

行政院及所屬各機關出國報告
(出國類別：其他)

參加亞洲開發銀行「協助開發中國家更新及建構供給與使用表初始會議」實錄

服務機關：行政院主計總處

姓名職稱：王淑娟 簡任視察、歐怡樺 研究員

派赴國家：菲律賓馬尼拉

出國期間：104年4月7日至4月10日

報告日期：104年5月19日

摘 要

供給與使用表(Supply and Use Table, SUT)為聯合國國民經濟會計制度(SNA)建議編算的重要帳表之一，可完整陳示整個經濟體系中，各種商品與服務的來源與流向，為建構各國或國際投入產出表(Input-Output Table, IOT)之基礎。亞銀鑑於會員經濟體中，目前僅少數採行聯合國最新 2008SNA 規範編製 SUT，爰仿 2008 年推動之「協助開發中國家依 1993SNA 編製 SUT」計畫，於今(2015)年提出「協助開發中國家更新及建構供給與使用表計畫」(R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies)，預計於 2018 年底前，協助各參與國完成依據 2008SNA 規範，更新 SUT 基本表，以及回溯修正 SUT 年表時間序列資料，以提升各國統計品質，並進一步用以建構亞洲地區國際 IOT，以利整合跨國投入產出統計，瞭解國際間附加價值貿易(Trade in Value-added, TiVa)狀況，將是全球價值鏈(Global Value Chain)分工模式下的重要決策參據。

本次會議為此計畫的初始會議，於 104 年 4 月 8 日至 4 月 9 日假菲律賓馬尼拉亞銀總部舉行，首先由亞銀本計畫專案負責人說明計畫概要、各國共同討論及修訂合作架構(Framework of Partnership)，並由經濟學家 Dr. Guntur Sugiyarto 介紹 SUT 之應用，隨後由各國與會代表介紹各國國民所得統計編製現況並接受提問。

會議最後亞銀預告將於 6 月份召開 2008SNA 編製技術訓練研討會議，希望各國預為安排。

目 次

壹、參加緣由.....	1
貳、出席會議經過	2
參、會議重點.....	4
一、SUT 基本架構及其應用.....	4
二、計畫概覽	8
三、各國 SNA 編製概況	9
肆、結論與心得	14
附錄一、會議議程	15
附錄二、合作架構書(Framework of Partnership).....	17
附錄三、我國簡報	20
附錄四、各國簡報 Q & A	22

壹、參加緣由

國民所得帳是以經濟量數陳示一國經濟活動總成果，聯合國為協助各國統計編算，並便於國際比較，於 1953 年研訂第一套國民經濟會計制度(System of National Accounts, SNA)，簡稱 53SNA，期間隨著經濟情勢的迅速變動，於 1968 及 1993 年依最新經濟理論發展及各國實際需要，分別修訂 SNA，而最新修訂的 2008SNA 版本，已於 2009 年推出並建議各國積極採行。

供給與使用表(Supply and Use Table, SUT)為聯合國國民經濟會計制度(SNA)建議編算的重要帳表之一，可完整陳示整個經濟體系中，各種商品與服務的來源與流向，為建構各國或國際投入產出表(Input-Output Table, IOT)之基礎。亞洲開發銀行(以下簡稱亞銀)鑑於會員經濟體中，目前僅少數採行聯合國最新 2008SNA 規範編製 SUT，爰仿 2008 年推動之「協助開發中國家依 1993SNA 編製 SUT」計畫，於今(2015)年提出「協助開發中國家更新及建構供給與使用表計畫」(R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies)，預計於 2018 年底前，協助各參與國完成依據最新的 2008SNA 規範，更新 SUT 基本表，以及回溯修正 SUT 年表時間序列資料，以提升各國統計品質，俾利國民所得帳之編算能符合新的發展以及滿足持續增加的資料使用者之需求，並進一步用以建構亞洲地區國際 IOT，以利整合跨國投入產出統計，瞭解國際間附加價值貿易(Trade in Value-added, TiVa)狀況，將是全球價值鏈(Global Value Chain)分工模式下的重要決策參據。

此次計畫以上次推動的「協助開發中國家依 1993SNA 編製 SUT」計畫參與國為邀請對象，除我國外，還包括香港、泰國、馬來西亞及中國大陸等計 17 個國家或地區參與。

貳、出席會議經過

本次會議由亞銀主辦，於亞銀總部菲律賓馬尼拉舉行，共有 17 個國家(或地區)¹與會，會議期間自 104 年 4 月 8 日至 9 日，為期 2 天(議程詳附錄一)。

由於本次為此計畫的初始會議，故會議的主要目的凝聚各國共識，會議中除由亞銀該計畫承辦人說明計畫概要、各國共同確認合作架構外，亦介紹 SUT 的架構及其應用價值，然因 SUT 主要是要表達一個經濟體的總體經濟運作機制，因此必須跟各國國民所得統計採行一致的規範，因此會議的另一個重頭戲便是由與會國家分別介紹該國國民所得編製的方法及統計資料來源。

4 月 8 日上午完成報到後，舉行簡單的開幕儀式，由亞銀本計畫主辦單位經濟研究及區域合作處(Economic Research and Regional Cooperation Department, ERD)之發展、指標及政策研究部門(Development, Indicators and Policy Research Division, ERDI)主管 Dr. Rana Hasan 致歡迎詞，感謝各國參加此計畫，並強調各國編製 SUT 的重要性，藉由 SUT 及 IOT 分析，提供決策者具體而明確的影響評估數據，才能推出具實證基礎的政策(evidence-based policy)，例如經濟學家要建議決策者擴大基礎建設投資時，應用 SUT 及 IOT 分析新增建設投資計畫所帶來的就業、所得、消費等的帶動效果，以具體資料呈現將更具說服力；接著由 ERD 副首席經濟學家兼副處長莊巨忠(Dr. Zhuang Juzhong)致開幕詞，說明在全球價值鏈(Global Value Chain)分工模式盛行下，SUT 及 IOT 這樣的細緻帳表，才能進行更深入的決策分析，他舉近期赴 IMF 開會所討論的人民幣值議題為例，一般只看貿易總額等順逆差資料，很有可能作出人民幣應該升值或貶值的結論，然此次 IMF 的會議，應用國際 IOT 將此議題進行分析，結論卻是：人民幣升值將對亞洲多數國家不利，而非僅不利於中國大陸出口而已；以此具體案例強調各國建立 SUT 或 IOT 的重要性，期勉各國積極參與俾對各國決策分析有所貢獻；此外，本次與會的二位外聘顧問分別是 Mr. Alick Nyasulu (Statistician, United Nations Statistical Institute for Asia and Pacific)及 Ms. Zeynep Orhun Girard (Statistician, United Nations ESCAP)，亦分別期勉各參與國，藉此計畫提升各國編製國民所得

¹本次會議參與國家或地區分別為孟加拉、不丹、汶萊、柬埔寨、中國大陸、香港、印尼、寮國、馬來西亞、馬爾地夫、蒙古、尼泊爾、巴基斯坦、斯里蘭卡、泰國、越南及我國；斐濟、菲律賓、新加坡及印度尚未承諾參加。

統計能量。

接著由各國與會代表先行簡單自我介紹後，便開始由亞銀工作人員 Mr. Mahinthan Joseph. Mariasingham (Statistician and Project Officer)簡報本項計畫的目的及此會議希望達成的目標、計畫時程(重點摘錄於第參章第二節)後，接著與各國逐條確認合作架構書(Framework of Partnership，詳附錄二)，俾便確認亞銀與各參與國間的分工，條列本計畫執行期間(2015年2月至2018年12月)，亞銀與各國所應辦理的事項與責任。

由於合作架構書討論甚久，議程受到延誤，因此下午僅由亞銀 Ms. Eileen Capilit (Economics and Statistics Officer)簡報本計畫的執行方針，另外由亞銀資深經濟學家 Dr. Guntur Sugiyarto 介紹 SUT 的架構及其應用價值，並舉實際分析的例子供與會者參考。原本議程安排的 2008SNA 與 1993SNA 差異介紹則延至下次會議說明；最後由 Ms. Eileen Capilit 簡介 ICP 的 PPP 編製歷程及其應用，另也說明未來發展進程。

4月9日全日安排各國報告，各國依亞銀要求說明各國編製背景資料(範圍、資料來源、資料分類)、編製方法、1993/2008SNA 採行情形，各國採行 2008SNA 所遭遇挑戰及未來發展重點，16 個國家²逐一報告並接受提問討論(重點摘錄於第參章第三節及附錄四)，最後，亞銀預告 6 月份將召開 2008SNA 及 SUT 技術訓練會議，並由 ERDI 主管 Dr. Rana Hasan 致謝後，結束此次會議。

² 巴基斯坦未提報告。

參、會議重點

本次會議主要目的係讓各國了解 SUT 的重要性，除了由各國利用 SUT 架構編製符合 2008SNA 精神的國民所得帳外，亞銀則利用各國所建構的 SUT，進一步建立亞洲地區國際 SUT 或 IOT，將更能滿足全球分工模式下的貿易附加價值分析。本章第一節將說明 SUT 基本架構及 Dr. Guntur Sugiyarto 介紹之相關應用；第二節記錄 Mr. Mahinthan Joseph. Mariasingham 及 Ms. Eileen Capilit 說明有關本計畫的目的及計畫時程、執行方針等重點；第三節介紹與會國家中已採 2008SNA 者的編製概況。

一、SUT 基本架構及其應用

SUT 為一個可以詳細完整描述經濟運作全貌的統計表，除可表達商品及服務的供給(Supply)來源(國產及進口)、使用(Use)去向(中間消費或最終消費)，藉由供需平衡的方法，比對來自不同調查或公務統計等經濟統計資料，使國民所得帳的生產面、支出面及所得面能達到真正的一致性，有助於提升國民所得統計的準確性，也是國家經濟分析、政策規劃的基礎工具，尤其在目前這個高度全球化的市場結構下，更是凸顯其重要性，除為投入產出矩陣的前身外，亦是國際 SUT 及國際 IOT 的基礎。

(一)SUT 架構

SUT 是由商品及服務的供給表和商品及服務的需求表組合而成(詳表 1)，供給表顯示商品及行業(以基本價格計算)的生產組合，橫列表該商品由哪些行業生產，縱列表該行業生產哪些商品；使用表則表示商品及服務的流向(以購買者價格計算)，縱列分別為中間部門、最終部門(家計、政府)、固定資本形成(含存貨)及出口，橫列則為各部門使用的商品或服務項目。由於使用表所蒐集到的原始資料為以購買者計價基礎的商品，其中可能為進口商品，故為滿足供給等於使用的等式，供給表中的縱項需再列出進口、運銷差距及稅(扣掉補助金)等項目，如此便可以完成供需平衡的 SUT。

就基本年而言，SUT 與 IOT 最大的不同在於 SUT 是由原始調查資料整理

而得，尚未經商品純化處理，其架構為行業(縱向)與商品(橫向)所組合而成的正方形或矩形(商品數大於行業數)矩陣，而 IOT 則因經濟分析需要，在不同的技術假設下，需將原始資料重新分配整理，其架構為商品與商品所組成的對稱矩陣，換句話說，SUT 是編製 IOT 的前身，因為供給表就像是 IOT 的生產矩陣(make matrix)，而使用表可說是尚未純化前的商品對產業購買者表(commodity by Industry)。

表 1、SUT 基本架構

	供給(S)				總供給 (購買者 價格)	使用(U)			
	國內生 產總值 (基本價 格)	進口 (c.i.f)	運銷 差距	產品稅 減補助		中間 需要	最終 需要	固定資 本形成	出口
	1	2	3	4		5 =1+2+3+4 =6+7+8+9	6	7	8
商品 (CPC)									
-1									
-2									
..									
K									

(二)IOT 架構

SUT 是產業 I 的概念，主要功能為 SNA 平衡、三面等價工具，也是 IOT 的前身，藉由觀察 SUT 的時間序列，可得知產業結構、附加價值、經濟體對外開放程度等變化趨勢；IOT 以矩陣表示各產品間投入與產出之相互依存關係，基於經濟分析需要，在不同的技術假設下，將原始 SUT 資料重新分配整理，經過假設、純化調整後轉變為產品 C 對產品 C 的矩陣，才能進一步以模型進行分析及經濟政策評估，基本假設如下：

1. 均質(homogeneity)假設：每一產業部門僅生產一種產品(群)，或者說每一種產品只由特定一個產業生產，且僅有一種投入結構(生產技術)。
2. 固定比例(proportionality)或固定係數假設：生產所需原材料及要素投入量為

產出水準的線性函數，即各種投入量大小與產出量成固定比例關係[固定規模報酬(constant return to scale)]，不同部門產出間沒有替代關係。

在滿足均質假設條件下，投入產出表可以陳示如表 2。目前 OECD-WTO TiVA 資料庫已納入我國資料。

表 2、IOT 基本架構

		中間需要部門(產業別)					最終需要部門						生產總額	
		1	...	j	...	n	合計	民間消費	政府消費	資本形成	出口	進口		合計
中間投入	1	X_{11}	...	X_{1j}	...	X_{1n}	W_1	C_1	G_1	I_1	E_1	$-M_1$	F_1	X_1
	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	i	X_{i1}		X_{ij}		X_{in}	W_i	C_i	G_i	I_i	E_i	$-M_i$	F_i	X_i
	⋮	⋮		⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	n	X_{n1}	...	X_{nj}	...	X_{nn}	W_n	C_n	G_n	I_n	E_n	$-M_n$	F_n	X_n
	合計	U_1	...	U_j	...	U_n	W	C	G	I	E	$-M$	F	X
原始投入	1	V_{11}	...	V_{1j}	...	V_{1n}	V_1							
	⋮	⋮	⋮	⋮	⋮	⋮	⋮							
	k	⋮		V_{kj}		⋮	V_k							
	⋮	⋮		⋮	⋮	⋮	⋮							
	m	V_{m1}	...	V_{mj}	...	V_{mn}	V_m							
	合計	Y_1	...	Y_j	...	Y_n	V							
總投入		X_1	...	X_j	...	X_n	X							

(三)應用

藉由 IOT 的各種係數表，在經濟運作效能、技術及價格固定假設下，可進一步運算出產業的向前、向後關聯效果、乘數效果、特定政策介入的誘發效果等，作為產業關聯、政策效益評估(附加價值、勞動力需求、所得等帶動效果)。

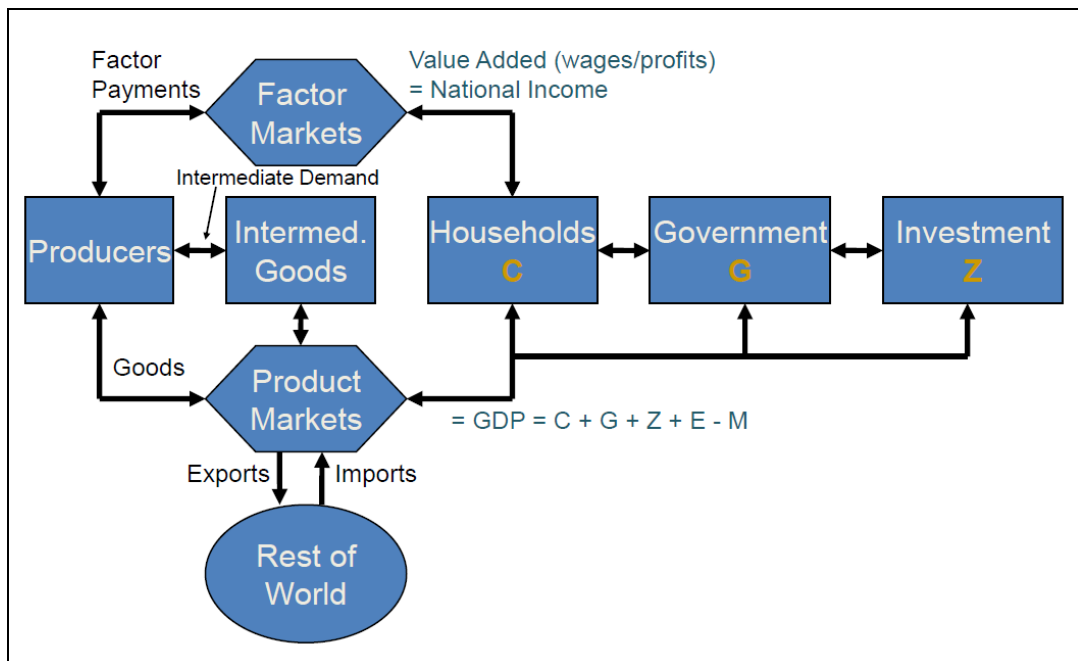
若將整體經濟 IOT 再進一步延伸為社會會計矩陣(Social Accounting Matrix, SAM)，在 IOT 的基礎上增加了非生產性部門(機構帳戶)，如居民、政府、世界其他地區，更詳盡地記錄各種經濟主體間的交易與所得流動，則不僅能反映生產部門之間的聯繫，還能反映非生產部門之間以及非生產部門和生產部門之間的聯繫，SAM 之基本架構陳示如表 3。

表 3 社會會計矩陣(SAM)基本架構

		Expenditures					
		Production	Households	Capital	Government	World	Total
Incomes	Production	A	C	Z	G	E	a
	Households	Y	-	-	G^h	-	b
	Capital	-	S^h	-	S^g	F	c
	Government	-	T^h	-	-	-	d
	World	M	-	-	-	-	e
	Total	a	b	c	d	e	

在 SAM 的架構下，由於經濟主體的多樣化，因此除了可在價格及技術固定之假設下分析多種乘數效果外，亦可透過 CGE 模型(Computable General Equilibrium Model)在價格是可變的情況下，更廣泛地進行各種模擬和分析，以捕捉實際的經濟狀況，提供國家制定各種政策，以 SAM 為基礎之 CGE 模型架構可表示如圖 1。

圖 1：以 SAM 為基礎之 CGE 模型架構



會中 Dr. Guntur Sugiyarto 以 1993 年印尼間接稅率為例，利用 CGE 模型分析舊有稅率、實際稅率及模擬之最佳稅率在各項經濟指標之影響，並強調：當欲分析的問題很基礎時，如投資對各部門之帶動效果、如何創造較多的就業機會，則利用 IO 模型即可，但若要分析更動態的問題，且資料可取得，亦有足夠的分析時間時，才會利用 CGE 模型進行分析，此外，無論何種模型，分析時必須留意模型的假設及限制。

二、計畫概覽

(一)計畫緣起：

聯合國統計委員會在 2008 年建議各國採行 2008SNA，俾掌握最新發展、切合使用者日益增加的需求，然在最近結束的 2011 年國際比較計畫(international comparison program, ICP)中，22 個經濟體中僅有 5 個³採用了 2008SNA 規範、13 個依 1993SNA，其餘 4 個則不同程度的遵循 1968、1993 及 2008SNA 規範。因此，亞銀為協助會員經濟體順利採行 2008SNA，並延續過去依據 1993SNA 所建構的 SUT，因此提出「協助開發中國家更新及建構供給與使用表計畫」，預計於 2018 年底前，協助各參與國完成依據最新的 2008SNA 規範，更新 SUT 基本表，以及回溯修正 SUT 年表時間序列資料。

(二)計畫目標：

- 實證基礎(evidence-based)的決策。
- 為各種經濟現象提供分析工具。
- 與各國國家統計局持續合作辦理經濟統計。
- 維繫亞洲地區 SUTs 及 IOTs 的統計發展。

因此亞銀預期本計畫完成後，各國具有編製 SUT 基本表(benchmark table)及更新歷史資料的能力，各國也因此將國民所得統計編製標準改採最新的 2008SNA 規範，以增進國際資料可比較性，提升各國衡量經濟產出統計的能

³ 該項統計是 2014 年當時各國編布狀況，至本次會議召開時，已有 6 個經濟體採行 2008SNA。

量，以可靠及準確的資料來及監測經濟活動的產出。

(三)時程表

亞銀針對本計畫訂有時間表如表 4，惟會中仍強調由於各國基準年資料蒐集時程不同，會根據各國情形彈性調整。

表 4、R-CDTA8838 計畫時間表

階段	時間	計畫進度	主要內容
I	2014 年 12 月 ~2015 年 6 月	準備工作	<ul style="list-style-type: none"> ● 決定參加之經濟體 ● 評估各國 SNA 編製現況 ● 更新相關統計表
II	2015 年 4 月 ~2016 年 7 月	各國依據 2008 SNA 規範更新 SUT	<ul style="list-style-type: none"> ● 建構 SUT 基本表 ● 辦理技術研習會 ● 撰擬 SUT 之背景資料 ● 公布 SUT 基本表並撰擬報告
III	2016 年 6 月 ~2017 年 12 月	採最新資料編製 SUT 的時間序列	<ul style="list-style-type: none"> ● 決定資料年度 ● 舉辦相關技術研討會議 ● 推估 SUT 時間序列 ● 確認及公布各國 SUT 時間序列
IV	2015 年 5 月 ~2018 年 3 月	時間序列之國際 IOT 與 SUT 和雙 邊貿易統計資料 的平衡	<ul style="list-style-type: none"> ● 建構雙邊貿易資料庫 ● 建構國際 SUT 及 IOT ● 技術會議
V	2015 年 2 月 ~2018 年 12 月	國民所得帳編製 人員，就 SUT 所 需進行訓練	<ul style="list-style-type: none"> ● 舉辦區域性及國家型技術研討會

三、各國 SNA 編製概況

各國逐一報告各國 SNA 編製概況(我國簡報詳附錄三)，俾利亞銀掌握各國推動困境，俾適時提供技術支援，本次與會並提報告的 16 個國家中，計有 6 個國家已採行或部分採行 2008SNA，其餘國家多仍停留在 1968 或 1993SNA，以下

僅就已採行或部分採行 2008SNA 者，概述各國改編特色：

(一)我國

- 研發支出(R&D)由中間消費改列固定投資
- 政府部門彙編社會安全基金統計
- 保險服務衡量方法改善(包括再保險視為直接保險處理)
- 實質 GDP 及經濟成長率改以連鎖法取代定基法(1993SNA 規範)
- 2008SNA 建議的中央銀行產出列計方式，已於 2009 年完成改編

(二)汶萊

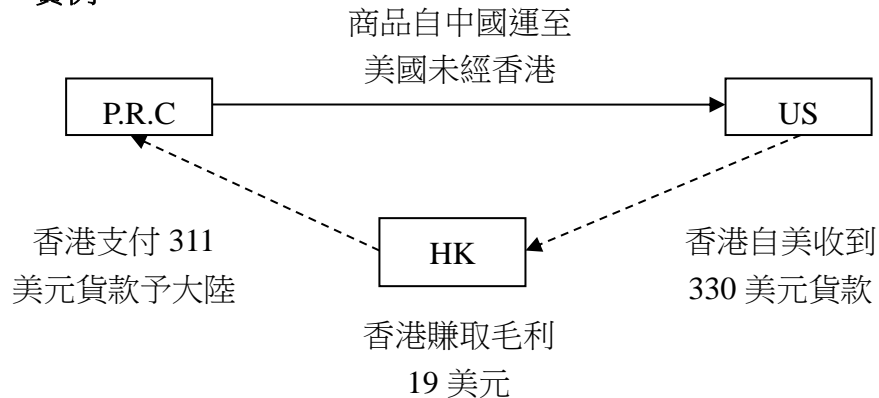
- 2015 年 1 月改以 2010 年為基期，兼採 1993/2008SNA
- 產出以基本價格(Basic price)計算(1993SNA)
- 設算非正規經濟(1993SNA)

(三)香港

- 研發支出資本化
- 以參考利率計算 FISIM(1993SNA)
- 員工股票選擇權計入受僱報酬
- 非法經濟活動未納入產值估算(攤販除外)
- 以所有權移轉原則紀錄商品託外加工及三角貿易

	1993SNA	2008SNA
商品運至國外進行加工	當通過邊境時，分別記錄進口及出口	<ul style="list-style-type: none"> ●當所有權未移轉，不記進、出口 ●加工費用計服務輸入
三角貿易 Merchanting	毛利(商品銷售額-成本)計入服務輸出 Xs	<ul style="list-style-type: none"> ●商品銷售總值記出口(Xg) ●商品銷售成本記負出口(-Xg)

● 實例



過去作法

19 → Xs
311 → 不計 Mg
330 → 不計 Xg

現行作法

19 → 不計 Xs
311 → 記作 Mg(或-Xg)
330 → 記作 Xg

(四)印尼

- 在澳洲統計局(Australian Bureau of Statistics, ABS)協助下，於 2015 年 2 月完成基期年更換(由 2000 年改為 2010 年)及部分採行 2008SNA。
- 首度以 SUT 為架構完成 GDP 改編
- 以基本價格衡量產出(1993SNA)
- 培育性生物資源(1993SNA)、礦藏探勘(1993SNA)、藝術文學原件(1993SNA)、軟體及資料庫計入固定資本形成
- 以 FISIM 方式計算銀行服務費(1993SNA)
- 行業分類改採 ISIC Rev.4 架構
- 採行 2008SNA 所致 GDP 增幅為 2.42%(2010 年)

(五)馬來西亞

- 首度以 SUT 導出 IOT(2010 年)
- 以參考利率計算 FISIM(1993SNA)
- 軍事車輛、潛艦、坦克等設備支出資本化(致固定資本形成增 1%、存貨變動增 3% (2010 年))

- 研發支出資本化[致附加價值增 1%、固定資本形成增 4.3% (2010 年)]

(六)泰國

- 以參考利率計算 FISIM(1993SNA)
- 國防建設資本化(1993SNA)
- 礦藏探勘費用資本化(1993SNA)
- 研發支出資本化

茲將上述各國改編重點及未來發展方向整理如下表：

經濟體	已完成 2008SNA 改編重點	未來發展方向	備註
我國	<ul style="list-style-type: none"> ● 研發支出(R&D)由中間消費改列固定投資 ● 政府部門彙編社會安全基金統計 ● 保險服務衡量方法改善(包括再保險視為直接保險處理) ● 實質 GDP 及經濟成長率改以連鎖法取代定基法(1993SNA 規範) 	<ul style="list-style-type: none"> ● 完成生產面歷史資料追溯修正 ● 完成 IO 年表與修正後 GDP 整合 	<ul style="list-style-type: none"> ● 2014.11 月完成改編
汶萊	<ul style="list-style-type: none"> ● 兼採 1993/2008SNA ● 產出以基本價格計算(1993SNA) ● 設算非正規經濟(1993SNA) 		<ul style="list-style-type: none"> ● 2015 年 1 月改以 2010 年為基期
香港	<ul style="list-style-type: none"> ● 研發支出資本化 ● 員工股票選擇權計入受僱報酬 ● 以參考利率計算 FISIM(1993SNA) ● 非法經濟活動未納入產值估算(攤販除外) ● 以所有權移轉原則記錄商品託外加工及三角貿易 	<ul style="list-style-type: none"> ● 編製部門別 (institutional sectors) 帳表 ● 更新 SUT(上一次編製為參加亞銀 RETA 6483 計畫) 	<ul style="list-style-type: none"> ● 2012 年完成改編 ● 採連鎖法 ● 未編 IOT

經濟體	已完成 2008SNA 改編重點	未來發展方向	備註
印尼	<ul style="list-style-type: none"> ●以基本價格衡量產出(1993SNA) ●培育性生物資源(1993SNA)、礦藏探勘(1993SNA)、藝術文學原件(1993SNA)、軟體及資料庫計入固定資本形成 ●以 FISIM 方式計算銀行服務費(1993SNA) ●行業分類改採 ISIC Rev.4 架構 	<ul style="list-style-type: none"> ●研發支出尚未資本化 ●退休基金尚未歸入政府帳 ●以 2010 年 SUT 繼續編製 2010 年 IOT ●研究以連鎖法衡量實質 GDP ●研究季節調整 	<ul style="list-style-type: none"> ●2015 年 2 月完成改編 ●以 SUT 作為校正基準 ●採行 2008SNA 所致 GDP 增幅為 2.42% (2010 年)
馬來西亞	<ul style="list-style-type: none"> ●以參考利率計算 FISIM(1993SNA) ●軍事武器系統如車輛、潛艦、坦克等設備支出資本化 ●研發支出資本化 	<ul style="list-style-type: none"> ●運往國外進行加工之商品記錄方式之修正：僅記錄加工服務費 ●完成 2011~2013 IO 年表 ●帳戶序列(sequence of accounts)之平衡 ●編製 2010 區域 IOT 	<ul style="list-style-type: none"> ●2010 年之 IOT 由 SUT 導出 ●武器資本化使固定資本形成增 1%、存貨變動增 3% (2010 年) ●研發資本化致附加價值增 1%、固定資本形成增 4.3% (2010 年)
泰國	<ul style="list-style-type: none"> ●以參考利率計算 FISIM(1993SNA) ●國防建設資本化(1993SNA) ●礦藏探勘費用資本化(1993SNA) ●研發支出資本化 	<ul style="list-style-type: none"> ●於 2018 年 6 月前分階段完成 2008 至 2016 年之 SUT 	

肆、結論與心得

由於各界對於亞太地區資料分析需求日增，亞銀為建構完整的跨國經濟數據之時間序列，以進行全面且具有實證基礎之經濟政策分析，遂推動「協助開發中國家更新及建構供給與使用表計畫」以協助各國建立 SUT 時間序列基礎資料，因此亞銀邀請包含我國在內的亞太國家或地區，參與本次計畫。本次初始會議中，經由專家的說明，我們了解 SUT 及 IOT 在經濟政策分析中的重要性，且各國須在相同基礎下編製出 SUT 時間序列，方能讓亞銀整合出亞太地區之 SUT 與 IOT，俾利進一步資料分析。

藉由各國家或地區在會議中簡報之國民所得統計作業現況，讓亞銀及各國得以了解目前各國在 SNA 編製上的差異程度，希望透過此計畫藉由亞銀及相關國際組織的指導，可讓各國儘量在符合 2008SNA 的基礎架構下更新 SUT 基準表及回溯修正 SUT 年表。我國雖於 2014 年完成以 2008SNA 基礎改編國民所得資料，但 SUT 年表之修正工作則因更為耗時費工而尚未完成，經由此次會議，我們不僅能瞭解其他國家的統計工作，並能針對相關議題進行經驗交流，以吸取各國改編 2008SNA 之經驗，進一步精進我國國民所得統計資料之內容及品質，也希望能透過參與本計畫學習如何縮短修正 SUT 年表的方法。

附錄一、會議議程



Supply and Use Tables

R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies



Project Inception Meeting

08-09 April 2015, ADB Headquarters, Manila, Philippines

Agenda

Time/ Duration	Session	Particulars
Day 1 - 08 April		
	Session 1.	Opening Session
08:30 - 09:10		Registration
09:10 - 09:20		Welcome remarks <i>Rana Hasan, Director, ERDI</i>
09:20 - 09:40		Opening remarks <i>Juzhong Zhuang, Deputy Chief Economist and Deputy Director General</i>
09:40 - 10:10		Introduction of participants
	Session 2.	Updating and Constructing the Supply and Use Tables for Selected DMCs (R-CDTA 8838)
10:10 - 10:45		Project overview <i>Mahinthan Joseph Mariasingham, Statistician, ERDI</i>
10:45 - 10:55		Photo session
10:55 - 11:10		Coffee break
11:10 - 11:45		Institutional arrangements and Framework of Partnership <i>Mahinthan Joseph Mariasingham, Statistician, ERDI</i>
11:45 - 12:30		Open Forum
12:30 - 13:30		Lunch break
	Session 3.	Project Implementation Strategies
13:30 - 14:30		Overview of the ADB phased approach to SUT compilation Regional Workplan and Timetable <i>Eileen Capilit, Economics and Statistics Officer, ERDI</i>
14:30 - 15:00		Open Forum
15:00 - 15:00	Session 4.	The UN System of National Accounts Recommendations (For reference) <i>Mahinthan Joseph Mariasingham, Statistician, ERDI</i>
15:00 - 16:00	Session 5.	Applications of Supply and Use Tables <i>Guntur Sugiyarto, Senior Economist</i>
16:00 - 16:20		Open Forum
16:20 - 16:30		Coffee break
16:30 - 17:00	Session 6.	ICP Research Agenda and Development Work <i>Eileen Capilit, Economics and Statistics Officer, ERDI</i>
17:00 - 17:30		Open Forum
17:30 - 20:00		Welcome cocktails

Time/ Duration	Session	Particulars
Day 2 - 09 April		
	Session 7.	Country Practices in Compiling National Accounts
09:00 - 09:30		National Statistics Bureau, Bhutan, <i>Sonam Laendup</i> National Institute of Statistics, Cambodia, <i>Nor Vanndy</i> Department of Census and Statistics, Sri Lanka, <i>Dr. A. J. Satharasinghe</i>
09:30 - 10:00		Open Forum
10:00 - 10:30		Department of Economic Planning and Development, Brunei Darussalam, <i>Aslina Abdulkhan</i> Census and Statistics Department, Hong Kong, China, <i>Gloria Ma</i> Directorate General of Budget Accounting and Statistics, Taipei, China, <i>Yi-Hua Ou</i>
10:30 - 11:00		Open Forum
11:00 - 11:15		<i>Coffee break</i>
11:15 - 11:55		National Bureau of Statistics, People's Republic of China, <i>Li Huaju</i> BPS-Statistics Indonesia, <i>Suryadiningrat and A. Sunarjo</i> Department of Statistics Malaysia, <i>Jamia Aznita Jamal</i> National Statistical Office of Mongolia, <i>Batjargal Badamtsetseg</i>
11:55 - 12:30		Open Forum
12:30 - 13:30		<i>Lunch break</i>
13:30 - 14:00		Lao Statistics Bureau, <i>Samaychan Boupna and Phousavanh Chanthasombath</i> National Economic and Social Development Board, <i>Pattama Teanravisitsagool and Surapol Shrihuang</i> General Statistics Office of Viet Nam, <i>Nguyen Viet Phong</i>
14:00 - 14:30		Open Forum
14:30 - 15:00		Bangladesh Bureau of Statistics, <i>Md. Abdul Ghani and Ziauddin Ahmed</i> National Bureau of Statistics, Maldives, <i>Aishath Shahuda and Aishath Hassan</i> Central Bureau of Statistics, Nepal, <i>Nebin Lal Shrestha and Ishwori Bhandari</i>
15:00 - 15:30		Open Forum
15:30 - 15:45		<i>Coffee break</i>
15:45 - 16:15	Session 8.	Concluding Session
16:15 - 16:30		Closing ceremony

附錄二、合作架構書(Framework of Partnership)

Framework of Partnership
Between the Asian Development Bank ADB and
Participating Economies
for
R-CDTA 8838 – Updating and Constructing the Supply and Use Tables for Selected
Developing Member Countries

I. Purpose

The purpose of this Framework of Partnership (FOP) is to establish the general framework that will guide the program of work between the Asian Development Bank (ADB) and the National Implementing Agencies (NIAs) for R-CDTA 8838 – Updating and Constructing the Supply and Use Tables (SUT) for Selected Developing Member Economies which will be referred to in this document as the R-CDTA.

This FOP enumerates the activities and responsibilities required for the R-CDTA to be implemented from February 2015 until December 2018.

II. Background

Management and coordination of the R-CDTA is needed at two levels: ADB (regional) and economy (national). The R-CDTA is part of the continuing efforts of ADB's Development Economics and Indicators Division (ERDI) to support evidence-based decision making with improved and detailed information on national accounts estimates. The ERDI of the ADB will be responsible for the overall coordination, accountability, implementation, and day-to-day activities of the R-CDTA. The National Implementing Agencies (NIAs) will be responsible for the respective national programs.

III. Roles and Responsibilities of the Asian Development Bank

The ADB will handle daily operational matters, including coordination, project development, preparation, and implementation of the R-CDTA. In order to assist the development of statistical capacities, ADB will be undertaking the following tasks:

- 1 Foster country participation and coordinate the national programs.
 - Recruit DMCs that took part in the 2011 International Comparison Program (ICP) for Asia and the Pacific to participate in the R-CDTA;
 - Coordinate efforts of participating economies through information sharing, training, assistance, and ensure that targets are met;
 - Provide seed money to participating economies, as it may deem appropriate, to help cover data mining and processing costs;
 - Prepare timetables of activities and due dates in consultation with NIAs in participating economies;
 - Organize and conduct regional meetings including data review workshops, and technical discussions;
 - Provide venues, logistic support, materials, and guides to ensure that participants are properly informed.

- 2 Provide mechanisms to ensure economies take full ownership of the program.
 - Ensure full involvement of participating economies in the R-CDTA through effective communication and exchange of views and ideas between ADB and the participating economies;
 - Conduct training courses (demand-basis) for national accounts staff, statisticians and economists in DMEs in estimating and updating SUT and GDP aggregates following the System of National Accounts (SNA) 2008 recommendations; and
 - Promote the application and uses of SUTs and IOTs for policy making.

- 3 Ensure participating countries observe standard classification systems; and perform required data mining and processing.
 - Ensure that uniform standard classification in the participating countries are based on the 2008 SNA recommendations;
 - Updating of correspondence tables of international standards and classification systems based on latest available information from the United Nations Statistics Division;
 - Prepare data assessment forms and relevant documents to assist in the evaluation of economies' census, survey and administrative data required for SUT compilation;
 - Assist economies in assessing on the availability of data to implement SNA 2008 recommendations;
 - Assist economies in the compilation and/or updating of supply and use tables (SUTs); and
 - Supervise all technical and managerial aspects of the R-CDTA.

- 4 Compile SUTs in compliance with the recommendations of the SNA 2008 to the extent possible and prepare the reports required.
 - Assist economies in processing and analyzing country data for the compilation and/or updating of SUTs in accordance with the SNA 2008;
 - Develop and/or update SUT prototype matrices;
 - Publish and disseminate the reports required as per R-CDTA Concept Paper; and
 - Promote policy oriented uses of the data.

- 5 Compile annual time series SUTs for selected DMEs and publish reports.
 - Identify economies to be included;
 - Reconcile published national accounts and benchmark SUT for selected economies;
 - Publish and disseminate the report; and
 - Promote policy oriented uses of the data.

- 6 Compile time series Asian International SUTs and Input-Output Tables (IOTs) that are harmonized with national SUTs and bilateral trade statistics and published reports.
 - Construct bilateral trade database required for constructing international SUTs and IOTs ;

- Convert national currency SUTs into common currency;
- Construct and balance international SUTs;
- Estimate Asian international IOTs; and
- Publish and disseminate the report.

IV. Roles and Responsibilities of the National Implementing Agency

At the national level, implementation of the R-CDTA is expected to be the responsibility of the agency in charge of national accounts compilation. The National Implementing Agency should organize and implement the national program such that it addresses statistical capacity building. Its key tasks are as follows:

- Identify a National Coordinator (and an Alternate National Coordinator, in lieu of the absence of the National Coordinator) to be the focal point for communications and liaising with ADB on technical and administrative concerns of the project.;
- Participate in trainings and regional meetings including data review workshops, and technical discussions;
- Submit detailed country work plan and composition of national SUT/IOT Team;
- Provide ADB soft copies of the IOTs and SUTs, for all years available at the most detailed level possible, as deemed appropriate;
- Subject to economy-specific data confidentiality requirements, provide ADB soft copies of disaggregated census and/or survey data used for compiling benchmark and updated national and international SUTs for review and data validation purposes;
- Provide ADB complete sets of Gross Output, Intermediate Consumption and Final Demand matrices for both market and non-market output for the compilation of SUTs for data review and validation purposes;
- Prepare the list of economy-specific data sources and methodology for compiling and/or updating SUTs;
- Supplement survey data with data from administrative sources and proxy indicators for the construction of SUTs;
- Ensure timely submission of deliverables of the R-CDTA in accordance with agreed National and Regional Workplans;
- Provide insights in resolving any queries arising from data analysis by the ADB;
- Document issues encountered and steps taken to resolve them and/or agreements during the compilation of the SUTs;
- Organize, manage, and implement country-level activities under the R-CDTA;
- Prepare background papers on construction of SUTs; and
- Liquidate funds received from ADB, if any, together with supporting documentation such as invoices, receipts and other documents acceptable to ADB to substantiate expenditures made for the activities of the R-CDTA. Unutilized funds shall be refunded to ADB in the original currency of payment within 30 days of the completion of the R-CDTA activity.

附錄三、我國簡報




Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

National Accounts Compilation: TAIWAN (Taipei)


Yi-Hua Ou
DGBAS
Project Inception Meeting
ADB Headquarters, Manila, Philippines
8-9 April 2015

The views expressed in this document do not necessarily reflect the views and policies of the ADB or its Board of Governors or the government they represent.



Presentation Outline


- Background
- Compilation Methodology
- Status of SNA Compliance
- Way Forward



Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Background (1)


- **Scope and Coverage**
 - The geographic coverage:
The whole nationwide territory



Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Background (2)


- **Basic data sources**
 - Economic Census (every five years)
 - Production or Sales Surveys (monthly/ quarterly/ annual)
 - Financial Statements of Corporations
 - The Central and Local Government’s Final Accounts
 - Survey of Family Income and Expenditure
 - Balance of Payments
 - Price Indices



Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Background (3)

- **Levels of Disaggregation and Classification Used**
 - Economic activities: Based on the Standard Industrial Classification System of Republic of China (a derivative of the ISIC, Rev.4)
 - Final Consumption Expenditure of Households: COICOP
 - Government Final Consumption Expenditure: COFOG




Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Compilation Methodology

- **Types of Approach on GDP compilation**

Approach	Periodicity	Value
Production(P)	Quarterly, Annual	Nominal, Real
Expenditure(E)	Quarterly, Annual	Nominal, Real
Income(I)	Annual	Nominal

- **Types of Input-Output Accounts**
 - C x C: Benchmark years(2011, 2006, 2001, 1996,...)
 - C x I: Annual(2006~)




Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Status of SNA Compliance (1)

- **Consider three dimensions :**
 - The Minimum Requirement Data Set (MRDS)


Num. in NAQ	MRDS	Annual	Quarterly
1.1	Expenditures of the GDP, current prices	V	V
1.2	Expenditures of the GDP, chained dollars	V	V
2.1	Value added and GDP by industry , current prices	V	V
2.2	Value added and GDP by industry, chained dollars	V	V
2.3	Value added components by industry, current prices	V	
	Employment by industry		
1.3/ 4.1	Accounts for the total economy (until net lending)	V	
4.2	Rest of the World Accounts (until net lending)	V	



Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Status of SNA Compliance (2)

- **Compliance with the 2008 concepts**
 - Incorporated to our GDP since 2014 Nov.
 - Capitalization of R&D expenditure
 - Social Security Funds are classified into the government sector
 - The improved method to estimate the output of insurance services, and the modified treatment of reinsurance.



Supply and Use Tables
R-CDTA 8838: Updating and Constructing the Supply and Use Tables for Selected Developing Member Economies

Status of SNA Compliance (3)

– Data quality:

- Quarterly estimates for GDP(P) and GDP(E) are cross checked
- Advance estimates are released about one month after the end of the reference quarter
- Preliminary estimates are released about 7 to 8 weeks after the end of the reference quarter
- Annual Revision, Comprehensive Revision are also released
- These estimates, except advance estimates, are discussed and examined by the National Accounts Statistics Evaluation Committee before they are released.



Way Forward

- **Comprehensive Revision of GDP by industry for 1981~2006**
 - To be Released in 2H of 2015
- **Integration of Annual IO (Cxl) with GDP based on the 2008 SNA**



附錄四、各國簡報 Q & A

Economy Issues on the Status of the System of National Accounts

Economy	Issue	Clarification/Agreement
BHU	Given the <i>Background</i> in the presentation of Bhutan, Ms. Girard (UN ESCAP) inquired on the timeline for adopting the new classification to be used since at the moment, they are still using ISIC rev. 3.1 . On the <i>Compilation Methodology</i> , she also inquired about the magnitude of statistical discrepancy between the production and expenditure approach of GDP.	In terms of statistical discrepancy, Mr. Laendup (NSB, Bhutan) informed the group that it ranges to about 3-5 % of the GDP since they have stronger estimates on the production side. On the adoption of the new industry classification, he informed that through the Statistical Business Register project of ADB for which they will use ISIC rev. 4 to classify industries, they would be able to start adopting the same classification with national accounts compilation by 2016.
BHU	On the <i>Status of 1993 SNA Compliance</i> , Mr. Nyasalu (UN SIAP) observed that Bhutan has included the consumption of fixed capital in the national accounts. From his experience, this is one of the toughest concept to estimate and asked if Bhutan can share this experience to the group.	As a standard practice, Mr. Laendup (NSB, Bhutan) mentioned that they use a general rule of 5% of total consumption to estimate the consumption of fixed capital.
BHU	Mr. Ahmed (BBS, Bangladesh) inquired on how Bhutan estimates the total consumption and its main data source.	Mr. Laendup (NSB, Bhutan) clarified that the base line for estimating total consumption is the household expenditure survey data.
BRU	Mr. Suryadiningrat (BPS, Indonesia) inquired the level of impact in terms of percentage when the 2008 SNA was implemented in the overall revision of GDP estimates of Brunei Darussalam.	Ms. Yahya (JPKE, Brunei Darussalam) noted that the 10.8% increase in the level of GDP was a combined effect of implementation of the new base year, new data sources, improved estimation methodology, adoption of new classification and implementation of the 2008 SNA to the extent possible.
BRU	Ms. Shahuda (NBS, Maldives) noted that JPKE has plans of revising the backward series of national accounts estimates and is interested to know until what year this will be done.	Ms. Yahya (JPKE, Brunei Darussalam) informed the group that during the 2000 rebasing of the national accounts, the series was revised until 1985. The same will be done in this round of rebasing and revisions will be backtracked until 1985.

Economy	Issue	Clarification/Agreement
BRU	Mr. Ahmed (BBS, Bangladesh) noted that JPKE has implemented the 2008 SNA when the 2010 rebasing of national accounts was done. He is interested to know if the 2008 SNA was fully implemented.	According to Ms. Yahya (JPKE, Brunei Darussalam), not all of the 2008 SNA recommendations was implemented, but only those that are feasible and relevant to Brunei Darussalam.
BRU	Mr. Nyasalu (UN SIAP) would like to know the average level of compliance for the quarterly business survey conducted by JPKE since this is one of the issues mentioned in the presentation.	Ms. Yahya (JPKE, Brunei Darussalam) clarified that JPKE's quarterly business survey covers medium and large companies and by end of the cut off period, an average of 50-60% response rate is observed which will be used in the preliminary estimates. Estimates will then be revised incorporating all the responses after the cut off date.
BRU	Ms. Shahuda (NBS, Maldives) inquired on JPKE's Employment Satellite Account - how this is compiled, the different data that were used and the frequency of compilation.	Ms. Yahya (JPKE, Brunei Darussalam) informed the group that the Employment Satellite Account (ESA) was only done after the compilation of Supply and Use Tables and Input Output Tables, making only a benchmark ESA for 2011 as of the moment. Furthermore, she also informed the group that they have a very comprehensive data available for 2010-2011 citing availability of Income and Expenditures Survey, Population and Housing Census and Economic Census. These were used to come up with the ESA. She also shared that last year (2014), they started an Annual Labor Force Survey with assistance from the International Labor Organization which hopefully they will use to update the ESA.
BRU	Mr. Chanthasombath (LSB, Lao PDR) noted that JPKE allocates FISIM by industry and is interested to know how this is done.	Ms. Yahya (JPKE, Brunei Darussalam) briefly shared that FISIM is allocated by industry through the monthly data from the Annual Report of Loans provided to different industries by Monetary Authority of Brunei Darussalam.

Economy	Issue	Clarification/Agreement
BRU	Since Sri Lanka is also about to release its revised-rebased estimates, Mr. Satharasinghe would like to learn from JPKE's experience on how they handled government and the user community reactions of the revised GDP estimates.	Ms. Yahya (JPKE, Brunei Darussalam) was pleased to note that they are very fortunate that the main stakeholder which is the Planning Department, also under the Department of Economic Planning and Development, is involved and fully informed in the revision process. For the other stakeholders, they conducted a national training, various meetings and consultations after releasing the new set of estimates to explain the difference in GDP, including its presentation. The major data sources, however, were informed and educated before the revision to seek their cooperation.
CAM	On the <i>Background</i> of the presentation of Cambodia, Ms. Girard (UN ESCAP) noted the adjustments made on unrecorded activities of GDP. For the benefit of the group, she would like to know the data and method used on this.	Mr. Vanndy (NIS, Cambodia) mentioned that they are getting estimates from a quarterly survey conducted by Central Bank on tourist expenditures to adjust unrecorded activities.
CAM	In the attempt to move from the 1993 SNA to 2008 SNA, Mr. Chanthasombath (LSB, Lao PDR) inquired on how Cambodia plans to collect military equipment data since they also face the same challenge.	Mr. Vanndy (NIS, Cambodia) shared that this concept is really a challenge for them. However, they are planning to negotiate with the Ministry of Defense if they are willing to share data for statistical purposes only. They recognize that different country have different law and policy with regards to sharing of information. Currently NIS is coordinating with the line ministries through a sub-decree signed by the Prime Minister to obtain official statistics data. They are hoping to be able to gather statistical data through this sub-decree.
CAM	On research and development, Mr. Ahmed (BBS, Bangladesh) asked how data was collected by NIS.	Through the Science & Technology Plan 2015-2020 supported by the Korean Development Project, Mr. Vanndy (NIS, Cambodia) explained that a survey was conducted to collect R&D information.

Economy	Issue	Clarification/Agreement
CAM	Ms. Emalia (UN Secretariat) inquired on the number of staff working at the National Accounts Department of NIS since she has noted that one of the challenges mentioned by the agency is human resource capacity.	According to Mr. Vanndy (NIS, Cambodia), 12 staff work at the National Accounts Department, but only 3 compile the estimates. For SUT and IOT, only 1 staff is knowledgeable. Thus, capacity building is needed to expand the number of staff who will be working for the SUT project.
CAM	Ms. Shahuda (NBS, Maldives) inquired if the data quality assessment framework being used by NIS is developed internally or is subscribed to IMF's DQAF.	Mr. Vanndy (NIS, Cambodia) confirmed that they use and follow the guidelines of IMF's DQAF.
HKG	It also interests Mr. Nyasalu (UN SIAP) whether Hong Kong, China has elements of outsourced manufacturing outside the borders, if these are incorporated in the estimates of national accounts.	According to Ms. Ma (CSD, Hong Kong, China), many of the manufacturing companies were moved to People's Republic of China and manufacturing in Hong Kong, China is only about 2-3%. Since these manufacturing companies have moved out of Hong Kong, China they are no longer within the production boundaries and hence, not included in Hong Kong, China's GDP.
HKG	Mr. Vanndy (NIS, Cambodia) noted that a number of 2008 SNA recommendations have been implemented by Hong Kong, China. He would like to know how the goods for processing and merchanting were estimated and the data sources that were used to come up with these estimates. He is also interested to know if there were challenges that Hong Kong, China have experienced in collecting these information.	The data source for merchanting services is from the Annual Survey of Imports and Exports of Services and the Quarterly Survey of Service Industries. For goods for processing a Trade Survey is conducted. In this case, they are processing trade declarations on a monthly basis since the same department compiles the trade-in goods. Ms. Ma and Mr. Wang clarified that to be able to implement the recommendations of the 2008 SNA, new surveys need to be conducted. For instance the Survey on Innovation Activities was conducted to collect data for research and development expenditures. The challenge is handling and balancing the reporting burden from survey respondents since a number of details need to be reported vis-a-vis the requirements of the 2008 SNA

Economy	Issue	Clarification/Agreement
HKG	Mr. Boupha noted from CSD's presentation that illegal activities are not included in the GDP estimates and is interested to know how these are differentiated from informal sector. He is also interested to know how CSD is able to track the flow of goods to trading partners and how they are able to reconcile figures due to differences in recording.	Ms. Ma (CSD, Hong Kong, China) clarified that informal activities in Hong Kong, China is very small and only refer to household activities such as home study tutorial (private tutors), and these are captured in their household survey. With regards to trade recording discrepancies, Mr. Wang explained that an economy should study not only the trading partners but also the trading activities that it is into and bring in the numbers from those economies when they want to reconcile the figures and the flow of goods.
INO	Mr. Cheema (PBS, Pakistan) inquired on the possibility of Indonesia providing a brief on the guidelines and the use of the SUT software from the Australia Bureau of Statistics (ABS) since this will benefit everyone.	BPS was very thankful for the technical assistance provided by ABS. Mr. Suryadiningrat (BPS, Indonesia) informed the group that ABS developed an Excel-based SUT and since BPS has the manpower and capacity, they were able to transform this into a Javascript system that works on local area network (LAN) or even WIFI. He further noted that they are willing to demonstrate the software on a proper forum, including its manual.
INO	Mr. Boupha (LSB, Lao PDR) inquired on the funding received by BPS to be able to proceed with the surveys and census.	Mr. Suryadiningrat (BPS, Indonesia) informed that funds are provided by the government to conduct census and surveys, although they have bilateral agreements with other agencies to support data needs.
INO	Mr. Vanndy (NIS, Cambodia) inquired if apart from the SUT software, BPS also has special software for the compilation of other national accounts estimates.	Mr. Suryadiningrat (BPS, Indonesia) mentioned that although their SUT uses special software, GDP on the other hand is still on excel. However, they have plans in the future to develop a web-based system of estimating the GDP.
LAO	In the presentation made by DCS, Mr. Chanthasombath (LSB, Lao PDR) noted that DCS already estimates the Informal sector. He is interested to know how this was done in DCS since LSB is having difficulty in capturing the informal sector.	Mr. Satharasinghe (DCS, Sri Lanka) explained that they too had difficulty in valuing the informal sector. However, they adopted the residual employment approach using the Labor Force Survey (LFS) and the results of the establishment surveys to represent the <i>Informal</i> employment while using the same value added from the formal sector as proxy indicator for the value added of informal sector.

Economy	Issue	Clarification/Agreement
MAL	Mr. Satharasinghe (DCS, Sri Lanka) inquired DOS Malaysia on their data source for research and development (R&D).	Mr. Talib (DOS, Malaysia) mentioned that the Economic Census conducted every five years has the items on R&D. He also mentioned that in between years, Annual Surveys provide information on R&D as well.
MAL	Mr. Nyasalu (UN SIAP) observed that it seemed easy for DOS Malaysia to estimate military expenditures and inquired on how they are able to obtain its data.	Ms. Jamal (DOS, Malaysia) informed that they are able to get data on military expenditures through the Government Accounts.
MON	Mr. Boupha (LSB, Lao PDR) inquired on how Mongolia was able to move from a Russian framework to the SNA and who funded this. He also inquired on how Mongolia was able to backcast the national accounts series given the difference in framework.	Ms. Badamtsetseg informed the group that the Parliament through the statistics law approves the funding for statistical activities. She also mentioned that international organizations and other advanced statistical organizations also provide funds to conduct surveys and data gathering. On backcasting, she mentioned that this remains a challenge although they have SUT, they are only able to use this to back cast for the past 5 years. They are still in consultation on how to go about the revision of the longer past series.
NEP	Mr. Boupha (LSB, Lao PDR) inquired the reason for conducting an economic census in the <i>Way Forward</i> of the presentation of Nepal when a number of surveys are being conducted already. He would also like to know if this would be a separate or a parallel census to replace the existing ones.	Mr. Bhandari (CBS, Nepal) clarified that as of the moment, only small-scale manufacturing survey done every 10 years and large-scale survey conducted every 5 years are being done. There is no economic census yet since there is no existing frame as of the moment, even business register is not yet in place.
NEP	Mr. Boupha (LSB, Lao PDR) inquired on why CBS compiles only the constant price estimates.	Mr. Bhandari (CBS, Nepal) informed the group that due to data limitation, CBS can only estimate quarterly GDP beginning 2008-09. Adhoc activities are currently being done to estimate quarterly GDP at current prices.

Economy	Issue	Clarification/Agreement
SRI	On the <i>Way Forward</i> , Mr. Nyasalu (UN SIAP) inquired on the data requirements needed in the compilation of the national accounts for Sri Lanka and asked if administrative data particularly the tax data was explored. He also inquired on the status of data quality as a requirement to the SNA compliance.	Mr. Satharasinghe (DCS, Sri Lanka) explained that they are quite busy at the moment in moving the base year from 2002 to 2010. He informed the group that DCS has explored other avenues, apart from the census and surveys and have actually signed a Memorandum of Understanding (MOU) with the Department of Inland Revenue and use tax data to bridge data gaps in the compilation of national accounts. In terms of data quality, he informed the group that it is very early to comment on this topic since they are still on the processing stage and have yet to reach the analysis stage therefore at this time, problems have not been encountered yet.
SRI	Ms. Hassan (NBS, Maldives) inquired if DCS Sri Lanka is able to obtain individual record from the Tax Department.	According to the MOU signed with the Department of Inland Revenue, Mr. Satharasinghe informed the group that they are allowed to look at individual data. However, he mentioned that as of the moment, they don't see the reason for using the individual data. Instead, they have only structured the data requirements (aggregated results) from the Inland Revenue and this is sent to them on a quarterly basis.
TAP	Mr. Suryadiningrat (BPS, Indonesia) also inquired with Taipei, China on how the capitalization of research and development (R&D) was estimated and its impact on the revised GDP.	Ms. Wang (DGBAS, Taipei, China) explained that the inclusion of the capitalization of R&D expenditures is 3% increase in GDP which came from the Annual National Technology Survey following the classification of the Frascati Manual of OECD.
TAP	Mr. Chanthasombath (LSB, Lao PDR) is interested to know how DGBAS obtain the real price estimates of Expenditures and how the fixed capital formation is deflated.	Ms. Wang (DGBAS, Taipei, China) explained that they use chain index from CPI and other service price indices to get real price estimates of expenditures and that fixed capital formation is deflated using construction price index and other machinery and transportation price indices.
TAP	Ms. Shahuda (NBS, Maldives) inquired on how the annual financial statements of corporations and the different surveys in Taipei, China are reconciled and used in the national accounts estimates.	Ms. Wang (DGBAS, Taipei, China) clarified that financial statements of corporations from listed companies are used only as supplemental data to check their main data sources which are administrative and surveys.

Economy	Issue	Clarification/Agreement
THA	Mr. Boupfa inquired on the data sources used by NESDB for the compilation of the national accounts estimates since this is not included in the presentation.	Mr. Surapol (NESDB, Thailand) mentioned that there is an existing socio-economic survey for household expenditure being conducted by the National Statistics Office. He also mentioned that their office conducts input survey for SUT/IOT compilation.
THA	Mr. Laendup (NSB, Bhutan) inquired data source and methodology for decomposing estimates into different sectors as reflected in the balance sheet.	Mr. Surapol (NESDB, Thailand) clarified that financial corporation estimates are from current account and balance sheets of private companies from Bank of Thailand due to its legal mandate; non-financial corporation is difficult to estimate, usually the option is to make it as residual estimates.