENTING THE RECOMMENDED ACTIONS

2.1.b, 6.1.A Hire project manager—website

2.1.A Formulate BSAP vision, goals & target

6.1.A Hire project manager—education partnerships

5.1.B Hire park management advisor

5.1.C First stakeholder forums

2.1.B Begin hiring community scientists

4.1.A Ecosystem Valuation Report published

3.4.A Pilot Bioblitz event

5.1.B Park management paper published

3.1.A, 7.2.A Website launch

1.1.A New funding schemes take effect

3.2.A First MOOC published

4.1.B White Paper to integrate ecosystem services

6.1.A Hire AFCD biodiversity liaison

2.2.A Brand identity document completed

6.1.A Hire project manager—events

6.1.A Designate project manager—government partnerships

8.1.A. First biodiversity knowledge & attitudes survey completed

2.2.A BSAP Marketing Plan completed

4.2.A First media training workshop

7.1.A Citizen science info packs finalised

6.2.A LCSD & AFCD venue support begins

5.1.A Participatory approach in government conservation planning

7.1.B Inaugural Nature Expo

4.3.A Integrate biodiversity curriculum in in schools

3.3.A Pilot Native Species in City Parks programme completed

2014   2015   Public consultation   BSAP published   2016   2017   2018

by Carine Lai

26

ENDNOTES

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[15] Refer to endnote 12.

[16] See the UK Natural History Museum's website: http://www.nhm.ac.uk/nature-online/british-natural-history/uk-biodiversity-portal/the-marmont-centre/index.html.

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[18] For more information on Save Our Country Parks, see: https://www.facebook.com/saveourcountryparks

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United Nations (1992). Convention on Biological Diversity. Retrieved from: http://www.cbd.int/convention/text/. According to Article 13 of the CBD, Parties have an obligation to:

"(a) Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and

(b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity."