

(English translation prepared by
the Legislative Council Secretariat
for Members' reference only)

(Letterhead of the Democratic Party)

A Submission on

**Promoting the Recycling of Construction & Demolition Materials
(Summary)**

Analysis

1. The landfills will soon be filled up. In the next five years (2001-05), Government reclamation projects will be absorbing 25.56 million tonnes of public fills. However, 50.4 million tonnes of public fills will be generated in the same 5-year period. So we must identify solutions to solve the problem, otherwise additional construction and demolition (C&D) materials will go to landfills at a rate of 26 000 tonnes every day. That means the landfills will be filled up in less than 5 years' time.
2. Making use of C&D materials in reclamation projects is not the most cost-effective approach. Local C&D materials mainly consists of cement, that has to be ground before they can be used in reclamation. The cost involved is higher than using sand and mud. We estimate that the cost of using C&D materials in reclamation is \$130 per tonne, whereas that of sand and mud is just \$20. So the Government will have to spend an additional \$2 billion for using C&D materials in reclamation.
3. Recycling industries will help to lift the recovery rate of C&D materials. The Government said that only 80% of C&D materials are recyclable. According to an environmental protection group and people in the recycling industry, out of the remaining 20% C&D materials, which mainly consist of wood, about 17% can be recycled in cost-effective ways. So only 3% really have to go to the landfills.

Suggestion

1. Levy landfill and public filling area charges on Government projects on an experimental basis. The "user pays" scheme aims at promoting more cost-effective ways of disposing wastes, not for increasing the Government's revenue. In order to promote the recycling of C&D materials effectively and to solve the problem of running out of space of the public filling areas, the Government has to levy charges for disposing waste in landfills and public filling areas. The charge per tonne of C&D

materials should be higher than the recycling costs involved. Suggested charge level is as follow:

Landfill Charge	Public filling area charge	Recycling cost (Please refer to Table 1)
\$215*	\$60	\$30-60

*215 (100% of landfill costs)

Table 1

Net processing cost¹ for recycling C&D materials

Bamboo, wood (9%)	\$30/tonne
Plastic (1%)	\$60/tonne
Other less contaminated C&D materials (25%)	\$40/tonne
Other more contaminated C&D materials (60%)	\$45/tonne
Paper (2%)	\$0/tonne
*Wall tiles (1%)	N.A.
*MSW (2%)	N.A.

*Non-recyclable

(Environmental Protection Education Research Institute, 2000)

The C&D materials generated by the public sector accounts for 47% of the annual total quantity of such materials in Hong Kong. The Government should take the lead in the pilot scheme – that the Environmental Protection Department (EPD) and the Civil Engineering Department should, as a first step, collect C&D materials handling fees from Government projects. In this way, the contractors are encouraged to direct C&D materials to recycling firms which will charge them lower fees, so as to create room for such firms to develop their business. The Government should also examine difficulties encountered by recycling firms in collecting fees and remedial measures should be introduced to tackle such difficulties. In the long run, landfill charge and public filling area charge should be extended to the private sector. We believe that, with the assistance of the Government, when recycling firms have established their business scope, people will have options, and will be less resistant to the proposal of paying landfill charges.

Table 2 Generators of C&D materials

C&D materials generators	Annual quantity of C&D materials
Housing Authority(Demolition)	3,000,000 tonnes
Highways Department	1,500,000 tonnes
Other public works departments including KCRC & MTRC	1,422,000 tonnes
Private developers	6,678,000 ,tonnes

¹ Net processing cost = costs - selling price

Annual Total

12,600,000 tonnes²

Note: C&D materials generated by projects of the public sector (including KCRC & MTRC) accounts for 47% of the annual total quantity of such materials in Hong Kong. (Works Bureau, June 2000)

2. Provide recycling firms with land as a supporting facility: the Administration should allocate pieces of land to recycling firms so that they can classify and grind the C&D materials at suitable places near the demolition sites or the landfills. But in order not to disturb the life of people living there, such a decision should have the endorsement of the Director of EPD.
3. Include recycling provisions in tenders. If the schemes for levying landfill and public filling area charges cannot be implemented immediately, the Administration should ask the Housing Authority (demolition works), the Highways Department (road digging) and other departments undertaking public works projects to consider whether recycling plans for C&D materials are included in tenders and take this as the pre-requisite when awarding tenders. This would change the past policy of awarding tenders to the lowest bidder.
4. Formulate a procurement policy for green materials. Presently, local recyclable C&D materials are mainly for export to the Mainland and for road-paving projects. The Government should lay down the specifications of recyclable C&D materials as soon as possible, so as to enable the recycling firms to manufacture recyclable construction materials according to the Government's approved specifications. The Government should also lay down its green procurement policy in order to boost the demand for recyclable materials and to expand the local market for green products.

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² 11.7 million tonnes(1998)+13.5 million tonnes(1999)/2 =12.6 million tonnes