

壹 加強公共工程計畫與經費審議

本會審議之作業主要係著重於工程技術審查，配合工程進度與造價提供相關意見及基於督導、協調立場協助工程主辦機關解決問題。

九十年一月一日起實施之「政府公共工程計畫與經費審議作業要點」，本會據以參與九十一年度各類型公共工程計畫與經費之年度先期審議成果詳附表，未來將加強宣導推廣各工程主辦機關於編列工程預算時，確實依照作業要點之機制及「公共建設工程經費估算編列手冊」之相關工程作業要素及成本原則辦理，以發揮工程專業審議功能，並達成預算支出與工程進度密切配合，進而合理撙節公共工程相關資源。

1 Strengthening of Public Construction Planning and Spending Review

The PCC's review work is focused mainly on the examination of construction technology, the offering of opinions on the progress and pricing of construction, and, from a supervisory and coordination standpoint, the provision of assistance in solving problems for the agencies in changes of construction projects.

Based on the Guidelines for the Review of Public Construction Plans and Budgets, which were implemented on Jan. 1, 2001, the PCC participated in the annual preliminary review of the different types of construction projects and budgets for fiscal 2002. (The results are shown in the accompanying chart.) In the future, the PCC will strengthen publicity and promotion for each agency in charge of construction projects to act in accordance with the engineering operating factors and costing principles contained in the Guidelines as well as the "Handbook for Estimating Public Construction Expenditures" when allocating budgets for those projects, so as to manifest the professional review function and achieve close coordination between budget spending and the progress of construction, as well as to achieve a reasonable saving of resources related to public construction.



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附表 九十一年度各類型公共工程計畫與經費年度先期審議成果彙總表

Results of Preliminary Annual Review of Public Construction Plans and Budgets for 2002

計畫類型 Type of Project	件數 No. Cases	總經費 Total Spending				年度經費 Annual Spending			
		函報總經費 Requested Budget	總經費 Budget Proposed by PCC	試列金額 Reduction	總經費核 列百分比 % of Budget Approved	函報年 度經費 Requested Budget by PCC	本會核定 年度經費 Budget Proposed	緩列金額 Reduction	年度經費核 列百分比 % of Budget Approved
一、公共建設計畫 1. Infrastructure Projects	260	5,210,405,550	--	--	--	478,363,087	384,022,999	94,340,088	80.28%
延續Continued	204	4,636,295,081	--	--	--	441,517,261	364,773,029	76,744,232	82.62%
新興New	56	574,110,469	567,999,369	6,111,100	98.94	36,845,826	19,249,970	17,595,856	52.24%
二、重要社會發展計畫 2. Important Social Development Projects	63	42,879,457	--	--	--	16,616,980	13,840,829	2,776,151	83.29%
延續Continued	41	28,213,406	--	--	--	8,483,159	6,937,179	1,545,980	81.78%
新興New	22	14,666,051	14,260,165	45,886	99.69	8,133,821	6,903,650	1,230,171	84.88%
三、重要科技計畫 3. Important Technology Projects	4	827,935	--	--	--	219,630	209,630	10,000	95.45%
延續Continued	4	827,935	--	--	--	219,630	209,630	10,000	95.45%
新興New	0	--	--	--	--	--	--	--	--
四、五千萬元以上公務預算 4. Government Budgets over NT\$50 million	44	16,401,877	--	--	--	6,034,952	3,851,433	2,183,519	63.82%
延續Continued	33	14,862,825	--	--	--	4,591,952	3,664,933	927,019	79.81%
新興New	11	1,539,952	1,539,952	0	100.00	1,443,000	186,500	1,256,500	12.92%
五、非營業基金計畫 5. Non-business Foundation Projects	13	2,825,819	--	--	--	1,861,505	1,749,505	112,000	93.98%
延續Continued	8	2,825,819	--	--	--	1,491,665	1,441,665	50,000	96.65%
新興New	5	--	--	--	--	369,840	307,840	62,000	83.24%
六、營業基金計畫 6. Business Foundation Projects	33	114,831,783	--	--	--	70,115,363	68,423,823	1,691,540	97.59%
延續Continued	28	111,938,333	--	--	--	69,360,391	67,668,851	1,691,540	97.56%
新興New	5	2,893,450	2,893,450	0	100.00	754,972	754,972	0	100.00%
七、軍事工程計畫 7. Military Engineering Projects	34	34,803,375	--	--	--	6,706,394	6,202,394	503,897	92.49%
延續Continued	24	34,327,921	--	--	--	6,271,282	5,964,286	306,996	95.10%
新興New	10	475,454	475,454	0	100.00	435,009	238,108	196,901	54.74%
八、其他計畫 8. Other Projects	3	2,100,000	--	--	--	2,103,000	2,103,000	0	100.00%
延續Continued	2	2,100,000	--	--	--	2,100,000	2,100,000	0	100.00%
新興New	1	--	--	--	--	3,000	3,000	0	100.00%
合計 Total	344	4,831,391,320	--	--	--	534,035,340	452,759,573	81,275,767	84.78%
延續Continued	110	593,684,476	587,527,490	6,156,986	98.96	47,985,468	27,644,040	20,341,428	57.61%
合計 Total	454	5,425,075,796	--	--	--	582,020,808	480,403,613	101,617,195	82.54%

貳 促進民間參與公共建設

基於政府當前財政狀況，推動民間參與公共建設為現階段重要政策。民間參與公共建設除可減輕政府財政負擔，並可將民間資金及經營、管理效率引進公共建設，實可為國內公共建設的發展及經濟景氣的成長，帶來一新的契機。

本會推動民間參與公共建設之重點著重在整合研訂相關法規及建立整體推動架構。其推動情形如下：

一、整合研訂相關法規，法規基礎漸趨完備

本會、內政部及財政部已陸續公布促進民間參與公共建設法（以下簡稱促參法）之重要相關子法十項，如：促參法施行細則、重大公共建設範圍、公有土地出租及地上權租金優惠辦法、民間機構參與重大公共建設免納營利事業所得稅及適用投資抵減辦法、民間參與公共建設進口貨物免徵及分期繳納關稅辦法、甄審委員會組織及評審辦法等。此外，經建會亦訂定促進民間參與公共建設優惠貸款要點，以增加民間籌資管道。

二、建立整體推動架構

1. 成立「促進民間參與公共建設協調推動小組」，以策訂政策推動方向及協調解決個案所涉跨部會問題。
2. 策訂「促進民間參與公共建設推動方案」及相關配合推動措施，以加速推動民間參與公共建設。
3. 訂頒民間參與公共建設貢獻卓越獎方案及頒發

2 Promotion of Private Participation in Infrastructure Projects

Given the government's current fiscal situation, the promotion of private participation in infrastructure projects is an important policy. In addition to lightening the government's financial burden, private participation can inject private capital as well as the operating and management efficiency of the private sector into public construction, and this can bring new opportunities for the development of domestic public construction and the performance of the economy.

The PCC's promotion of private participation in infrastructure projects is focused on integrating and formulating related laws and regulations, and on establishing an overall framework for implementation. The status of implementation is as follows:

A. Formulation of Related Laws and Regulations to Provide a Complete Regulatory Foundation

The PCC, the Ministry of the Interior, and the Ministry of Finance have promulgated a total of 10 major subsidiary laws related to the Law for the Promotion of Private Participation in Infrastructure Projects, including the Implementation Regulations for the Law for the Promotion of Private Participation in Infrastructure Projects, Scope of Important Infrastructure Projects, Preferential Methods for the Leasing of Public Lands and Above-Ground Leasing Fees, Regulations Governing Business Income Tax Exemptions and Investment Tax Credits for Private Organizations Participating in Infrastructure Projects, Regulations Governing Tariff Exemptions and Time Payment of Tariffs for Goods Imported for Private Participation in Infrastructure Projects, and Screening Committee Organization, and Review Methods. In addition, the Council for Economic Planning and Development has mapped out Guidelines for Preferential Loans for Private Participation in Infrastructure Projects in order to add more channels for the raising of funds by private enterprises.

B. Establishment of an Overall Promotion Framework

- (a) A Coordinating Team for the Promotion of Private Participation in Infrastructure Projects has been established to map out policy promotion directions and provide coordination for resolving cross-ministerial problems of individual cases.

促進民間參與公共建設協調推動小組優先輔導推動案件

Priority Cases of Guidance by the Coordinating Team for the Promotion of Private Participation in Infrastructure Projects

公共建設案件名稱 (計畫規模/億元) Case(Project Size, NT\$ million)	民間參與投資規模(億元) Private Investment (NT\$ million)	公共建設案件類別 Type of Construction	民間參與方式 Method of Private Participation
1.行政院勞工委員會－勞工教育學苑公設 民營案 (9.7億元) Council of Labor Affairs - Labor Education Academy with Public Construction and Private Operation (970)	0.3-0.5 30-50	勞工福利設施 Labor welfare facilities	OT
2.經濟部國貿局－台北世貿南港展覽館、 旅館及商業娛樂設施 (347.9億元) Board of Foreign Trade, MOEA - Nankang Exhibition Hall, Hotel, and Entertainment Facilities for the Taipei World Trade Center (34,790)	132.5 13,250	重大商業設施 Major commercial facilities	BOT
3.行政院衛生署－台南醫院新化分院、 新營醫院北門分院合併委託經營 (5.36億元) Department of Health - Merger and Commissioned Operation of the Hsinhua Branch of the Tainan Hospital and Peimen Branch of the Hsinying Hospital (536)	2 200	衛生醫療設施 Medical facilities	OT
4.交通部觀光局－民間參與大鵬灣國家風景區 建設BOT案 (266億元) Tourism Bureau, MOTC - Private BOT Construction in the Tapeng Bay National Scenic Area (26,600)	175 17,500	觀光遊憩及森林遊樂重大設施 Major tourism, recreational, and forest recreation facilities	BOT
5-1.交通部民航局－推動民間參與桃園航空 貨運園區建設計畫 Civil Aeronautics Administration, MOTC - Private participation in the construction of the Taoyuan Air Cargo Park	200	交通建設航空站及其設施 Air terminal and related facilities	BOT
5-2.交通部民航局－推動民間參與桃園航空 客運園區建設計畫 (200億元) Civil Aeronautics Administration, MOTC - Private participation in the construction of the Taoyuan Air Passenger Park (20,000)	20,000		
6.行政院農委會林務局－奧萬大森林遊樂區 提供民間投資經營 (6億元) Forestry Bureau, Council of Agriculture - Private investment in and operation of the Aowanta Forest Recreation Area (600)	6 600	森林遊樂重大設施 Major forest recreation acilities	BOT/ROT
7.行政院體委會－興建台灣省現代化大型 體育館計畫 (33億元) National Council on Physical Fitness and Sports - Construction of large modern stadium for Taiwan Province (3,300)	33 3,300	運動設施 Sports facilities	BOT
8-1.教育部－國立成功大學興建宿舍案 (2億元) Ministry of Education - Construction of dormitories for National Cheng Kung University (200)		文教設施 Educational facilities	BTO
8-2.教育部－國立台灣大學地下停車場案 (6億元) Ministry of Education - Underground parking lot for National Taiwan University (600)	2 200		BOT
8-3.教育部－國立交通大學育成中心案 (5億元) Ministry of Education - Incubation Center for National Chiao Tung University (500)	5 500		BOT
9.台北市政府－市政府轉運站獎勵民間投資興建 營運案 (25億元) Taipei City Government - Private investment in and operation of city government hub (2,500)	25 2,500	轉運站 Transportation hub	BOT
10.內政部營建署－台東縣知本溫泉渡假專用區 (47.8億元) Construction and Planning Administration, MOI - Chihpen Hot Spring Resort Area (4,780)	47.8 4,780	觀光遊憩及森林遊樂重大設施 Major tourism, recreational, and forest recreation facilities	BOT
11.交通部基隆港務局－徵求民間機構參與興建營運 台北港貨櫃儲運中心 (208億元) Keelung Harbor Bureau, MOTC - Private in vestment in and operation of Taipei Harbor Container Terminal (20,800)	208	港埠與其設施 Port and related facilities 20,800	BOT
12.台北縣政府－民間參與台北捷運系統環狀線 建設計畫 (1100億元) Taipei County Government - Construction of Taipei MRT loop line facilities (110,000)	190 19,000	大眾捷運系統 Mass rapid transit system	BOT/OT

作業要點，特優之政府團隊將獲頒獎金一百萬元，民間團隊獲頒獎座。

4. 建置支援機制：建立諮詢專家顧問資料庫，並編製公告、甄審作業手冊，以供主辦機關執行之參考。
5. 建立推動示範案例：選擇十二件代表個案，予以專案輔導推動，以建立示範推動案例。

三、辦理推廣訓練，建立各機關執行共識

對一級主管、民間公司高階主管或承辦人員，辦理一系列之推廣訓練，並於九十年二至三月期間赴中央及地方政府主辦機關，舉辦二十三場座談會，了解主辦機關執行問題。

參 編撰隧道工程技術準則

台灣地質構造錯綜複雜，隨著公共工程建設的增多，隧道工程所佔之比例及規模亦相對提高，估計未來公共工程中隧道總長約達480公里，概估工程經費高達三千億。

早期國內隧道以小斷面為主，近期隧道之長度及斷面不斷增大，所面臨之挑戰亦更加艱鉅。建立一套完整之「隧道工程技術準則」，應為國內隧道工程界當務之急。

本會自八十八年十一月起即蒐集國內111個隧道工程案例資料，25個國外著名隧道工程案例，建置成台灣地區隧道工程資料庫，以供決策與執行上之參考。預期在九十一、九十二年度可完成「隧道工程技術準則」的編撰，將台灣過去二十幾年來所

累積之隧道設計及施工實務經驗予以彙整，並儘可能納入最新之隧道技術，俾使工程執行者於未來辦理隧道工程之際有所遵循及參考。

肆 推動綠營建

近年來，天然災害不斷地發生，使得人們警覺到，肆意破壞大自然，將導致大地反撲，浩劫連連。為了維護地球資源的永續利用，增進人類更大的福祉，對於已遭受不同程度破壞的自然環境，必須設法加以復育治理，對於尚未破壞但有遭受破壞之虞者，應如何妥善保護及適當保育，亟需生態保育學者與工程技術人員攜手共同努力。

因此，本會協調內政部、交通部、經濟部及農委會成立「生態工法推動小組」，擇定國家公園、國家風景區及河溪整治等公共工程先行試辦，並完成「推動綠營建工程評估審議制度及評估指標之研究」及「道路工程建立綠營建工程設計規範及設計準則之研究」等二件委託研究案，以結合生態學與工程學等二領域之產、官、學界看法，作為後續推動之參考，期使綠營建在解決國內生態環境及資源有效利用上，發揮最大效益，達到災害防止與環境保育之目的。

伍 健全公有建築工程作業

為使各機關辦理公有建築工程作業時，能兼顧其特殊性並考量符合政府採購相關法令規定，本會遂以「各機關辦理公有建築物作業要點」為架構，整編成「各機關辦理公有建築物作業手冊」，供各機關參採。

- (b) An Implementation Program for the Promotion of Private Participation in Infrastructure Projects along with related coordinating promotion measures has been worked out in order to accelerate the promotion of private participation.
- (c) An award of excellence program for private participation in infrastructure projects, along with guidelines for the granting of the awards, has been formulated. Under this program, government groups with an especially outstanding performance are awarded NT\$1 million, and private-sector groups are awarded plaques.
- (d) An expert consultants databank has been set up, and announcement and screening operations manuals have been published for the reference of agencies carrying out public construction projects.
- (e) Twelve representative cases have been chosen for special guidance and promotion in order to establish demonstration promotion cases.

C. Extension Training and Establishment of Consensus on Implementation

A series of extension training courses were held for first-grade government officials and top officials (or executives in charge of projects) of private companies, and 32 seminars were held in February and March, 2001 for agencies at the central and local government levels with the aim of gaining an understanding of the problems faced by the agencies in charge of projects.

3 Compilation of Tunnel Engineering Technical Standards

Because of the irregularity and complexity of Taiwan's geologic structure, the ratio and scale of tunnel engineering have increased along with the increase in infrastructure work. The total length of tunnels included in future infrastructure projects is estimated at approximately 480 kilometers, and the cost of building these tunnels is estimated at NT\$300 billion.

In early years tunnels in Taiwan consisted mainly of small excavation profiles; but tunnel length and excavation profile of tunnels have both increased constantly in recent years, and the difficulty of the challenges presented in their construction has grown accordingly. The establishment of a complete set of

"Tunnel Engineering Technical Standards" is an urgent task for domestic tunnel engineers.

In November 1999 the PCC began collecting data on 111 domestic tunnel engineering cases and 25 well-known foreign tunnel engineering cases for compilation into a tunnel engineering database for the Taiwan area, to be used as a reference in decision making and construction implementation. The compilation of the Tunnel Engineering Technical Standards should be completed in 2002 or 2003, encapsulating the tunnel design and construction experience built up in Taiwan over the past 20-odd years and containing as much of the latest tunnel technology as possible so that those who carry out tunnel construction in the future will have standards to follow and use as a reference.

4 Promotion of Green Construction

Natural disasters have been a constant occurrence in recent years, alerting people to the fact that wanton destruction of nature will cause the earth to strike back with an endless string of calamities. To assure the sustainable use of the earth's resources and advance the greatest welfare of mankind, we must find ways to restore and rectify the natural environment from the varying degrees of damage to which it has been subjected; and, in regard to places which have not yet been damaged but which may suffer harm, we should carry out appropriate protection and conservation. For this, concerted efforts by environmental conservation scholars and engineering technicians are urgently needed.



本會辦理民間參與觀光遊憩設施聯合招商說明會

陸 整合公共工程技術資料庫

一、劃一及整編公共工程施工綱要規範及工程項目編碼

繼續增編公共工程施工綱要規範(完整版)為664章及工程細目編碼規則表413章，供工程界參採應用，並訂定「公共工程施工綱要規範實施要點」供各機關施行應用。

二、建構公共工程工料價格資料庫與調查機制

繼續出版「營建物價」雜誌，供各界參考應用，另為增進工料組合單價與人、機、料、資源價格之正確性，本會發函各工程主辦機關收集歷史標案且因應未來大量歷史標案之蒐集、統計、分析與研判，需借重資訊化之方式加以處理，特訂定「公共工程招標文件增列提供標案資料作業要點」，俾建立價格資料庫，作為各機關編列預算及核定底價之參考。

三、推廣「公共工程經費估價電腦系統」

辦理推廣研習班、說明會、上線輔導及建立網際網路服務，將成果推廣至各工程主辦機關，以期達到經費編列及審查自動化，提升工作效率。

四、「基層公共工程基本圖彙編」推廣

本會已經於八十九年度完成「基層公共工程基本圖彙編（第二版）」，並分送各基層單位參考，為持續推廣及修正之基本圖彙編，九十年完成事項如下：

- (一) 完成基本圖推廣研習班四梯次，分北中南三區分別實施。
- (二) 完成「基層公共工程基本圖彙編」（第三版）。



For this reason the PCC coordinated with the Ministry of the Interior, Ministry of Transportation and Communications, Ministry of Economic Affairs, and Council of Agriculture for the establishment of a Task Force for the Promotion of Ecological Engineering, and chose such public construction works as national parks, national scenic areas, and river rectification for its preliminary trial operation. Two studies were also commissioned, one on "An Assessment System and Assessment Indexes for the Promotion of Green Construction" and the other on "The Establishment of Green Engineering Design Regulations and Design Standards for Road Construction," with the aim of bringing together the views of the industrial, governmental, and academic sectors in the fields of ecology and engineering for use as a reference in follow-up promotion. This is being done to enable green construction to manifest its greatest effectiveness in resolving domestic environmental problems and effectively utilizing resources so as to achieve the goals of disaster prevention and environmental conservation.

5 Strengthening of Engineering Operations for Public Structures

To enable government agencies to consider both special characteristics and conformity with laws and regulations governing government procurement when they engage in the construction of public structures, the PCC has compiled a "Public Construction Operations Manual for Government Agencies" based on the "Operating Guidelines for Public Construction by Government Agencies" and supplied it to the different agencies for reference.

6 Integration of Public Construction Technology Databanks

A. Unification and Compilation of Public Construction Outline Specifications and Coding of Engineering Items

Work has continued on the additional compilation of Outline Specifications for Public Construction (complete edition) in 664 chapters and Detailed Public Construction Codes in 413 chapters for the use of the construction sector, and the "Implementation Guidelines for Public Construction Outline Specifications" were formulated and supplied to government agencies for use in carrying out

construction work.

B. Establishment of a Public Construction Cost Databank and Survey Mechanism

The PCC continued publishing "Construction Prices" magazine and supplying it for use by various sectors; and, to advance the accuracy of unit prices for construction material combinations as well as the prices of manpower, machinery, materials, and resources, the PCC has contacted the agencies in charge of construction work to collect historical data on bidding cases for use in the collation, statistical compilation, analysis, and evaluation of historical cases in large numbers. In addition, Operating Guidelines for Additional Bidding Data for Public Construction Bidding Documents have been formulated and a cost databank has been established for the reference of the agencies in compiling budgets and setting floor prices.

C. Promotion of the Computerized Public Construction Cost Estimation System

Extension seminars, symposiums, and online guidance were organized, and Internet services were established, in order to extend the fruits of this system to the agencies in charge of construction with the aim of achieving automation of cost budgeting and investigation, and thereby upgrading the efficiency of this work.

D. Extension of Basic Charts for Basic-Level Public Construction

The PCC completed the "Basic Charts for Basic-Level Construction (Second Edition)" in 2000 and distributed them to the different basic-level agencies for reference. The following tasks were completed in fiscal 2001 with the aim of continuously extending and revising the Basic Charts:

- (a) Four series of Basic Chart extension seminars were held in northern, central, and southern Taiwan.
- (b) The "Basic Charts for Basic-Level Construction (Third Edition)" were completed.