

# Recommendations for tuen mun landfill expansion



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Urban Planning: Principles and Practices

To: Principal Town Planner

From: Assistant Town Planner (MAN Sum Yi Annie)

Subject: Recommendation to Tuen Mun landfill expansion

Landfill is being regarded as one of the locally unwanted land uses (“LULUs”) (Popper, 1981), and siting of LULUs often causes heated debate among the society (Lai et al., 2007). According to the prediction made by the Legislative Council (2013), the West New Territories (“WENT”) landfill in Tuen Mun is expected to be exhausted in 2019. The accelerated exhaustion of landfill in Hong Kong catches our attention, and this planning problem requires immediate response from the government and urban planners. Even though major opposition is held by Tuen Mun residents, the necessity of WENT landfill expansion cannot be denied, in the view of surging waste loads and the other waste management strategies are not ready yet. In this memo, the crux of the landfill expansion problem will first be discussed, followed by recommended policy actions and justifications in gaining support to the plan.

Crux of WENT landfill expansion problem

Appropriate location of landfills remains as a big challenge to planners. The debate of landfill expansion is particularly significant in Hong Kong because of limited land and high population density (Woo, 2010). Moreover, the public does not trust the government in siting locally unwanted land uses (Lam & Woo, 2009; Woo, 2010). There is a major dilemma between

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environmental justice and urgency in handling waste. Despite the fact that the government is working on other waste management strategies, such as the proposed waste charge, food waste recycling partnership scheme and the new incinerator (Environmental Protection Department, 2014), landfill extension is still necessary to handle the remaining 10,000 tonnes of waste which require disposal every day (Legislative Council, 2013). Fuelled by increasing population and rapid economic development, the amount of waste loads is expected to surge continuously. Tuen Mun residents are concerned about the unfavorable impacts disturbing their living environment, which includes odors, health impacts, public hygiene, and the declining local image. Furthermore, Tuen Mun residents challenged the government decision that environmental justice is infringed as Tuen Mun is currently home to many LULUs (Lam & Woo, 2009). As discussed in the previous memo, public perception, alternative policies and sustainability of landfills are the three main reasons hampering public support towards the expansion plan. Therefore, in this memo, recommendations are made on the basis to gain public acceptance.

#### Recommended policy actions

An open and participatory approach is recommended; there are four recommended policy actions to increase public acceptance and gaining public trust. They include evaluating the expansion plan, minimizing disturbance to Tuen Mun residents, showing commitment and involving the public.

First, planners can evaluate the whole expansion plan once again, in terms of distance from residents and the extended area. Planners can examine the possibility of reducing the expansion area. A smaller expansion area will be more acceptable to residents, as their social responsibility in handling waste will be smaller. 67. 95% of interviewed Tuen Mun residents perceived the landfill expansion as a need for Hong Kong, while only 12. 5% perceived it as a local need in a survey conducted (Lam & Woo, 2009). The government can increase education and promotion, in order to allow the public to understand the urgency of the problem.

Second, planners can propose ways to minimize nuisance brought to the residences in Tuen Mun. The design of garbage truck can be improved and the leakage problem of waste water should be strictly controlled. Planting greenbelts around the expanded landfill is another suggestion, which can act as a separation between the landfill and local residents. Planners can explore the other ways in transporting waste, for example using sea transport, so that disturbance during waste transportation can be reduced. Streets can be cleaned more frequently within Tuen Mun; hence pests and insects can be eliminated.

Third, the government should show commitment to the public, demonstrate that they will shoulder the responsibility in waste management. The government can present a timeline in municipal waste reduction and set long term reduction goals. Tuen Mun residents expressed that the pollution problem arose from landfill extension was their top concern (Lam & Woo, 2009). An air quality monitoring station can be set up in Tuen Mun, monitoring the amount of toxic gases and the general air quality. This can

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increase the confidence of Tuen Mun residents towards the landfill expansion and better protect health of residents.

Last but not least, the government should be more sensitive to local concerns and engage public in the decision-making process. Rather than compensation strategies, greater public participation is more effective in persuading local residents (Lam & Woo, 2009). Government can foster trust building by increasing transparency and lengthening time for the consultation period. The government should show respect to the views of different stakeholders. The government can adopt residents' suggestions towards the expansion plan, and promote better communication with residents and the Tuen Mun District Council.

#### Justifications to recommended actions

Indeed, achieving environmental justice is always easier said than done. The concept of environmental justice refers to the equal share of burden of responsibility (Levy, 2011) in handling waste. During the process of decision making, fair treatment and meaningful involvement of the public is being considered as elements of environmental justice. Environmental injustice can be seen through the concentration of costs and risks of LULUs on a particular population (Been, 1993). Each district in Hong Kong has its own function, and functions of districts are determined by locational factors. Although some Tuen Mun residents call for the respect towards environmental justice, fair siting of LULUs among all districts is extremely difficult and impractical.

Proper siting of landfill requires the consideration of environmental, technical and social factors, and the wind direction is especially important. In order to

persuade residents to accept the expansion plan, the government should prove that Tuen Mun is a legitimate and reasonable choice, as well as minimizing impacts brought to residents.

The ultimate goal of the WENT landfill expansion is to achieve comprehensive planning, in which health, safety and public welfare are taken into consideration. Comprehensive planning refers to the plan that can guide the development of the entire community in a long term (Levy, 2011). Evaluation of the extension plan and minimization of disturbance represent government's consideration of the affected residents. The above suggested policy actions are able to establish trust between the public and the government, as the views of Tuen Mun residents are being considered and taken into account. An open and participatory approach in handling LULUs is crucial, as the public is being involved. Compensation measure is not recommended because economic loss is not one of the concerns of the affected residents (Lam & Woo, 2009). Moreover, the effectiveness of monetary compensation has been questioned (Jenkins-Smith & Kunreuther, 2005).

## Conclusion

The urgency waste problem is less significant than other pollution problems since it does not directly affect daily lives of Hong Kong citizens. In addition to other waste management policies, the proposed WENT landfill expansion plan is the best way to handle municipal solid waste. The government and planners play the most important role in promoting this expansion plan. In response to the strong local opposition, four recommendations are made,

which include evaluating the expansion plan, minimizing disturbance, showing commitment and involving the public. Environmental justice is in fact difficult to be achieved in reality, so planners should focus on ways to gain public acceptance while formulating policy actions. The above suggested ways are feasible because views of Tuen Mun residents are taken into account and they are involved in the decision-making process. All in all, the government should be committed to execute other reduction goals while promoting the expansion plan, and the persuasiveness of the plan will be increased.

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