

**Hong Kong Diploma of Secondary Education
Liberal Studies
Structured Enquiry Approach
Independent Enquiry Study Report**

**Standard Covering Page (for written reports and short written texts of
non-written reports)**

**Enquiry Question: A study of the impacts of the third airport runway project
on the sustainable development of Hong Kong.**

Year of Examination: _____

**Number of words in the report/
short written text: _____ 4185 _____** **Viewing time of the
non-written report: _____**

Notes:

- Written reports should not exceed 4 500 words. The reading time for non-written reports should not exceed 22 minutes and the short written texts accompanying non-written reports should not exceed 1 100 words. The word count for written reports and the short written texts does not include the covering page, the table of contents, titles, graphs, tables, captions and headings of photos, punctuation marks, footnotes, endnotes, references, bibliography and appendices.
- Candidates are responsible for counting the number of words in their reports and the short written texts and indicating it accurately on this covering page.
- If the Independent Enquiry Study Report of a student is selected for review by the School-Based Assessment System, the school should ensure that the identity of both the school and student is not disclosed in the report or short written text. For non-written reports, the identities of the students and schools, including the appearance of the students, should also be deleted.

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Part A: Problem Definition

a. Contemporary issue for enquiry

The Hong Kong International Airport (HKIA) has opened at Chek Lap Kok since 1998. It has grown to be one of the busiest airports in the world. In 2014, the airport served 63.3 million passengers, handled 4.38 million tonnes of cargo and accommodated 391,000 air traffic movements (ATMs) with the two-runway system (2RS)¹. The ATMs reveal that the actual growth is four years ahead of forecast. Based on the latest estimations made by Hong Kong Airport Authority (HKAA), the 2RS will likely reach its maximum practical capacity of 68 ATMs per hour, or 420,000 ATMs per year, in 2016 or 2017².

As the 2RS is soon saturated, to handle the increasing number of passengers, the Air Authority released the HKIA Master Plan 2030 (MP2030) on 2 June 2011, which outlined the development of HKIA of 20 years in the future. It raised the option of constructing the 3RS. It claims that the construction of the third runway is an urgent need to meet the traffic demand. Besides, the project can bring economic benefits to Hong Kong. It can create job opportunities of construction workers and airport staff. It can provide convenience for travelers so the air connectivity of flows of goods and passengers is speeded up. The economic growth of tourism and business activities in Hong Kong can be boosted. Therefore, Hong Kong's competitiveness can be raised.

In April 2014, based on the Study Brief of the scope of environmental issues from the Director of Environmental Protection, the HKAA conducted and submitted the Environmental Impact Assessment (EIA) study of the potential environmental impact of the 3RS project. It was approved in November 2014 with the issuance of the Environmental Permit.

Carrying out a three-month public consultation exercise, views and feedbacks were collected from the public. 73%³ of respondents supported the proposal of expanding HKIA in to a 3RS.

¹ HKIA and Hong Kong. Meeting Future Demand. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Growth/Economic_contribution.aspx [last accessed 18 March 2016]

² The Time to Act is Now. Meeting Future Demand. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Growth/demand_forecast.aspx [last accessed 18 March 2016]

³ Press Releases. Media Centre. The Hong Kong International Airport. Available: https://www.hongkongairport.com/eng/media/press-releases/pr_1052.html [last accessed 18 March 2016]

b. Significance of my IES Project

Since the HKIA is a social utility for Hong Kong citizens, the 3RS project will affect the economic, environmental and social interests of all Hong Kong people. I am interested in studying the views on different perspectives that tell the impacts of the 3RS. Therefore, I will analyze their views and justify whether the 3RS project is a sustainable development.

c. Scope of Enquiry

The study will focus on the impacts brought by the 3RS project. The target groups of the 3RS project are the stakeholders that the interests are concerned, including the government, local tourists and businessmen, environmentalists, residents living near the airport and Hong Kong citizens. I will collect second-hand data from online, issues published by HKAA and reports conducted by both the government and non-government organizations.

d. Focus Questions

1. What are the pros and cons of the 3RS project in terms of economic, environmental and social?
2. To what extent is the construction of the 3RS project adding burden on the environment?
3. To what extent the 3RS project can raise the competitiveness of Hong Kong?
4. Is the 3RS project cost-effective?

Part B: Relevant Concepts and Knowledge / Facts / Data

1. Sustainable development

According to the United Nations, sustainable development is to meet the present needs and not to threaten the future generations to meet their own needs at the same time⁴. The needs of each generation should be equally concerned. It especially meets the necessary needs of the poor first. And to meet the present and future needs, environmental limitations are imposed based on the state of technology and social organization.

All countries have to consider the sustainability before setting goals of economic and social development, whatever it is a developed, developing, market-oriented or centrally planned country.

Physical sustainability cannot be ensured so ways to get resources and distribution of costs and benefits should be considered.

Relevancy to my enquiry

By knowing the definition of sustainable development, I am able to investigate the 3RS project based on it to see whether it can meet the sustainability in Hong Kong.

2. Details of 3RS project

According to HKAA, the 3RS project involves reclamation and construction of the third runway and its associated supporting infrastructures.

For reclamation, about 650 hectares of land will be reclaimed at the north of the existing airport island, which is the size of 34 Victoria Parks⁵. There will be a boundary of seawall which is about 13.4 km long⁶. Deep cement mixing technique will be used which will not dredge the sea bed.

For construction of the third runway, it is 3,800m long. For the associated supporting

⁴ Conclusion. Our Common Future, Chapter 2: Towards Sustainable Development. UN Documents. Available: <http://www.un-documents.net/ocf-02.htm#I> [last accessed 9 July 2016]

⁵ Project Overview. Three-Runway System. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Overview/Three_runway_system.aspx [last accessed 18 March 2016]

⁶ Project Overview. Three-Runway System. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Overview/Three_runway_system.aspx [last accessed 18 March 2016]

infrastructures, taxiways, a new passenger concourse of more than 280,000m², 57 new parking positions and an apron are built. To connect the existing Terminal 2 with the new passenger concourse, a 2,600-metre-long new Automated People Mover (APM) system is built. Its transporting capacity is 10,800 passengers per hour⁷.

Relevancy to my enquiry

Knowing the details of reclamation and construction of the 3RS project, I can judge on the level of pollution and the economic effectiveness of the 3RS system, which guide me to make conclusion on whether the 3RS project is sustainable in social, environmental and economic aspects.

3. Environmental Impact Assessment (EIA)

According to the EIA Ordinance, the aim of the EIA is to avoid, minimize and control the adverse environmental impacts brought by the projects before they are implemented⁸. The projects can only be started to be carried out after the Environmental Permit is approved.

The EIA is the study to evaluate on the potential environmental impact of project on twelve key environmental aspects, including air quality, noise, ecology (terrestrial and marine ecology), fisheries, health impact assessment (air emissions and aircraft noise), hazards to human life, water quality, sewerage and sewage treatment, waste management, land contamination, landscape and visual, cultural heritage⁹.

Relevancy to my enquiry

The EIA is a major part of the 3RS project. The HKAA proposed more than 250 measures¹⁰ to tackle the potential environmental impacts arising from the 3RS project. Therefore, the EIA acts as a reference for me to analyze the effectiveness of the

⁷ Project Overview. Three-Runway System. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Overview/Three_runway_system.aspx [last accessed 18 March 2016]

⁸ A Guide to the EIA Ordinance. Guidance Notes. Environmental Impact Assessment Ordinance.

⁹ Environmental Impact Assessment. Environmental Impact & Migration. Hong Kong Airport Authority. Available: <http://www.threerunwaysystem.com/en/commitment/environmental-impact-assessment/> [last accessed 27 October 2016]

¹⁰ Environmental Impact Assessment. Environmental Impact & Migration. Hong Kong Airport Authority. Available: <http://www.threerunwaysystem.com/en/commitment/environmental-impact-assessment/> [last accessed 27 October 2016]

measures of reducing negative impacts to a tolerated level and justify whether the project is environmentally sustainable.

4. Cost of the 3RS project

According to HKAA, for construction, the total estimated money-of-the-day cost is HK\$141.5 billions, of which about 40% will be used on land formation. It includes 6.5 billions for runway and taxiway systems, 36.8 billions for reclamation and 41.2 billions for associated supporting infrastructures. For environmental protection measures, up to HK\$22 billions is invested in¹¹.

Relevancy to my enquiry

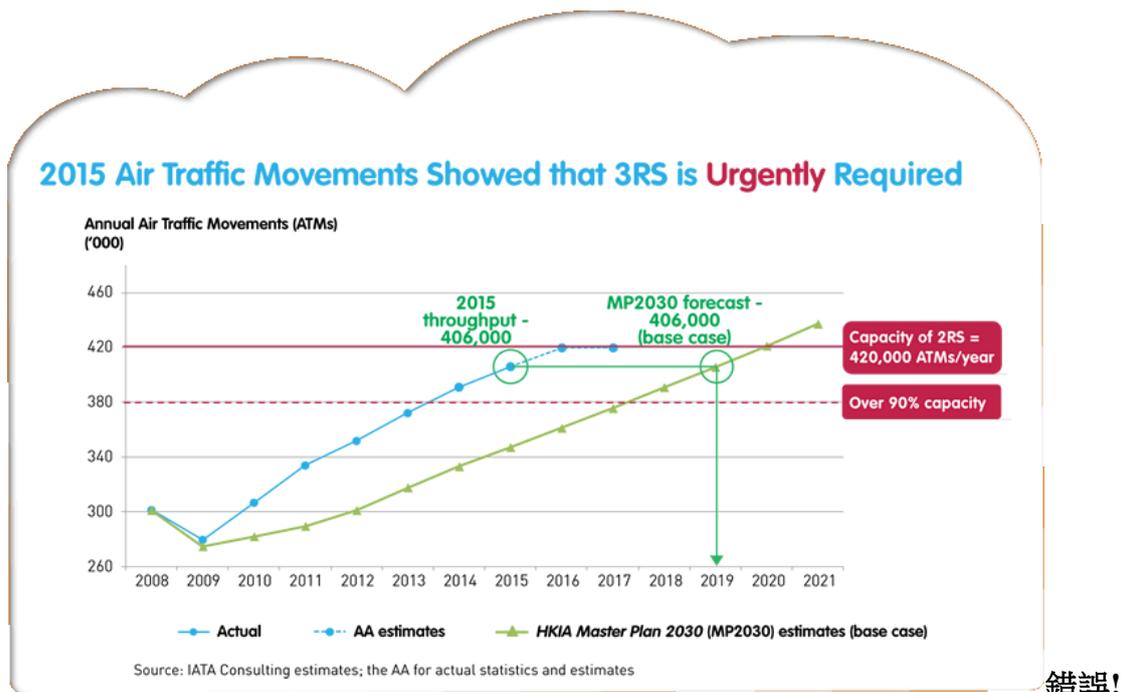
By knowing the sources of cost of the 3RS project, I can judge whether the 3RS project is cost-effective by data by comparing them with the revenue of economic benefits.

5. Number of aircraft movements of HKIA

The number of aircraft movements increase from 300,000 ATMs in 2008 to 391,000 ATMs in 2014, which reaches over 90% of the airport's capacity, and reveal the actual growth is 4 years ahead of the forecast of MP2030. It is estimated by HKAA that the 2RS system will reach its maximum capacity of 420,000 ATMs in 2016¹².

¹¹ Costs & Financial Arrangements. Three-Runway System. Hong Kong Airport Authority. Available: <http://www.threerunwaysystem.com/en/overview/cost-and-financial-arrangements/> [last accessed 28 October 2016]

¹² The Time to Act is Now. Meeting Future Demand. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Growth/demand_forecast.aspx [last accessed 18 March 2016]



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Figure 1¹³

Relevancy to my enquiry

With the graph showing the increasing trend of number of ATMs and the maximum capacity of the 2RS, I am able to justify how urgent is the need of 3RS project.

7. Chinese White Dolphin in Hong Kong

In Hong Kong, the Chinese white dolphin (CWD) is recorded in North Lantau waters, such as Lung Kwu Chau and Sha Chau Marine Park and Chek Lap Kok. It is believed that the population of the CWD inhabiting the Pearl River Estuary and Hong Kong is around 2,500¹⁴.

In recent years, the number of young dolphins in Hong Kong waters has been reducing. It can lead to decrease in population in the future. The reason is that the CWD has been facing a number of threats including water pollution and coastal development.

Relevancy to my enquiry

¹³ The Time to Act is Now. Meeting Future Demand. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Growth/demand_forecast.aspx [last accessed 18 March 2016]

¹⁴ WWF Hong Kong – Chinese White Dolphin. Available: <http://www.wwf.org.hk/en/whatwedo/conservation/species/chiwhitedolphin/> [last accessed 28 October 2016]

Knowing that there is a change in number of the CWD near the HKIA, I can judge whether the environmental protection measures of the 3RS project are effective in preventing further drop in number of them by minimizing the negative effects on their living environment, and make conclusion on to what extent the 3RS project is environmental sustainable.

Part C: In-depth Explanation of the Issue, Judgement and Justification

The 3RS project brings both positive and negative impacts to Hong Kong. However, in terms of sustainability, negative impacts would be overwhelming and irreversible. The core issue is how serious the proposed 3RS would jeopardize Hong Kong's existing and future quality of living and people's right of participating in large scale infrastructure work.

Social aspect

Should local people's rights be ignored or even undermined when 3RS is built? That is an ethical issue of whether people's right should be respected in the first place.

First of all, the construction of the 3RS pollutes the environment and would damage the villagers' living quality on Lantau Island forever. This not only goes against the principle of sustainable development but more importantly it fails to meet the present need of the villagers to enjoy their living environment with adequate quality.

On 20 July 2014, approximately 100 residents¹⁵ from San Tau Tsuen, Sham Shek Tsuen and Sha Lo Wan Tsuen of Lantau Island held a protest in the airport. The chairman of Tai O Rural Committee Lee Chi-fung criticized that the 3RS project would worsen the noise and air pollution. And there would be more limitation on building houses by the government with increasing noise level. They originally enjoyed a quiet living environment in rural areas. Compensation given by HKAA will never recoup the rights for the villagers having adequate living standard and freedom of building houses.

Apart from the impact on local environment, as pointed out by the Civic Party, the 3RS project is excluding Hong Kong's participation and not able to meet the social sustainability of the whole Hong Kong.

The party criticized the government connived the HKAA to issue bond and increase HK\$180¹⁶ of each air ticket to collect fund. These showed that Hong Kong residents had to pay for the 3RS project. However, the government had already given the 3RS project to Town Planning Board (TPB) to discuss when there was not enough information for reference provided to the public. The party disagreed with the

¹⁵大嶼山村民機場示威反三跑，Apple Daily. 21 July 2014. Available:

<http://hk.apple.nextmedia.com/news/art/20140721/18807131> [last accessed 9 July 2016]

¹⁶城規會討論機三跑 團體到場抗議，InMediaHK. 10 April 2015. Available:

<http://www.inmediahk.net/node/1033216> [last accessed 10 July 2016]

procedure of neglecting the public consultation.

It was criticized that the funding model for building the 3RS is to bypass the monitoring of the Legislative Council which has the power to approve the public money for capital works.

Therefore, all Hong Kong residents have no choice but will be forced to pay airport construction fee when they leave Hong Kong though they may not agree with the building of 3RS. Furthermore, there is no public consultation about the project held by HKAA. These show that the rights of Hong Kong citizens are exploited.

Environmental aspect

In environmental aspect, the negative impacts are irreversible and everlasting. With no doubt, the construction work of the 3RS project will create noise, air and water pollution, which degrade the natural environment of Hong Kong permanently and cannot be compensated by environmental protection measures of the 3RS project. This also violates the principle of sustainable development. The 3RS project may undermine the opportunity for the next generation to enjoy the beauty of nature in Hong Kong.

(i) Level of pollution

HKAA proposed some mitigation measures in the design, construction and operation of the 3RS in its EIA report¹⁷. For example, it will minimize the area of reclamation and the reclamation uses non-dredge method to prevent the release of pollutants to the sea. HKAA promised to reduce air emissions and change all cars in the airside to electric vehicles. It will adjust night flight paths to reduce aircraft noise.

However, the effectiveness of these mitigation measures is questionable. A number of environmental groups published a joint statement to explain the severity of the level of pollution created by the 3RS project. They quoted the word of Chairman of the Hong Kong Dolphin Conservation Society, Dr. Samuel Hung that the reclamation area was the intersection point of paths for the Chinese White Dolphin (CWD) to transport among 3 core areas¹⁸, which showed the importance of that area of water to CWD. Therefore they refuted the idea of HKAA that non-dredge method could compensate the negative impacts on CWD as reclamation would lead to permanent loss of the

¹⁷ Mitigation Measures. Environmental Impact & Mitigation. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Commitment/mitigation_measures.aspx [last accessed 9 July 2016]

¹⁸ 環保團體聯合聲明 機管局需正視第三條跑道對環境的影響，Hong Kong Dolphin Conservation Society. Available: <http://hkdc.org/assets/files/Joint-Statement.pdf> [last accessed 10 July 2016]

large area of water.

Furthermore, they pointed out that the aviation industry is a polluting industry of 4% of Hong Kong's total carbon emissions¹⁹ because aircrafts emit huge sum of greenhouse gases including carbon dioxide and air pollutants when they are being operated. It worsens global warming at a faster pace as the greenhouse gases are emitted at high altitude. Therefore, they indicate that the environmental protection measure on reducing carbon emissions of the 3RS project is effective to solve the problem of air pollution after the third runway is built only to a small extent.

It showed that existing polluting facilities such as power plants and planned infrastructural projects such as waste incinerator and Hong Kong-Zhuhai-Macau Bridge on North Lantau Island and Tsuen Mun were over-concentrated. So the accumulated area of reclamation would be too large and it would seriously further worsen the air pollution to carry out the 3RS project even with the mitigation measures to reduce air pollutant emissions.

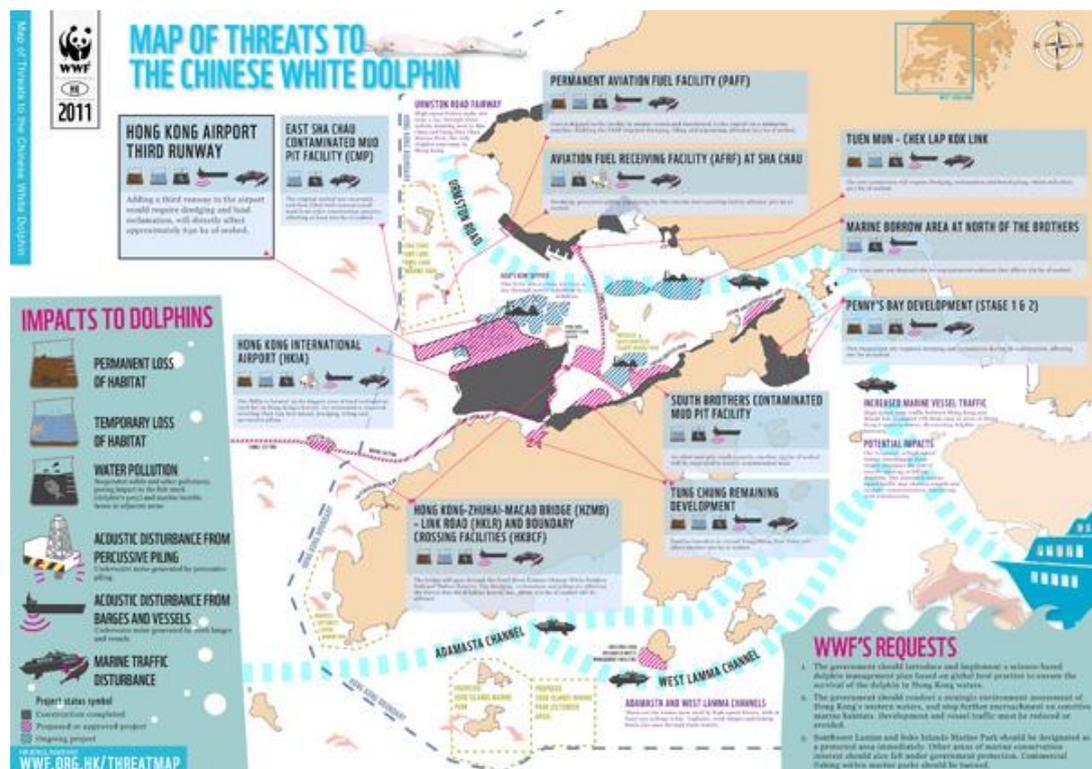


Figure 2²⁰

¹⁹ 環保團體聯合聲明 機管局需正視第三條跑道對環境的影響，Hong Kong Dolphin Conservation Society. Available: <http://hkcds.org/assets/files/Joint-Statement.pdf> [last accessed 10 July 2016]

²⁰ Multiple development works in the western waters will encompass 4,000 ha. WWF Hong Kong. Available: <http://www.wwf.org.hk/en/?4801/Multiple-development-works-in-the-western-waters-will-encompass-4000-ha> [last accessed 29 October 2016]

The environmental groups believe that the mitigation measures cannot compensate the harms the 3RS project brought to the natural environment.

(ii) Marine habitats

The EIA report by the HKAA also includes the measures for the conservation of CWD. It designs to build a marine park of about 2,400 hectares for CWD in North Lantau waters²¹. There will be speed control of ships and restriction of fisheries activities in the marine park to reduce disturbance to CWD and provide good condition for recovery of number of marine animals.

However, the World Wide Fund for Nature - Hong Kong doubts the effectiveness of the marine park²². As the new marine park will be built after all construction work of the 3RS project, CWD may have already left Hong Kong waters. Furthermore, the planned location of the marine park is not the major habitat of CWD, so CWD originally in North Lantau waters may not come back to live in the park after they leave.

Undoubtedly, the reclamation of the 3RS project will pollute the marine environment of North Lantau water. CWD must leave the area far as it is less suitable for their living. Besides CWD, water pollution brought by the 3RS project will increase the turbidity and lowers the visibility in water. It will cause the death of other aquatic lives such as fish and crustaceans, which are the major sources of food of CWD. Therefore, CWD is less likely to come back to live in North Lantau water due to decrease in their supply of food. It leads to further drop of number of CWD in Hong Kong. Therefore, as the marine park cannot ensure the number of CWD will not decrease due to the 3RS project, it may not be effective for the conservation of them.

Economic aspect

(i) Job opportunity

According to HKAA, the 3RS project can create job of 139,000 man-years of construction workers, and associated 123,000 direct and 165,000 indirect and induced jobs²³. Providing more job opportunities should be able to reduce the unemployment rate of Hong Kong.

²¹ Mitigation Measures. Environmental Impact & Mitigation. Hong Kong Airport Authority. Available: http://www.threerunwaysystem.com/en/Commitment/mitigation_measures.aspx [last accessed 9 July 2016]

²² Third runway. Environmental Watchdog. Conservation. What We Do. WWF-Hong Kong. Available: <http://www.wwf.org.hk/en/whatwedo/conservation/watchdog/3rdrunway/> [last accessed 10 July 2016]

²³ Economic Benefits. Three-Runway System. Hong Kong Airport Authority. Available: http://threerunwaysystem.com/en/Overview/Economic_benefits.aspx [last accessed 9 July 2016]

Yet, according to University Grants Committee, number of graduates of undergraduate programmes increases by about 19%²⁴ from 2008/09 to 2014/15, showing that higher education is becoming more universal in Hong Kong. As job positions of construction workers in the 3RS project require low skill with simple and routine tasks and little salary paid, universities graduates with high educational level are not willing to use physical effort to gain little income. They prefer jobs which require knowledge and qualifications to earn high wage. Therefore, the unemployment rate of universities graduates will still remain high of 1.9%²⁵ in 2015.

On 20 July 2014, Cathay Pacific Airways Union, British Airways Union and Hong Kong Dragon Airlines Union issued a joint statement²⁶. They doubted the effectiveness of providing job opportunities to local citizens to be employed. At present, there have already more than 2,000 job positions on the airport island provided by the 2RS. When the 3RS produces further more job positions, they pointed out that the airport-related companies will then have a stronger excuse to employ foreign labor, such as Southeast Asian to save their production cost. It directly affects the long term livelihood of present airport Hong Kong labor. There is little protection of rights of them by the government so they believed that the 3RS project also will not consider the interest of local labor.

The unions thought that the 3RS project may even increase the unemployment rate because there is big chance of employing foreign labor and reducing salary of local labor.

(ii) Economic value

As Hong Kong's major economic activities include tourism and business relying on air transport, 3RS is supposed to be significant to boost the future economy of Hong Kong by providing a high value-added airport.

Financial Secretary Tsang Chun-wah has emphasized that the 3RS project is the most important infrastructure project after the reunification of Hong Kong²⁷. He has

²⁴ 2008/09 – 2014/15. 02 – Graduates of Undergraduate Programmes by Exit Qualification (7 years). Graduate. University Grants Committee. Available: <http://cdcf.ugc.edu.hk/cdcf/searchStatSiteReport.do> [last accessed 29 October 2016]

²⁵ 2014/15. 07 – Employment Situation of Graduates of Full-time Undergraduate Programmes by Institution (single year) Graduate. University Grants Committee. Available: <http://cdcf.ugc.edu.hk/cdcf/searchStatSiteReport.do> [last accessed 29 October 2016]

²⁶ 國泰工會和英航工會聯合聲明：反對興建機場第三條跑道（港龍工會已加入！），InMediaHK. 20 July 2014. Available: <http://www.inmediahk.net/node/1024598> [last accessed 9 July 2016]

²⁷ 財爺：「三跑」為下一代建高增值「大門口」，WenWeiPo. 21 March 2015. Available: <http://paper.wenweipo.com/2015/03/21/YO1503210010.htm> [last accessed 9 July 2016]

showed how the 3RS project positively meets the economic sustainability of Hong Kong. The tourism performance in 2015 showed that the number of worldwide visitors to Hong Kong was 59.3 million with a decline of 2.5% over 2014²⁸. More travelers coming to Hong Kong is expected as the airport can treat more travelers with runway system with enough capacity to change to an increase trend of the figure. In 2015, the total revenue from tourism-related industries was HK\$332.3 billion, which is a 7.5% decrease compared to 2014²⁹. It is believed that the revenue will grow in a reverse trend as more tourists will make consumption in Hong Kong which will increase sales of services industries, such as hotel and theme park. Tourism will be further boosted. As tourism is one of the 4 Pillar Industries of Hong Kong which takes up 5% of GDP in 2014³⁰, this can maintain and even increase the GDP of Hong Kong and a deficit of Hong Kong economy. According to HKAA, the economic net present value is expected to be HK\$455 billion³¹. Besides, the goods are able to transport faster which increases speed of business process in Hong Kong and attracts foreign investment. Overall, the 3RS project can raise the competitiveness of Hong Kong to fight with other nearby Asian countries.

However, there are concerns that the project will be over-budgeted. On opinion board of Ming Pao on 25 March 2015, Vice chairperson of Civic Party, Lai Kwong-tak expressed his views towards the cost of the 3RS project. He believes that the cost of construction work would be over-budgeted. He explains that the reclamation costs expensive fee of purchasing and transporting sea sand from Pearl River Delta Region, and the environmental protection measures require most costly technologies.

In addition, he predicts the 3RS project will be over-budgeted based on the past experiences of building infrastructures in Hong Kong. Since Ten Major Infrastructure Projects was announced, it has been common for projects to be over-budgeted. The estimated price of over-budget is over 1,600 billion³². He states that the construction

²⁸ Tourism Performance. Tourism Commission. HKSAR Government. Available: http://www.tourism.gov.hk/english/statistics/statistics_perform.html [last accessed 29 October 2016]

²⁹ Tourism Performance. Tourism Commission. HKSAR Government. Available: http://www.tourism.gov.hk/english/statistics/statistics_perform.html [last accessed 29 October 2016]

³⁰ 香港便覽 – 旅遊業, HKSAR Government. Available: <http://www.gov.hk/tc/about/abouthk/factsheets/docs/tourism.pdf> [last accessed 29 October 2016]

³¹ Economic Benefits. Three-Runway System. Hong Kong Airport Authority. Available: http://threerunwaysystem.com/en/Overview/Economic_benefits.aspx [last accessed 9 July 2016]

³² 黎廣德: 香港三跑全球最貴之謎, Ming Pao. 25 March 2015. Available: http://news.mingpao.com/pns/%E9%BB%8E%E5%BB%A3%E5%BE%B7%EF%B9%95%E9%A6%99%E6%B8%AF%E4%B8%89%E8%B7%91%E5%85%A8%E7%90%83%E6%9C%80%E8%B2%B4%E4%B9%8B%E8%AC%8E/web_tc/article/20150325/s00012/1427220389195 [last accessed 29 October 2016]

work of the 3RS project is difficult due to the geographical location of Hong Kong and the workload is heavy to be more than a double of Guangzhou-Shenzhen-Hong Kong Express Rail Link.

The opinion of Lai indicates that the 3RS project may not be able to meet the economic sustainability of Hong Kong. As the cost of construction is very huge to be 10 錯誤! 尚未定義書籤。 times of average cost of new runway projects of other countries and the highest ever, the cost-effectiveness of the 3RS project is concerned and doubted. It is still unknown whether the economic benefits or the cost of construction is larger. When cost comes before benefits, there is a risk of losing large sum of capital of HKSAR Government.

In a nutshell, for construction work of the 3RS projects, it is indisputable to bring job opportunities. Nevertheless, the benefit only lasts for short period of time. After the 3RS is built, it is forecasted that it will boost tourism. However, the 3RS is not necessarily to lead to more development of tourism of Hong Kong. Tourists come to visit Hong Kong due to its attractiveness. If Hong Kong does not create and promote more advantages itself, the number of visitors is believed to be reduced, as well as sales of tourism-related industries. The increased airport capacity is then become needless. Therefore, the 3RS project is not cost-effective when the cost of construction outweighs the economic benefits generated by tourism.

Conclusion

The 3RS project will bring about more harm than benefits to the sustainable development of Hong Kong. Despite the mitigation measures, the surging noise and air pollution will hamper the living environment of residents on Lantau. Besides, the irreversible destruction to the marine habitats will deprive the rights of our future generations to enjoy nature, for example, the wild Chinese White Dolphins. The high cost of the construction may not be able to bring comparable revenue from tourism or an increase in job opportunities.

Some may argue that it is necessary to implement the 3RS project to achieve the goal of sustainable development of meeting present need of handling increase number of aircraft movements. Certainly, the need is urgent. Nonetheless, there are other ways to satisfy the need. For instance, the HKAA can maximize the capacity of the existing 2RS. At the same time, the airlines can change to apply aircrafts with larger capacity and give up waypoints with less number of customers. The 2RS is then able to handle

the aircraft movements with less aircraft and maintain the increase in carrying capacity.

To conclude, the negative effects offset the positive ones. Thus I think the third runway system project will not help achieve sustainable development in Hong Kong.

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Map

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Sample No.	Marks*	Comments
<p style="text-align: center;">S1</p> <p>A study of the impacts of the third airport runway project on the sustainable development of Hong Kong</p>	<p>AB: 7 C: 7 PO: 8</p>	<ul style="list-style-type: none"> ● The candidate was able to clearly explain the background and significance of the study. ● However, the enquiry topic is broad and the focus questions did not clearly delineate the direction for the impact evaluation of the Third Runway Project. ● Concepts and knowledge highly relevant to the enquiry topic were clearly identified and explained in detail with reference to the study. ● Nevertheless, the criteria for assessing the impacts should have been clearly established. ● In Part C, a clear stance was put-forth. ● The benefits and costs were analysed from various perspectives. ● Highly relevant information from various secondary sources (e.g. documents from the government, environmental concern groups and the Airport Authority; and views from political parts) was deployed in analysing the impacts, showing an effort in deploying evidential support for the arguments. ● However, the omission of clear assessment criteria for the impacts in the enquiry framework resulted in the failure to draw an evidential conclusion on the overall impact of the Third Runway Project from the cost-benefit analysis. ● The report is well-organised and the sources were clearly acknowledged.

***AB: Problem Definition and Identification of Concepts/Knowledge (Parts A & B)**

CD/C: Explanation and Justification (Parts C & D/ Part C)

PO: Presentation and Organisation (the whole report)