NEWSLETTER

Hong Kong Institute of Environmental Impact Assessment
香港環境影響評估學會

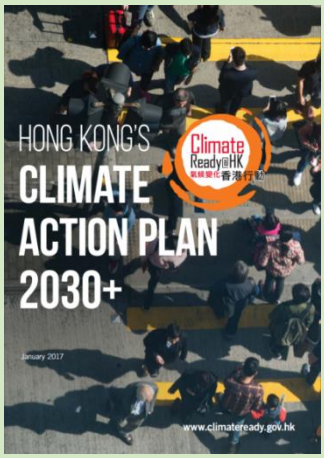
Updating Hong Kong on Environmental Impact Assessment Issue June 2017

Editorial: Climate Change and Environmental Impact Assessment in Hong Kong

There is a growing interest within the international community of environmental professionals to expand the use of EIA for Climate Change (CC) related assessment. Jeonghwa Yi and Theophilus Hacking from the University of Cambridge suggest this issue has come to prominence as CC is still perceived as a distant phenomenon by planners, and it is not yet a prominent issue in the planning process. In this context, there is an opportunity to adapt EIA for use as a decision support tool to adapt or mitigate CC. This approach has already been implemented by some parties. The European Union have been pro-active in adopting The EIA Directive, which requires that in the implementation of EIA, the effects of projects on climate and climatic factors should be examined. In Australia, a different set of circumstances has led to CC mitigation and adaptation becoming a requirement of many EIA's. Court challenges to EIA documents submitted for planning approval have led to states and territories requiring mandatory CC assessments. Aside from governmental bodies, other parties have also incorporated climate risk assessment, adaption and mitigation into the EIA process. The Asian Development Bank, World Bank and several other multi-lateral lending organizations all require CC to be assessed as part of project EIA's conducted during the loan approvals process.

Despite this growing trend for CC assessment in project level EIA, some authors have questioned the effectiveness of this method. Prasad Modak and Namrata Ginoya of EMC LLP note that adaptation plans derived from project level EIA need to be developed at a regional level, often beyond the boundaries of an individual project. Furthermore, they argue that for designing and implementing adaptation and mitigation related plans, regional level assessments are required, and therefore the entry point for CC assessment should be Strategic Environmental Assessment (SEA) or Cumulative Impact Assessment (CIA) rather than project level EIA.

In Hong Kong, there are similar issues to those seen in other countries. We have high level policies that address some aspects of CC (through the recently published Hong Kong's Climate Action Plan 2030+), but we lack the tools to assess CC risk, adaptation and mitigation during more detailed planning stages. Adoption of such tools as part of project level EIA would require extensive redrafting of the EIAO, and as others have pointed out, may not be the most effective approach in addressing regional level adaptation and mitigation issues. While it would seem logical to introduce consideration of CC at the SEA/CIA stage, this too would be problematic in the local context, as SEA/CIA tools are relatively poorly developed and implemented in Hong Kong.



A possible alternative would be to use other planning tools in Hong Kong for CC related assessments. A Sustainability Assessment (SA) is mandatory for all policies and many projects in Hong Kong, and the SA protocol already includes some requirements relating to CC such as an estimation of carbon dioxide production. At present, the objectives of SA are poorly defined, and there is little public knowledge of this assessment requirement. Perhaps expanding the technical requirements of SA (for example, by introducing more quantitative and rigorous Life-cycle Assessment, and adding climate risk assessment components) as well as raising the public profile of SA (by making approved reports publicly available) offers an avenue for us to enhance CC assessment during the planning, design and implementation of project, as well as providing a more substantive and quantifiable objectives for SA.

Several HKIEIA representatives have participated in IAIA 2017 Impact Assessment's Contribution to the Global Efforts in Addressing Climate Change in Montreal later this year. I'm sure they can share innovations in this field from around the world that we can consider and continue the dialogue in addressing this important issue in Hong Kong.

David GALLACHER, Editor

Chair's Remarks

I would like to take this opportunity to share a few thoughts with you after my attendance at the IAIA'17 International Conference in Montreal in April. The conference, with participation of more than 1000 international environmental experts, had focused on how impact assessment could contribute to the global efforts in addressing Climate Change. Representing Hong Kong, we had a team of 12 delegates, including Professor Lam Kin Che, Mrs. Shirley Lee and Mr. Wellem Cheng who also gave presentations at the conference to echo the theme on climate change and impact assessment.

Hong Kong Team at IAIA'17 conference in Montreal

There were useful discussions at the conference on how consideration of Climate Change could be integrated in the SEA and EIA Processes. At the moment, there are still no standard/criteria being established by international experts/authorities on carrying out quantitative assessment of GHG emissions from development projects despite a few countries including Canada and the Netherlands have started to integrate climate change into EIAs. There were examples of EIAs to include assessments on how our climate could be affected by the project and vice versa, how climate change would impact on the proposed project.

We have also leant that the SEA Process will play a key role in addressing climate change. The need to adopt a smart, green and resilient planning concept for combating climate change has been incorporated into the Hong Kong 2030+.

Through the EIA process in Hong Kong, many of our drainage improvement projects have helped to create "Blue-Green Infrastructure", which have both cooling effects and contributed to Hong Kong's overall climate-readiness.

With the positive outcome of the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, Hong Kong must also get ready for making greater effort and approach climate change more holistically. From the perspective of environmental planning and assessment, it is necessary for Hong Kong to start looking into the climate change mitigation and adaptation issues in parallel to consideration of environmental impacts arising from development plans and projects.

HKIEIA will continue to facilitate the exchange of ideas, knowledge and information on how to integrate climate change into impact assessment by participating international conferences and sharing of publication.

Clara U, Chairlady

HKIEIA Finances

The accounts remain healthy with accumulated fund over HK$1.0M at the end of May 2017.

You are reminded to remit your membership dues to the Honorary Treasurer in accordance with Clause 26 of the Institute's Memorandum, all members shall pay an annual subscription as decided by the Committee payable in advance on the first day of May each year. Please send your cheque, without delay, to the following address for my attention if you have not paid the membership subscription.

Hong Kong Institute of Environmental Impact Assessment Limited

c/o Mr. David Yeung (Honorary Treasurer)

21/F, BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong

It is the advice from our auditor that we need to look at the unpaid membership fees seriously as the accumulated account receivable is affecting our financial situation.

David YEUNG, Honorary Treasurer

HKIEIA Memberships

As of 31 May 2017, the Institute has a total of 435 Members, including 23 Fellows (9 of which are Honorary Members), 285 Corporate Members, 121 Associate Members and 4 Student Members.

Mohamed Hasan ISA

HKIEIA Event Highlights

BBQ - "Buy & Build Quiet" Symposium, 27 July 2016

A symposium on construction noise was held at Tseng Kwan O, co-organized by the Hong Kong Construction Association and Hong Kong Institute of Acoustics.

Hong Kong is a densely populated city, with many on-going construction activities for new infrastructure projects as well as redevelopments. All construction works need to be compliant with various environmental and noise mitigation regulations. Conscientious efforts are needed in particular for fast-track projects to address the expectations of local communities and stakeholders for better site management, more environmentally friendly practices and wider use of quiet technologies. International experts in the field shared their views and experience in dealing with construction noise related issues during the symposium.

Mr. Christian Fabris, Scientific Officer of Federal Environmental Agency in Germany, started the symposium by introducing Germany's legislative and administrative framework on construction noise, and low noise construction practices in Germany. Ir. Leung Kwok-tung, Assistant Director of Architectural Services Department (ArchSD) shared his experience in noise and vibration control in ArchSD Projects. Mr. Lau Wai-tat from the Hospital Authority shared the HA's point of view in quiet construction. Dr. King Cheng from the Environmental Protection Department introduced various types of construction noise permit in Hong Kong and explained how the permitting system facilitates quiet construction. Roger Lee from Dragages presented the construction noise control adopted for Mega Tunnel construction in the Liantang/ Heung Yuen Wai Boundary Control Point Project. Peter Leung from Chun Wo-SELI Joint Venture shared the challenges of conducting 24hrs TBM mining works near residential areas. Throughout the symposium, the participants gained a more in-depth knowledge of noise issues related to construction works and relevant mitigation measures.

The presentations were followed by site visits to T.P.T.L. in Pak Shek Kok and North Portal of Contract 2 for Liantang / Heung Yuen Wai Boundary Control Point. Noise enclosures or barriers mitigating construction noise impact were reviewed at both Sites.

Francis LEE

Walk21 Conference, 3 to 7 Oct 2016

Walk21 Hong Kong – the five-day Conference first held in Asia offered a great platform for 156 speakers from 38 countries to share their knowledge and experience of cities' walkability with over 800 delegates and members of the public.

The Chief Secretary for Administration of the Hong Kong SAR Government at the time of the Conference, Mrs. Carrie Lam, officiated at the Opening Ceremony and delivered a speech that made it clear the Government embraces and supports the cause of walking and walkability. *"We are a strong supporter of the mission to promote walkability in Hong Kong."* Mrs. Lam stated. *"There is rising public aspiration for a greener transport environment, and a more convenient and comfortable pedestrian network linking together developments in the same area."* She enunciated that walkability is a key element of sustainable cities and thus the Government is now opening up new planning horizons, raising community awareness and consensus to strike a better balance between pedestrian and vehicular mobility needs.

"We have to go back to the human being as a walking creature," said the Director of Planning of the Hong Kong SAR Government at the time of the Conference, Mr. K. K. Ling, highlighting the whole theme of the Conference. He announced the Government's 2030+ Development Plan in which the focus of planning has been shifted from vehicles to city dwellers. *"We have to reclaim the street for our pedestrians,"* he emphasized with the example of Des Voeux Road Central Pedestrianization Initiative which he called a social movement that inspired Hong Kong to re-examine the use our public space and how to prioritize people over cars.

The Conference showcased cities all over the world transforming from car-centric to people-centered places. Changes were best promoted through symbolic campaigns such as New York City's High Line; Paris Plages' reimagined cities; Berlin's walking route network; Krakow's commitment to tackle pavement parking; Guangzhou's green corridor program; Seoul's highway demolition; Iloilo's car-free routes; and Singapore's road crossings for the elderly.

In Hong Kong, removing cars and buses from Des Voeux Road Central, committing to access around the harbour, re-imagining public space with community programmes like Very Hong Kong, and creating a network of iDiscover Walks in each district of the city, are all initiatives with public support. I hope these campaigns could become the forefront examples for policymakers to come up with policies and implementation plans for a better and more walkable future of Hong Kong – for us *walking creatures*.

Kathy IP

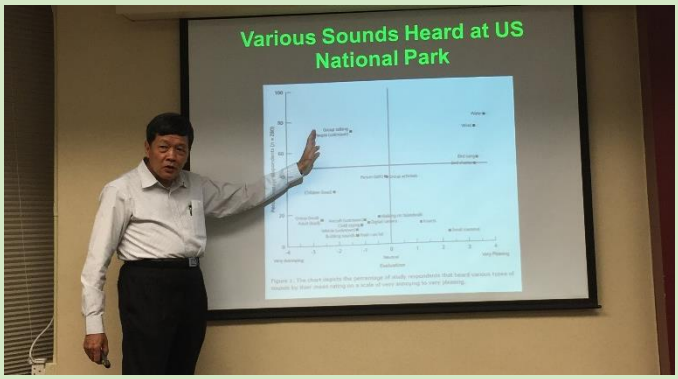
Debriefing Session on Pilot Implementation of EM&A Enhancement Measures, 1 Nov 2016

A debriefing session was held at the MTR Auditorium subsequent to our earlier exchanges with EPD on EM&A enhancements. Our Chairlady Ms. Clara U provided an update of the latest EM&A enhancement measures and introduced some solid initiatives aiming to strengthen our EM&A system to achieve its objectives and safeguard the environment. Mr. Thomas To from EPD presented some EM&A enhancement measures to be implemented through the EIAO and cited Tung Chung New Town Development Extension as an example. Over 70 audience participated and many of them have initiated stimulating discussions in the Q&A session.

Simon CHEUNG

Soundscape Certificate Course, 19 & 26 Nov 2016

Co-organized by HKIOA and HKIE-MMNC, the two-day Soundscape Certificate Course was delivered by Prof. K C Lam and Mr. Andy Chung. The lecture drew over 30 participants for an introduction to soundscape, what we measure and evaluate and how we can craft a soundscape that promotes health.



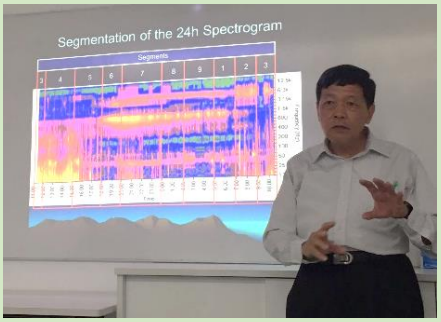
Soundscape is a relatively new concept in Hong Kong. It is defined in ISO 12913-1:2024 as "acoustic environment as perceived or experienced and/or understood by a person or people, in context". In the same way as landscape is what we see and its meaning to us, soundscape is all what we hear and how it affects us. In the last ten years, there has been a growing interest in soundscape studies and a growing number of publications in the scientific literature of the field. There is increasing evidence that the soundscape we live in can affect our health and well-being. It is also contended that the soundscape approach can augment our conventional noise control approach in managing urban acoustic environments.

In contrast to traditional environmental noise control, which aims to suppress intruding noise levels, soundscape design is about achieving a better acoustic experience by optimizing "wanted sound' and minimizing the effect of "unwanted sound". For example, masking of unwanted traffic noise by natural sounds such as sea waves and bird-song can help to achieve better subjective acoustic experience. Another key factor is to match the acoustic expectation of the receivers with the targeted

space, for instance, people usually don't mind children shouting in playgrounds but not in museums.

Prof. Lam explained the positive and negative soundscapes in different contexts. Various studies have shown for the same type of sound, people have different perspectives and acceptance under different contexts. For example, people have a higher tolerance to aircraft noise when they are barbecuing than when hiking inside a country park, and are even less sensitive to the noise in an urban context. We explored various measures, including use of noise barriers, energetic masking, mental masking and sound amplifications, with incorporation of aesthetic (or visual and landscape) considerations, to create a positive soundscape. Nan Lian Garden has demonstrated the benefits of soundscape design. The Garden is surrounded by Lung Cheung Road, Kwun Tong Bypass, Fung Tak Road and Hammer Hill Road with loud traffic noise. Noise barriers were designed to unobtrusively match with the Garden as well as knolls that were created deliberately surrounding the Garden were effective to shield traffic noise from the nearby major roads. The loud but favourable water sound from the 10-metre high waterfall inside the Garden further masked the traffic noise. The soundscape and the atmosphere of the Park were enhanced by amplifiers broadcasting peaceful traditional Chinese music. These measures effectively created a tranquil space at the centre of a busy and noisy traffic environment.

Since it is not controlled by any legislation or guidelines, soundscape is seldom considered in new developments. Before the course ended, we discussed who shall be responsible for soundscape planning or control in Hong Kong. Some participants suggested EPD, while others suggested PlanD and landscape architects, or an incorporation with BEAM. In contrast to regular quantitative noise impact assessments, reviewing or planning for the soundscape of a place involves qualitative elements, requiring professional judgement. It is a challenge and would require in-depth studies and consultations to set up legislation or standards for soundscape planning, especially when Hong Kong is so densely populated that there are always several different activities going on, i.e. different contexts, at the same place. For example, at the Part-time Pedestrian Street at Sai Yeung Choi Street South, people on the street may enjoy the street busking, yet the residents there may find the busking noise annoying. This kind of conflicts is a hurdle for setting up fair and beneficial soundscape standards.



This course was inspirational and brought new perspectives to environmental planning in Hong Kong. It was amazing to gather and discuss with other people in the field who were also eager to learn more for the betterment of the environment in Hong Kong. We would like to thank for HKIEIA's generous sponsorship, and are looking forward to seeing more successful cases of soundscape planning in Hong Kong!

Sally NG/ Karen FUNG/ Alvin CHAN

Technical Visit on Rainwater Harvesting System at Shui Chuen O Public Housing Development, 10 Dec 2016

As Hong Kong's increasing population raises the demand for water, climate change is making water supply more unpredictable. Rainwater harvesting in the urban environment is one way in which water resources can be managed more efficiently, providing a sustainable source of water, reducing dependence on the municipal water supplies, and reducing the burden of stormwater drainage systems. The Hong Kong Housing Authority has provided leadership in adopting rainwater harvesting landscapes into Hong Kong's urban environment. CIWEM organized this visit to the first local Water Sensitive Urban Design (WSUD) project at the Shui Cheun O Housing Development.

Dr. David Gallacher and Mr. Edwin Fung from AECOM provided the participants with a tour of the different components of the WSUD system, including the catchment areas, bioretention treatment units, mixing and storage tanks, and irrigation areas. The group asked numerous questions about the design, construction and management of the WSUD system, and discussed how these technologies can be adopted more widely in Hong Kong.

David GALLACHER

Visit to Mai Po Nature Reserve, 14 Jan 2017

The first HKIEIA outing of 2017 was a bird-watching tour at Mai Po. On a fine Saturday, 22 of us followed a professional guide of WWF to explore the Ramsar Site. We also got the permit to enter the mangrove board-walk to get a closer look at the egrets, spoonbills, gulls and other waterbirds. The most breathtaking and remarkable sighting was of an adult Siberian Crane, a globally Critically Endangered species, which returned after 14 years since it was first seen in 2002. We were all thrilled to see this rare visitor and fascinated by its splendid plumage and elegant repose.

Siberian Cranes (*Leucogeranus leucogeranus*)

Black-faced Spoonbill (*Platalea minor*)

Jackie Yip/ Simon CHEUNG

Seminar on Good Practices for External Lighting Installations, 27 Feb 2017

This seminar drew the audience's attention to the Charter on External Lighting which was introduced by the Environment Bureau Task Force and took effect in April 2016. The speaker Dr. Chung touched on the appropriate strategy and measures for tackling light nuisance and energy wastage problems caused by external lighting. He also advised the good practices for managing external lighting installations, including operating hours for lighting, controls for lighting, light nuisance control measures, energy efficiency measures, lighting project design planning and prevention of glare impact. An active discussion was set up towards the end of the presentation regarding glare impact assessment during the planning process.

Kathy IP

#hkieia Happy Hour, 11 Apr 2017

The first-ever HKIEIA happy hour was held on a Tuesday evening for our members to relax and get to know one another. It was HKIEIA's intention to provide occasions for its professionals to achieve work-life balance and wisely prioritize between "work" and "lifestyle".

Over 30 members enjoyed the free-flow of snacks and drinks with their friends and family. In addition to mingling and networking, a medical doctor was invited to give a mini-talk on family planning which aroused intellectual exchange of ideas amongst the audience. The most exciting part following the talk was that we kicked off several rounds of beer-pong and dart games at the bar. I believe we all had a wonderful evening!

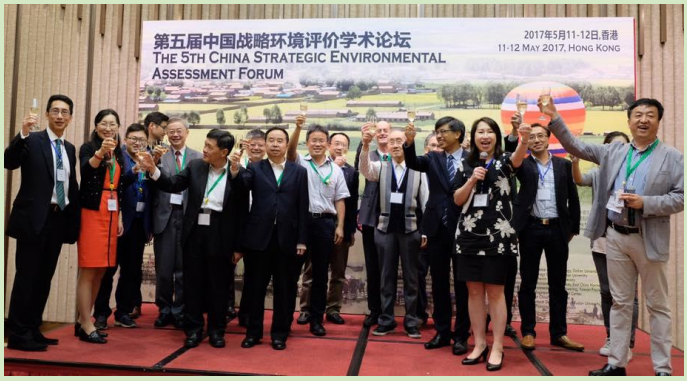
Kathy IP/ Ray CHOW

The 5th China SEA Forum & Technical Visit, 11 to 13 May 2017

The China Strategic Environmental Assessment (SEA) Forum co-organized by HKIEIA, Institute of Environment, Energy and Sustainability (IEES) of The Chinese University of Hong Kong and Nankai University is now in its 5th year. The 2017 Forum was held in Hong Kong successfully discussing the themes: SEA in policy making, climate change, frontier of SEA and One Belt One Road.

We were honoured to have invited Ms. Christine Loh, the Under Secretary for the Environment of the HKSAR Government, and Ms. Xie Hui, the Vice Director of Strategic Environmental Assessment Section of the Ministry of Environmental Protection of China as officiating guests. The keynote speakers Mr. K K Ling, Prof. Stephen F. Lintner, Mr. Tianwei Li, Dr. Alan Bond, Dr. Hu Tao and Prof. Yongqin David Chen, as well as all other speakers gave inspirational presentations and triggered fruitful discussions amongst the 200 participants.

After Day 1 of the Forum, a Dinner was held at the Courtyard Marriott where all old and new friends gathered to enjoy a glamorous night.



Highlights of the Forum included the Round Table Discussion and I-squared Debate on Day 2. Mr. Tianwei Li led a wide-ranging discussion on China SEA policies with Prof. K C Lam, Prof. Xu He and others, whereas Dr. Glenn Frommer facilitated a dynamic debate on developing fringe area around country parks with Dr. Michael Lau, Prof. C Y Lam and others. Presentation of the best paper awards marked the end of this remarkable Forum.

Three technical visits with different themes were held after the two-day Forum, including the Cultural and Geo Tour – Exploring Sam Mun Tsai and Ma Shi Chau, Geoconservation Guided Tour – High Island Geo Trail, Sai Kung Volcanic Rick Region, and Tung O Ancient Trail – Witnessing the changes and development in Lantau. All local participants and guests from China and overseas had a good time with each other in the gorgeous scenery.

Simon CHEUNG/ Kathy IP

Capacity Building Series – Environment Hong Kong 1.0: Stream Design and LVIA, 22 Jun 2017

The interest, from both members and non-members, for the first of the HKIEIA's Capacity Building Series, was extremely encouraging to see, with over 50 attendees on the night attracted by presentations by Dr. Alan Leung on environmentally friendly stream design and from Mr. Andy Lewis on Recent Experiences of LVIA in Hong Kong.

Dr. Alan Leung, a Lecturer at the School of Continuing Education, Hong Kong Baptist University spoke on Environmentally Friendly Designs of Hong Kong Streams: Considerations of Riparian and Adjacent Terrestrial Habitats, drawing on his past experiences working as a conservationist for WWF Hong Kong. Alan provide a background to some of the rich biodiversity present in the watercourses of Hong Kong and also focused on some case studies (e.g. Ho Chung River and Upper Lam Tsuen River), demonstrating what work has been implemented in order to banish the concrete trapezoidal

channels of the last century and develop watercourses which, whilst not diminishing from their flood capacity, introduce a series of niches and microhabitats to benefit these aquatic systems. Alan spoke also spoke on the importance of the riparian corridor, an area often overlooked in development and also the visual and social benefits that good quality watercourses provide.

Mr. Andy Lewis spoke about Landscape Visual Impact Assessment and Planning Studies: Recent Experiences in Hong Kong. Andy is a UK and HK qualified Landscape Architect with over 40 years of experience, mostly in the East Asia region, is perfectly placed to provide a critique of the LVIA process, given that he has seen both sides of the coin, having worked for both the Government and as a Consultant. Andy provided our listeners with an overview of LVIA process, valuable background information for those members of HKIEIA who focus in in other areas of EIA, and how the wording in the Technical Memorandum is subjective and can be interpreted in various ways by different stakeholders. By presenting several examples, Andy provided and overview of the structure of an LVIA report and how the impact assessments for both landscape and visual aspects of a project are conducted. A terrific pair of speakers for the inaugural session of the Capacity Building Series and a very positive membership attendance, which bodes well for the future of these sessions. If you, or your organization, would like to present a short seminar at one of these sessions, on something related to EIA or EM&A or have a Case Study on implementation of good environmental practices (or bad with lessons to be learnt!) please contact us at info@hkieia.org.hk. We are looking to conduct this series on a monthly basis, so the more content we receive, the more learning and information sharing opportunities, we can help to provide!

David STANTON

Upcoming Events

Environment Hong Kong: Capacity Building Series – the second seminar will be held on 20 Jul 2017, stay tuned for the upcoming seminars!

T · PARK and **T · SPA** – a visit will be held on 23 Jul 2017, registration will be kicked off soon!

Geo-park Boat Trip – an eco-tour will be held in Oct/Nov 2017, detail to be announced!

The Event Coordinators

Contributors Wanted!

We're always on the lookout for new and interesting material to add to the HKIEIA Newsletter. Do you have any articles you'd like to contribute? Upcoming events you'd like to publicize? Photos from recent events you'd like to share? We'd love to hear from you! Please feel free to contact us on: info@hkieia.org.hk or www.facebook.com/hkieia.

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