

EAROPH Australia



## **Management of Public Assets - A Systemic Framework**

Project Proposal

# Abbreviations

ADB	Asian Development Bank
AFA	ASEAN Federation of Accountants
APIGAM	Asia Pacific Institute of Good Asset Management
ASEAN	Association of Southeast Asian Nations
ASOSAI	Asian Organization of Supreme Audit Institutions
AusAID	Australian Agency for International Development
CAPA	Confederation of Asian and Pacific Accountants
CLGF	Commonwealth Local Government Forum
DMC	Developing Member Countries
EAROPH	Eastern Regional Organisation for Planning and Human Settlements
ESCAP	The United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
ExCo	Executive Committee
FOIA	Freedom of Information Act
GDP	Gross Domestic Product
GFMAM	Global Forum on Maintenance and Asset Management
GPN	Global Planners Network
GPS	Global positioning system
GRI	Global Reporting Initiative
HDR	United Nations Development Program's Human Development Report
ICOM	International Council of Museums
ICT	Information and Communication Technology
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IPSAS	International Public Sector Accounting Standards
ISO	International Organization for Standardization
ISOCARP	International Society for City and Regional Planners

IULA	International Union of Local Authorities
JICA	Japanese International Cooperation Agency
MA	Millennium Eco-System Assessment
MDG	Millennium Development Goals
NGO	Non-Government Organisation
OECD	Organisation for Economic and Cultural Development
PASAI	Pacific Association of Supreme Audit Institutions
PEFA	Public Expenditure and Financial Accountability
PMI	Project Management Institute
PWC	Price Waterhouse Coopers
SAM	Systemic Asset Management
SNA	System of National Accounts
UK	United Kingdom of England, Scotland, Wales and Northern Ireland
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESA	United Nations Department of Economic and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNHDR	United Nations Development Program's Human Development Report
UNSNA	United Nations System of National Accounts
UOA	Union of Architects
USAID	United States Agency for International Development
WWF	World Wildlife Fund

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# 1 Executive Summary

The types of assets that governments are expected to manage has grown in the last thirty years. Public policies, systems and procedures, methodologies and tools have not yet kept up-to-date with expectations. Public servants need guidance that accords with already accepted international frameworks if they are to meet these expectations.

The full cost of the Asia Pacific's public built assets over their life-time exceeds **\$US640,000 trillion**. These are crucial to all public services.

Governments are adapting the management of public assets to make use of the new information and communications technology (ICT) and incorporating it in their public services to better meet rising public expectations. These expectations have grown with the introduction of new generation ICT and with the need for governments to address environmental degradation and its causes.

Governments throughout the EAROPH region prepare reports on public assets that are tabled in legislatures. The United Nations and other international bodies regularly report on public assets, and **develop new methodologies** to assist national governments adapt to changing expectations. National governments and professional bodies are also developing new approaches to managing public assets.

Their main challenge is to ensure that assets are **ASSETS** and not disguised **LIABILITIES**.

While developed countries have the capacity to adapt to changing expectations, developing countries cannot adapt so easily.

**EAROPH** is a regional body with links to all aspects of the management of human settlements and planning throughout the Asia-Pacific. It has a long tradition of research and development of asset management methodologies that meet the needs of EAROPH member countries.

In September 2010 the Honorary President of EAROPH Mr. K. C. Leong decided to develop a conceptual framework within which The Asia Pacific Institute of Good Asset Management (APIGAM) would deliver training in asset management.

At the November 2010 EAROPH Congress in Adelaide, it was proposed that a methodology be developed to assist nations to identify the full costs of their public asset stock over the life of the assets. These costs include the economic, social, cultural and environmental costs during the life of the assets. They result not only from government decisions but also from private decisions made in accordance with current legislation.

At the Adelaide Congress, EAROPH Australia's President proposed that a methodology was needed to assist nations to identify the long-term costs of their asset stock. These costs include economic, social, cultural and environmental costs of government decisions and private decisions made within a legislated framework..

**This paper contains the rationale for and design of a project that will assist governments to systemically manage the stock of public assets.**

Through participating in this project, EAROPH members can contribute to developing a regional framework for the integrated management of all public assets.

This document records the background and key issues in the management of public assets. It discusses the barriers to integrated reporting and management of public assets and reports existing endeavours by a range of international and professional bodies.

It has been **prepared by a team of EAROPH members**: a public sector asset management specialist, two engineers, a risk management specialist and a community engagement specialist. **The President of the Asia Pacific Institute of Good Asset Management (APIGAM) is the sponsor of the project.**

The preparation of the conceptual framework has begun with the President APIGAM writing a book that addresses the systemic management of built assets.

The proposed **timelines** for the three phase of the project are:

1. Nov 2011 EAROPH endorsement of project
2. Dec 2011 EAROPH National chapters nominate their level of engagement with the project.
3. Jan 2012 Formal approaches to donors and governments for funding. MOUs signed with partner organisations and governments.
4. Mar 2012 Project team nominated
5. Apr 2012 KC's book published.
6. May 2012 Asset Management Wiki design signed off
7. June 2012 Discussion paper on public assets in EAROPH region drafted.
8. July 2012 Workshops on management of public assets held in five countries.
9. Aug 2012 Findings of workshops documented
10. Sept 2012 Asset Management Wiki populated with known tools
11. Oct 2012 Phase 1 Report to EAROPH Council and Congress.
12. Oct 2013 Phase 2 Report to EAROPH Regional Workshop and ExCo

13. Oct 2014      Phase 3 Report to EAROPH Council and Congress.

A draft **logical framework** to guide the project team is included. So too is a rough budget to use to seek funding from donors and EAROPH member governments. This project proposal is **submitted to the executive Committee of EAROPH for its approval.**

**RECOMMENDATIONS:**

1. **The Executive Committee approves the proposed project “Management of Public Assets: A Systemic Framework”.**
2. **The Secretary General is authorised to obtain funding for, and oversee the operation of, the project and to report back to the 2012 Council meeting in Korea.**
3. **The project governance be established as per the project proposal.**
4. **The project team reports through the Project Steering Committee to the Secretary General.**

## 2 Introduction

### 2.1 Purpose of Document

This document explains the rationale for a project to provide a framework for the systemic management of public assets to governments of the EAROPH region. It records the scope and the outputs of the project. The document is to be presented to the Executive Committee members for their consideration prior to the meeting in Brunei. This meeting will be asked to approve that the project be delivered under the auspices of EAROPH.

### 2.2 Key Issues

The key issues are:

- The initial cost of the stock of public assets is worth in excess of \$32,000 trillion. Given the whole-of-asset-life costs are 17 to 20 times the capital costs<sup>1</sup>, the public's investment in public assets in the Asia Pacific is large and probably exceeds \$US640,000.
- There is a need for a framework within which governments can manage this large stock of public assets.
- Decisions to acquire or create and fund infrastructure projects and other public assets are being made without the benefit of the full costs of the projects over their lifetime. Costs include the operation, maintenance, upgrading and renewal of infrastructure.
- A growing population calls for more infrastructure. Yet, infrastructure affects natural assets, and the full impact of infrastructure for a growing population on eco-system services together with their impact on human and social capital must be closely managed.
- There has been a tendency for governments to seek funding for the construction of infrastructure, on the assumption that the economic activities, including jobs generated by the projects, will lead to higher tax revenue and hence fund the ability of governments to operate and maintain the resulting public assets.

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<sup>1</sup> KC Leong 2004. The Essence of Asset Management – A Guide, UNDP, EAROPH, APIGAM, p51.

- Capital budgets are given political support before the whole-of-life costs are calculated. Indeed, some projects are “talked up” so that investors’ interests are sacrificed to the interests of those with most to gain in the short term. Others are built, not to last or to minimise the maintenance costs, but to minimise the construction costs.
- Having said that, general accountability mechanisms, such as legislative approval, are not yet operating to prevent investments in projects that exceed the nation’s ability to pay.

### **2.3 The Need for Action**

Infrastructure can lead to a high call on the recurrent budget of governments, where they self fund, or on commercial operators who build and operate infrastructure.

Without a universally accepted methodology for considering all the costs of current and proposed projects, governments can be unpleasantly surprised by the implications of some capital projects.

With the large number of groups and people interested in sustainable development, there is a need for a methodology that enables all interests – short, medium and long-term - to be considered and balanced so that the governments and legislatures can be well briefed on projects for which approval is sought.

### **2.4 Proposed Strategy**

The main challenge is to ensure that assets are ASSETS and not disguised LIABILITIES.

With the introduction of accrual accounting and the subsequent preparation of statements of financial position including assets and liabilities, governments have begun to register and value public assets. This tool enables them to consider not only the annual cost of operating and maintaining assets, but the government’s investment in the capacity of government to deliver services.

The need to manage more than just financial assets has required governments to develop tools that extend beyond merely recording, valuing and reporting the asset stock of each government entity.

The Public Expenditure and Financial Accountability (PEFA) programme now enables governments to benchmark their financial management over time and against that of similar countries, and in so doing, to concentrate on specific areas where benefits can be achieved. While PEFA does not yet include an assessment of a government’s public assets, the methodology can be extended to include the statement of financial position and its assets and liabilities.

State of the Environment Reports are being prepared. International bodies are recording natural assets held across borders: forests, rivers, oceans.

The OECD is developing a methodology to measure human capital. The World Bank has been working on developing a conceptual framework for social capital. This document draws on this already large body of work to propose a set of guidelines for governments to apply in managing public assets. The guidelines will provide confidence to governments and their legislatures that decisions to add to the stock of assets are being made with reference to the entire stock of public assets, in the short-term, medium-term and the long-term.

It is well known that skilled staff are required to manage the stock of assets. By treating human resources as another asset, governments can measure the cost in developing the skills needed to operate and maintain infrastructure, natural assets and social capital at the same time they consider the proposed project's immediate economic benefits.

## **2.5 Implementation**

The project is designed to be implemented over a three year cycle:

- November 2011 to October 2012 - funding, staffing, detailed design and detailed project proposal. Conceptual framework published, regional workshops held. Discussion papers distributed. Wiki prepared.
- November 2012 to October 2013 – Draft criteria against which to assess systemic management of public assets tested and published.
- November 2013 to October 2014 – Assessment tools, testing and publication of the final guidelines.

## **2.6 Outcomes Sought**

If infrastructure projects are to contribute to sustainable development, they should be assessed against their full cost rather than against marginal financial costs.

The stock of public assets can be actively managed, with all flows to and from the stock (not just financial flows) being monitored.

Governments will have confidence that their decisions will benefit not only those with a short-term interest in the project, but all its citizens, its neighbours and future generations as well.

There will be sustainable development of the social, built and natural environment.

These outcomes will be sought within the larger context of humans adding to the vitality of the planet, its biodiversity and its resources.

## 2.7 Overview

Section 3 describes public assets: it categorizes them into five classes, identifies their role in the well-being of human settlements and acknowledges their inter-relationships; considers the management of public assets, the governance and the need for their systemic management.

Section 4 identifies the barriers to the systemic management and reporting of public assets to be: poor governance, inadequate human capacity, competing priorities and the lack of reliable data, all of which make it difficult for governments to achieve the outcomes they seek.

Section 5 identifies the existing endeavours of institutions, agencies and professions to address the challenges facing governments in managing public assets. It lists the types of resources available to governments (methodologies, practice manuals and publications, ICT systems, emerging policy and legislation, education and training, foreign aid projects and the work of the UN and other international agencies). It names the most recent international standard and professional bodies' responses. It outlines the systemic management framework and provides a brief history of the management of public assets.

Section 6 provides details of the proposed project: an overview, outcome, scope, beneficiaries, outputs and the project logical framework, including the inputs. Detailed logical frameworks of each output are in appendix C.

Section 7 identifies the project risks and proposes these be managed through APIGAM championing ways governments can systemically manage public assets.

Section 8 identifies the practical steps to establishing the project to pursue its strategies.

Section 9 records the key stakeholders and project governance and oversight, participating jurisdictions and independent quality assurance processes.

Section 10 contains the proposed project timetable.

Appendix A lists the current internationally accepted definitions of public assets.

Appendix B provides an example of the proposed annotated bibliography to be prepared.

Appendix C contains the detailed logical frameworks in pursuing each of the strategies.

## 3 Background and Issues

This section describes public assets: it categorizes them into five classes, identifies their role in the well-being of human settlements and acknowledges their inter-relationships; considers the management of public assets, the governance and the need for their systemic management.

### 3.1 Public Assets

Governments have traditionally managed borders, land, trade and monetary assets and kept detailed records on these. In addition governments also kept records on moveable assets and individual items with significant value.

With the introduction of information and communication technology (ICT) people expect there will be greater transparency and accountability of governments' management of all public assets. The way governments manage public assets is changing to not only capture the benefits of ICT but also to continue to provide the public services required by the population.

Governments manage a wide range of skilled people in delivering public services. For example, the World Bank has been developing a land governance assessment framework<sup>2</sup> to help governments address the challenges they face in managing land. Land is a technically complex asset to manage as it requires the skills of "many disciplines such as law, information technology, geodesy, geomatics and surveying, economics, urban planning, anthropology environmental, social, and political science"<sup>3</sup>.

This technical complexity of public assets exists in a context in which there is a need to make trade-offs; there is political sensitivity and, in many cases, institutional fragmentation<sup>4</sup>.

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<sup>2</sup> <http://www.landequity.com.au/publications/Land%20Governance%20-%20text%20for%20conceptual%20framework%20260508.pdf> and <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

<sup>3</sup> <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

<sup>4</sup> <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

Advances in ICT mean governments can now manage public assets with similar rigour to that with which they apply to their management of finances. But merely tracking and reporting services is insufficient. Governments must also deliver the serviced needed by the population where they live. This requires careful management of all public assets.

With the availability of computer technology in the last two decades of the twentieth century, governments began keeping detailed computerised records on land titles and, within government itself, on plant and equipment and buildings controlled by public entities – their operational assets. While governments managed records on land in private hands, it is only recently that most governments began to keep records on land controlled by various level of government. By the turn of the century, technology had developed sufficiently for governments to build systems to record and manage infrastructure assets (for example, the road network<sup>5</sup>).

Now governments are expected to actively manage not only moveable and attractive items, plant and equipment, buildings, publicly owned land and major infrastructure, but also human capital<sup>6</sup>, the environment<sup>7</sup> and social capital<sup>8</sup> in ways that calls for reliable information.

This brings with it the challenge to governments of harnessing the skills and knowledge of an array of professionals who have been educated differently, use language differently, think differently and value public assets differently.

Governments are expected by the legislature to conduct annual stocktakes, prepare financial statements that include assets and liabilities, state of the environment reports, and other reports to assist in the nation's sustainable development.

They manage a wide range of skilled people in delivering public services. For example, the World Bank has been developing a land governance assessment framework<sup>9</sup> to help governments address the challenges they face in managing land. Land is a technically complex asset to manage as it requires the skills of “many disciplines such as law, information technology, geodesy, geomatics and surveying, economics, urban planning, anthropology environmental, social, and political science”<sup>10</sup>.

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<sup>5</sup> [www.internationaltransportforum.org/Pub/pdf/01AssetE.pdf](http://www.internationaltransportforum.org/Pub/pdf/01AssetE.pdf)

<sup>6</sup> [www.adb.org/documents/working-papers/2010/economics-wp225.pdf](http://www.adb.org/documents/working-papers/2010/economics-wp225.pdf)

<sup>7</sup> [www.unep.org/Documents.Multiilingual/Default.asp?documentid=78&articleid=1163](http://www.unep.org/Documents/Multiilingual/Default.asp?documentid=78&articleid=1163)

<sup>8</sup> [www.oecd.org/dataoecd/5/13/1824913.pdf](http://www.oecd.org/dataoecd/5/13/1824913.pdf)

<sup>9</sup> <http://www.landequity.com.au/publications/Land%20Governance%20-%20text%20for%20conceptual%20framework%202060508.pdf> and <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

<sup>10</sup> <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

This technical complexity of public assets exists in a context in which there is a need to make trade-offs; there is political sensitivity and, in many cases, institutional fragmentation<sup>11</sup>.

Advances in ICT mean governments can now keep detailed records on public assets with similar rigour to that with which they apply to their recording of finances. But merely tracking and reporting services is insufficient. Governments must also deliver the serviced needed by the population where they live. This requires careful management of all public assets.

The United Nations (UN) and other multilateral bodies are developing methodologies to assist governments prepare these reports and produce their own reports. The United Nations System of National Accounts (UNSNA), UN Development Programme's Human Development Report (UNHDR), Organization for Economic and Cultural Development (OECD)'s Environmental Outlook to 2030 and the OECD Human capital surveys are a few examples. The OECD is also working on a way to measure social capital<sup>12</sup>.

### 3.1.1 What are public assets?

*Do you count what can be counted, rather than what counts? (Einstein)*

Public assets are variously defined and reported. International definitions are included in Appendix A.

Public assets can usefully be divided into five categories:

- Financial assets such as monetary assets (currency reserves, deposits and in some countries stocks and bonds), other financial assets (receivables, inventories);
- Built assets:
  - Operating assets such as motor vehicles, office equipment, machinery, and buildings that departments control and use to achieve their objectives;
  - Infrastructure assets such as transport, telecommunications, energy, water and waste management that departments, government corporations and private firms manage on behalf of the government to deliver services.

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<sup>11</sup> <http://siteresources.worldbank.org/EXTARD/Resources/336681-1236436879081/5893311-1271205116054/SelodNewPaper.pdf>

<sup>12</sup> A draft paper was released in July, 2011 for comment.

- ;
- ▶ Natural capital in the form of land, natural resources (air, soil, forests, fisheries, waterways) and the ecosystem services it provides;
- ▶ Human capital as determined by the education and general well-being of a country's people; and
- ▶ Social capital is the complex web of social networks and institutions that shape our interactions<sup>13</sup>.

None of these classes of assets can be managed independently of the other classes. The following diagram illustrates the crucial importance of natural assets in a well-functioning community. Governments use many internationally accepted frameworks to monitor each of these assets. A description some of the ways these public assets are being measured follows.

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<sup>13</sup> See Appendix A for accepted definitions.



**Figure 1: Classes of Public Assets**

## Financial assets

Public financial assets are reported in accordance with the United Nations System of National Accounts (SNA), the Government Finance Statistics (GFS) and the International Public Sector Accounting Standards.

The SNA is used by each government to prepare a set of accounts (national accounts) to record the economic assets owned by all entities within a nation: public and private, voluntary and households<sup>14</sup>.

The public sector in the SNA is “the national, regional, and local governments plus institutional units controlled by government units”.

The national accounts presents (1) stocks of assets and liabilities in a balance sheet for the total domestic economy and its major sectors at the beginning and end of an accounting period and (2) the principal economic activities occurring within the accounting period in several flow accounts<sup>15</sup>. The UNSNA is designed to give a realistic and compact view of the economy that is suitable for policy and analytical use<sup>16</sup>. It defines an asset as:

*An asset is a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period of time. It is a means of carrying forward value from one accounting period to another. (SNA 2008 3.30)*

All assets recorded in national accounts are economic assets. They include both produced and non-produced assets of entities resident within each economy. The only assets included are those that can be represented by a monetary value.

Financial liabilities are not yet being included in the UNSNA. For our purposes, public assets are those controlled by public entities however owned. Control is exercised by government over most assets: land use, resource use, infrastructure, education and employment all being subject to legislated controls.

Ownership is another criterion that determines the inclusion of an asset in the national accounts. Institutional units are the users for which the national accounts are prepared. Therefore only those naturally occurring resources over which ownership rights have been established and are effectively enforced can qualify as economic assets and be recorded in the balance sheets (UNSNA 2008: 10.167). Consumer durables and human capital, as well as natural resources not owned are excluded (USNA 2008: 3.47).

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<sup>14</sup> *A liability is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor).* UNSNA 2008: 3.5.

<sup>15</sup> <http://unstats.un.org/unsd/nationalaccount/AEG/papers/m3Delineation.pdf>

<sup>16</sup> The UNSNA was most recently revised in 2008.

To illustrate the approach, farmed wildlife is considered a produced asset. Wildlife not providing a direct economic benefit to an entity is excluded from the balance sheet as are other natural resources, for example unmined mineral deposits, not providing immediate economic benefit.

The national accounts include assets owned by all entities, public and private, voluntary and households. Balancing these are economic liabilities<sup>17</sup>. The accounts are not yet a complete record of all liabilities of the public sector.

The Government Finance Statistics (GFS) is “designed to provide statistics that enable policymakers and analysts to study developments in the financial operations, financial position, and liquidity situation of the general government sector or the public sector in a consistent and systematic manner”<sup>18</sup>. The GFS uses SNA definitions. The GFS Balance Sheet reports financial and non-financial assets.

“The Balance Sheet for the general government or public sector is a statement of the stocks of financial and nonfinancial assets owned, the stock of claims of other units against the owners of those assets in the form of liabilities, and the sector’s net worth, equal to the total value of all assets less the total value of all liabilities”<sup>19</sup>.

All assets recorded in the GFS system are economic assets. It reports both financial and non-financial assets and includes a wider range of assets than normally owned by private organisations. It includes general purpose assets, infrastructure and heritage assets<sup>20</sup>.

The International Public Sector Accounting Standards (IPSAS) guide governments in preparing their financial statements. Some governments<sup>21</sup> are applying accrual accounting in preparing their national financial statements which include a statement of assets and liabilities. In addition to economic assets, these statements report on, plant and equipment, land, buildings and collections as well as intangible assets and infrastructure.

The Asian Development Bank (ADB) estimates that Asian countries have need for over \$4.7 trillion in infrastructure in the years 2006 to 2016: \$3.2 trillion for new capacity and \$1.6 trillion for replacing existing infrastructure<sup>22</sup>.

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<sup>17</sup> *A liability is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor).* UNSNA 2008: 3.5.  
<sup>18</sup> <http://www.imf.org/external/pubs/ft/gfs/manual/pdf/all.pdf> Para 1.7

<sup>19</sup> GFS para 1.14

<sup>20</sup> GFS para 7.10

<sup>21</sup> See The Financial Statements of the Government of New Zealand at [www.treasury.govt.nz](http://www.treasury.govt.nz)

<sup>22</sup> Menon, J. 2009, Regional Efforts to Create an Attractive Investment Climate, Presentation to Session III: Creating an Attractive Investment Climate in Southeast Asia, 2<sup>nd</sup> OECD-Southeast Asia Regional Forum, “Enhancing Competitiveness through Regional Integration” April 27-28, 2009, Bangkok Thailand. <http://www.oecd.org/dataoecd/29/35/42711974.pdf> Last accessed 4th September, 2011.

**“This great infrastructure boom will create winners and losers. Losers will squander infrastructure spending on corruption and ineptitude. Winners will create powerful new engines of economic growth for generations to come based on new energy, globally competitive health care and strong educations.” Gerritsen, 2009.**

Developing countries receive funds, not only to help construct infrastructure and to maintain natural assets, but also to build capacity through social infrastructure and services, economic infrastructure and services, production sectors and multisector / cross-cutting issues that include urban and rural development<sup>24</sup>.

#### Environmental Assets

State of the Environment reports are being prepared and report against environmental indicators designed to simplify, quantify and communicate complex environmental data, and in so doing, tell us about the state or quality of the environment<sup>25</sup>. The OECD provides leadership in the development of indicators to measure environmental performance<sup>26</sup>. The OECD Outlook for the year 2030<sup>27</sup> provides a one page overview of the environmental issues to be managed by its member countries. Below is the format used to convey the key issues.

<sup>23</sup> Gerritsen, E. J. 2009. White Paper: The Global Infrastructure Boom of 2009–2015. The Journal of Commerce Online, 19 May 2009. Available at: <http://www.joc.com/node/411513>.

<sup>24</sup> OECD, Overseas Development Aid by Sector [http://stats.oecd.org/Index.aspx?DatasetCode=ODA\\_SECTOR](http://stats.oecd.org/Index.aspx?DatasetCode=ODA_SECTOR)

<sup>25</sup> New Zealand Ministry for the Environment <http://www.mfe.govt.nz/environmental-reporting/about/tools-guidelines/indicators/> last accessed 4<sup>th</sup> September, 2011.

<sup>26</sup> OECD Environmental Indicators and Outlooks [http://www.oecd.org/topic/0,3373,en\\_2649\\_34283\\_1\\_1\\_1\\_37465.00.html](http://www.oecd.org/topic/0,3373,en_2649_34283_1_1_1_37465.00.html) last accessed 4<sup>th</sup> September, 2011.

<sup>27</sup> OECD Environmental Outlook to 2010 [http://www.oecd.org/document/20/0,3746,en\\_2649\\_37465\\_39676628\\_1\\_1\\_1\\_37465.00.html](http://www.oecd.org/document/20/0,3746,en_2649_37465_39676628_1_1_1_37465.00.html) last accessed 6<sup>th</sup> September 2011.

	 [Green Light]	 [Yellow Light]	 [Red Light]
Climate change		<ul style="list-style-type: none"> <li>Declining GHG emissions per unit of GDP</li> </ul>	<ul style="list-style-type: none"> <li>Global GHG emissions</li> <li>Increasing evidence of an already changing climate</li> </ul>
Biodiversity & renewable natural resources	<ul style="list-style-type: none"> <li>Forested area in OECD countries</li> </ul>	<ul style="list-style-type: none"> <li>Forest management</li> <li>Protected areas</li> </ul>	<ul style="list-style-type: none"> <li>Ecosystem quality</li> <li>Species loss</li> <li>Invasive alien species</li> <li>Tropical forests</li> <li>Illegal logging</li> <li>Ecosystem fragmentation</li> </ul>
Water	<ul style="list-style-type: none"> <li>Point-source water pollution in OECD countries (industry, municipalities)</li> </ul>	<ul style="list-style-type: none"> <li>Surface water quality and wastewater treatment</li> </ul>	<ul style="list-style-type: none"> <li>Water scarcity</li> <li>Groundwater quality</li> <li>Agricultural water use &amp; pollution</li> </ul>
Air quality	<ul style="list-style-type: none"> <li>OECD country SO<sub>2</sub> &amp; NO<sub>x</sub> emissions</li> </ul>	<ul style="list-style-type: none"> <li>PM &amp; ground-level ozone</li> <li>Road transport emissions</li> </ul>	<ul style="list-style-type: none"> <li>Urban air quality</li> </ul>
Waste & hazardous chemicals	<ul style="list-style-type: none"> <li>Waste management in OECD countries</li> <li>OECD country emissions of CFCs</li> </ul>	<ul style="list-style-type: none"> <li>Municipal waste generation</li> <li>Developing country emissions of CFCs</li> </ul>	<ul style="list-style-type: none"> <li>Hazardous waste management and transportation</li> <li>Waste management in developing countries</li> <li>Chemicals in the environment and in products</li> </ul>

KEY: **Green light** = environmental issues which are being well managed, or for which there have been significant improvements in management in recent years but for which countries should remain vigilant. **Yellow light** = environmental issues which remain a challenge but management is improving, or for which current state is uncertain, or which have been well managed in the past but are less so now. **Red light** = environmental issues which are not well managed, are in a bad or worsening state, and which require urgent attention. All trends are global, unless otherwise specified.

Figure 3: OECD Environmental Outlook to 2030

## Human Capital

The OECD too is providing leadership in the development of ways of measuring human capital<sup>28</sup>. Human capital is recognised as one of the assets that need to be preserved to achieve sustainable development, and as an investment in future jobs and earnings for those people who face the greatest risk of poverty and exclusion<sup>29</sup>.

The UNDP annually publishes the United Nations Human Development Report.<sup>30</sup> It is extending its methodology to better reflect the state of the world's human capital.

## Social Capital

Social capital refers to the norms and networks that enable collective action. It encompasses institutions, relationships and customs that shape the quality and quantity of a society's social interactions<sup>31</sup>. Much attention has been given to the development of social capital in post conflict states with civil society being recognised as a partner of governments and international agencies. Five key dimensions have been identified as useful proxies for social capital – groups and networks, trust, collective action, social inclusion and information & communication. The World Bank has developed two measurement tools to inform the bank's operations<sup>32</sup>. There is much conceptual work to be done to achieve an international report on the level of social capital in each country.

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<sup>28</sup> Human capital accounting [http://www.oecd.org/LongAbstract/0,3425,en\\_2649\\_392633294\\_33702586\\_119699\\_1\\_1\\_1,00.html](http://www.oecd.org/LongAbstract/0,3425,en_2649_392633294_33702586_119699_1_1_1,00.html) last accessed 4<sup>th</sup> September, 2011.

<sup>29</sup> Workshop on the Measurement of Human Capital, Turin 2008 [http://www.oecd.org/document/39/0,3746,en\\_2649\\_33715\\_41153767\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/39/0,3746,en_2649_33715_41153767_1_1_1_1,00.html) last accessed 4<sup>th</sup> September, 2011.

<sup>30</sup> See <http://www.beta.undp.org/undp/en/home/librarypage.html> for Human Development Reports.

<sup>31</sup> World Bank, Social Thematic Group, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTSOCIALCAPITAL/0,,contentMDK:20642703~menuPK:401023~pagePK:148956~piPK:216618~theSitePK:401015,00.html> last accessed 4<sup>th</sup> September, 2011.

<sup>32</sup> World Bank, Social Capital Measurement Tools, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTSOCIALCAPITAL/0,,contentMDK:20193049~menuPK:418220~pagePK:148956~piPK:216618~theSitePK:401015~isCURL:Y,00.html> last accessed 4<sup>th</sup> September, 2011.

## Steps towards Sustainable Development

If governments are to manage the sustainable development of their nations, they will need a way to identify, record, manage and report the stock of all public assets.

Many countries have a lot of work to do. The accounting firm PWC's United Kingdom (UK) office in reporting on the stock of the UK's public assets says: "As a nation, we are unclear on the level of investment needed in our public assets primarily because we do not actually know the value of much of our existing asset base or the cost of maintaining it<sup>33</sup>." The UK government is not alone. Much effort is being made to achieve "sustained compilation and reporting of national accounts and related source data by national, regional and international statistical systems".<sup>34</sup>

This project aims to assist governments to manage the sustainability of their public assets through developing tools and assessment criteria that capture and format data already collected to enable monitoring and reporting on the stock of public assets.

### 3.1.2 Public assets and their role in the well-being of human settlements

The purpose of assets, public and private, is to contribute to human well-being. All types of assets are valued because of the benefits they provide. Financial assets provide cash flow or the ability to acquire services. Built assets, including operating assets such as motor vehicles, office equipment, machinery and buildings enable services to be provided. Infrastructure assets such as transport, telecommunications, energy, water and waste management provide access to the means of acquiring and providing services. Natural capital in the form of land and natural resources and the ecosystems they provide are the most important for human well-being, providing for the ongoing sustenance of human life.

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<sup>33</sup> PWC, 2011, Flexing the Abs: Sustaining an affordable asset base for UK plc. See: <http://www.pwc.co.uk/eng/publications/flexing-the-abs.html>

<sup>34</sup> IMF 2009, The 2008 SNA Implementation Report by the United Nations Statistics Division [www.imf.org/external/pubs/ft/bop/2009/09-09.pdf](http://www.imf.org/external/pubs/ft/bop/2009/09-09.pdf)

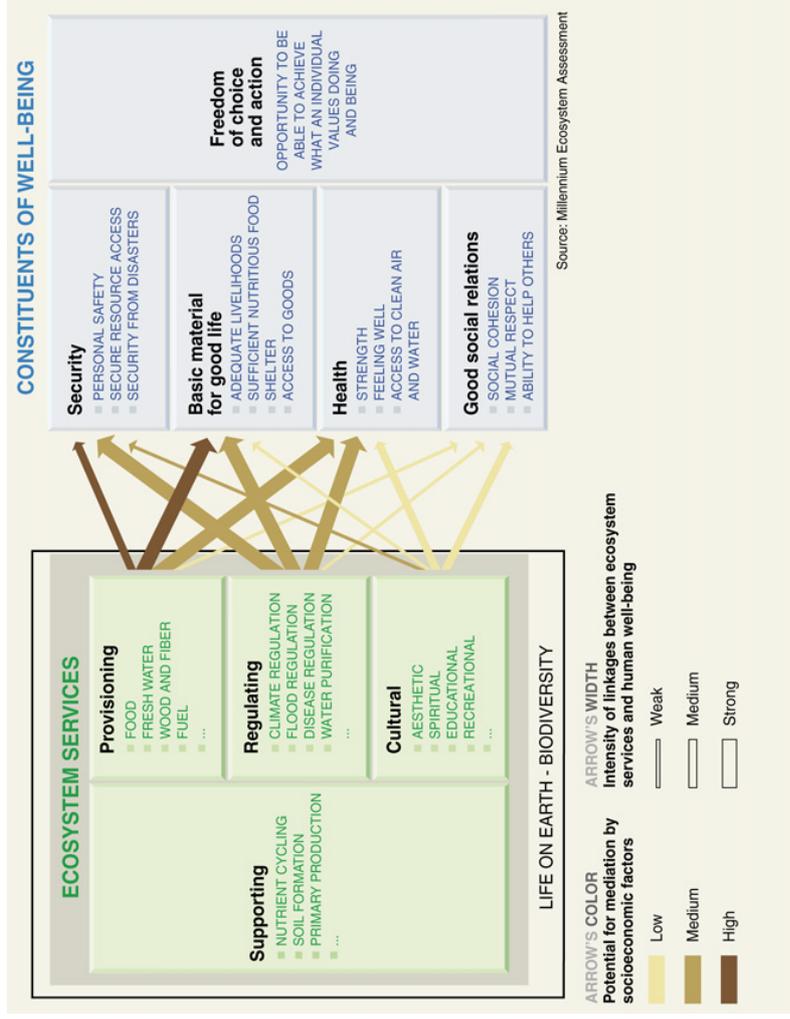


Figure 4: Millennium Ecosystem Assessment (2005) Ecosystems and Human Well-Being Synthesis Report p vi.

The Millennium Ecosystem Assessment (MA) report illustrates the interrelationships between the ecosystems (from natural assets) and well-being<sup>35</sup>. The above diagram illustrates the linkage between eco system services that arise from natural resources (supporting, provisioning, regulating and cultural) on which we rely for our security, basic material for a good life, for health, good social relations and freedom of choice and action.

We can no longer assume that natural assets will be available to continue to sustain eco-systems as before. We now need to manage natural assets if we are to continue to benefit from the core constituents of well-being.

Human capital provides us with the skills and knowledge to access, use and maintain the assets we control. Social capital enables us to work peacefully together to create the public services we use.

### **3.1.3 Interrelationships among public assets**

The benefit of assets can no longer be maintained by managing assets as if they are independent objects. The world's nations now work to alleviate poverty through pursuing the Millennium Development Goals (MDG) and the World Bank monitors the achievement of the MDGs using a model that includes the monitoring of physical assets, human assets and environmental assets. Governance assets and policy instruments that form part of social capital are central to this model<sup>36</sup>.

Sustainable development cannot be achieved when we work in silos: professional, organisational, institutional or even national. To achieve sustainability of life on earth systemically managing the inter-relationships among public assets and the impact of their operation and maintenance on other public assets is a pre-requisite.

Bringing the data collected together in a user-friendly way and monitoring the quality of the data is a challenge. The World Bank has indicated the need to better understand and report the link between short-term, medium-term and long-term frameworks. Decisions will need to reflect these inter-relationships.

## **3.2 Public Assets and Their Management**

Useful management reports of public assets commonly focus on the areas that are being managed well, the areas where there are risks and the areas which are underperforming. Management then can respond to this information in a way that creates incentives to change behaviour

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<sup>35</sup> MA (2005) *Ecosystems and Human Well-Being Synthesis Report* p vi. See: <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>

<sup>36</sup> Bourguignon, F. 2006, MDG Strategy Analysis: Issues, Methods and Agenda for Future Work <http://siteresources.worldbank.org/EXTDECPROSPECTS/Resources/476882-1190137832134/4192984-1190137901387/BourguignonMAMSUNDPPT200608.pdf>

### 3.2.1 Implications of management

Governance structures must not give decision making power to actors with a limited knowledge of or interest in the impact of the operation of a public asset in the community. Poor decisions can result from the good intentions of managers who have legitimate power within these structures.

Poor understanding of user demand has resulted in non-viable public assets. Examples include tunnels costed with reference to an anticipated a number of trips that did not eventuate; airports expanded to serve domestic carriers by cross-subsiding their use with charges to international carriers, and water management in Jakarta in the 1980s when as few as 1200 water taps served at least 2.5 million people<sup>37</sup>.

Sustainability has a range of meanings from “financial sustainability<sup>38</sup>”, “long term financial planning<sup>39</sup>”, “economic sustainability and social well-being<sup>40</sup>” to “adapting to climate change<sup>41</sup>”. The concept also includes the next generation (Brundtland<sup>42</sup>) and the preservation of ecosystem services (MA Panel<sup>43</sup>).

Rules that were designed to apply to built assets have been forced into service and applied to natural assets. For example, a tree in a park or a natural walkway may not be recognised as an “asset” because it was not built.

Decisions that lead to solutions to current problems, for example creating construction sector jobs, are preferred over those that lead to sustainable results over the long-term.

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<sup>37</sup> Kenny, C. 2007 Infrastructure Governance and Corruption. Policy Research Working Paper 4331. The World Bank, p 7.

<sup>38</sup> See for example, ADB Handbook for Economic Analysis for Water Supply Projects, 8.2 [http://www.adb.org/documents/handbooks/water\\_supply\\_projects/Chap8-r6.PDF](http://www.adb.org/documents/handbooks/water_supply_projects/Chap8-r6.PDF) last accessed 6th September, 2011.

<sup>39</sup> Government of Western Australia, Department of Local Government. 2011. Long term Financial Planning: Framework and Guidelines. [integratedplanning.dlg.wa.gov.au/AboutIntegratedPlanning.aspx](http://www.integratedplanning.dlg.wa.gov.au/AboutIntegratedPlanning.aspx) last accessed 6<sup>th</sup> September 2011.

<sup>40</sup> Gale, R and Milham, N. 2009. Monitoring, evaluation, reporting and improvement (MER) as an integrated assessment tool: Improving socio-economic and biophysical outcomes in investment decisions in natural resource management (NRM), Working Paper 5 [www.dpi.nsw.gov.au/data/assets/pdf\\_file/0009/349074/Working-Paper-5-Gale-Milham.pdf](http://www.dpi.nsw.gov.au/data/assets/pdf_file/0009/349074/Working-Paper-5-Gale-Milham.pdf) last accessed 6<sup>th</sup> September 2011.

<sup>41</sup> CSIRO, Urban Sustainability in Asia <http://www.csiro.au/science/Urbanisation-In-Asia.html> last accessed 6<sup>th</sup> September, 2011.

<sup>42</sup> “Sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs.” See: Drexhage, J and D. Murphy 2010. Sustainable Development: From Brundtland to Rio 2012 [http://www.un.org/wcm/webdav/site/climatechange/shared/gssp/docs/GSP1-6\\_Background%20on%20Sustainable%20Dev.pdf](http://www.un.org/wcm/webdav/site/climatechange/shared/gssp/docs/GSP1-6_Background%20on%20Sustainable%20Dev.pdf) last accessed 6<sup>th</sup> September, 2011.

<sup>43</sup> MA 2005. Ecosystems and Human Well-Being: Synthesis <http://www.maweb.org/documents/document.356.aspx> last accessed 6<sup>th</sup> September, 2011.

Sophisticated decision-making methodologies are biased towards factors that produce data and against those that require qualitative judgement (Australian Infrastructure Financial Management Guidelines<sup>44</sup>).

Reforms to the provision of infrastructure, including private sector provision as a substitute for purely public sector provision, have had mixed results. The World Bank has noted that “where monopoly provision predominates, where pricing is politically sensitive and investment payback periods are long, the public sector will frequently remain the dominant force<sup>45</sup>”. In these cases, the quality of the government institutions managing the infrastructure stock will be vital to determining outcomes.

### **3.2.2 The need for systemic management of public assets**

Regardless of who is responsible for the management or control of public assets, governance structures are crucial to overall performance.

Good governance is vitally important if governments are to achieve their objectives from investment in public assets.

Aid to developing countries performs better in the presence of strong institutions. Corruption, a symptom of weak governance, raises the price of public assets and reduces the quality of and economic returns from infrastructure investment<sup>46</sup>.

The Paris Declaration was signed to improve the effectiveness of aid and its impact on development. The benefits to be achieved by the resulting collaboration between developing countries and donors rely on developing countries being able to set their strategies, improve their institutions and tackle corruption. Just as uncoordinated aid did not result in the desired development outcomes, so too governance will fail to achieve results if it does not coordinate the management of the entire stock of public assets.

The Millennium Ecosystem Assessment has demonstrated the inter-relationship between eco-system services and human well-being. The UNDP has demonstrated the inter-relationship between human resources and development outcomes. The World Bank has demonstrated the relationship between governance and development outcomes, and has also found that failed governance can lead to the construction of the wrong infrastructure, poor construction and quality of

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<sup>44</sup> <http://www.lgsa-plus.net.au/www/html/1756-australian-infrastructure-financial-management-guidelines.asp>

<sup>45</sup> Kenny, C. 2007 “Infrastructure Governance and Corruption: Where Next?” Policy Research Working Paper 4331, Worldbank, p. 2.

<sup>46</sup> Kenny, C. 2007, p.4.

provision, insufficient maintenance as well as high levels of thefts and losses<sup>47</sup>. Managers are being challenged to manage in the context of the “big picture” to achieve measurable short-term benefits from the investment in public assets while ensuring long-term sustainability.

### **3.2.3 Benefits of systemic management of public assets**

Long-term sustainability of the planet and a good quality of life for all humanity is the benefit all governments seek. This requires the maintenance of:

- (a) A reasonably stable and predictable climate;
- (b) Air that is safe to breathe;
- (c) High-quality water in sufficient quantities; and
- (d) Intact natural landscapes suitable for supporting a diversity of plant and animal life<sup>48</sup>.

Sustainable development that preserves the planet’s biodiversity, meets the needs of an increasingly urban population and eradicates poverty cannot be achieved without planning of human settlements. Planning requires careful management of governments’ investment in public assets. Trade-offs among parts of the stock of public assets can be planned to result in development outcomes if managed carefully.

We know that some countries are doing much better than others<sup>49</sup>, even those with the same GDP per capita. Within different countries there is uneven development<sup>50</sup>. By collecting and analysing data on development, governments can target individual investment and expenditure to achieve the outcomes sought, including the alleviation of poverty.

Economic wealth, the sum of the value of all assets that contribute to market production, including financial, produced, natural, human and social capital, is not inconsistent with sustainability. While only financial and produced capital produce observable data, it is now still possible to estimate the contribution of other assets to economic wealth<sup>51</sup>.

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<sup>47</sup> Kenny, C 2007. P6.

<sup>48</sup> UNECE, 2009, p. 17.

<sup>49</sup> For example, education outcomes in Middle Eastern and North African (MENA) countries varies and even conflict cannot explain the difference. See: [http://siteresources.worldbank.org/INT/MENA/Resources/EDU\\_06-Chap06-Education.pdf](http://siteresources.worldbank.org/INT/MENA/Resources/EDU_06-Chap06-Education.pdf) last accessed 5 September, 2011.

<sup>50</sup> The disaggregated human development index highlights uneven development. See: <http://hdr.undp.org/en/statistics/hdi/> last accessed 5 September, 2011.

In response to the ongoing economic and financial crisis, governments around the world have pledged to spend trillions of dollars on infrastructure over the years between 2009 and 2015. The benefits they seek include new engines of economic growth for generations to come based on new energy, globally competitive health care and strong education. By investing in regional infrastructure, governments seek greater prosperity and stability for countries in the region. The contribution of governance to regional infrastructure has been measured. It is seen as one of the major determinants of economic integration, is a non-rival in consumption, functions as a regional public good, and enhances regional connectivity<sup>52</sup>.

Already initiatives taken in the context of the MDGs have helped lift millions of people out of poverty, have saved lives and ensured that children attend school. They have reduced maternal deaths, expanded opportunities for women and freed many people from debilitating and deadly disease<sup>53</sup>.

This improvement in the quantity and quality of life of millions of people has been achieved by the systemic management of public assets and projects to achieve the MDGs. Further benefits are possible, and the barriers are well known.

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<sup>51</sup> UNECE, 2009, Measuring Sustainable Development, p 16.

<sup>52</sup> De. P. 2010. Governance, Institutions and Regional Infrastructure in Asia. ADBI Working Paper 183. Tokyo: Asian Development Bank Institute. Available: <http://www.adbi.org/working-paper/2010/01/04/3425.gov.institutions.region.infrastructure.asia/> p. 1-7.

<sup>53</sup> Ban, Ki-Moon 2011. The Millennium Development Goals Report 2011, [http://www.un.org/millenniumgoals/11\\_MDG%20Report\\_EN.pdf](http://www.un.org/millenniumgoals/11_MDG%20Report_EN.pdf) last accessed 5<sup>th</sup> September, 2011.

## 4 Barriers to systemic management and reporting of public assets

This section identifies the barriers to the systemic management and reporting of public assets to be: poor governance, inadequate human capacity, competing priorities and the lack of reliable data, all of which make it difficult for governments to achieve the outcomes they seek.

### 4.1 Governance Issues

The growth in population, telecommunications, regional organisations and the consequent need for global consensus around issues of urbanisation affect public assets.

Law-making processes and legislature-constituent relationships lie at the core of national governance. Governments and donors discovered that the MDGs cannot be achieved without effective overarching political governance frameworks<sup>54</sup>. The result has been a greater reliance on regional bodies like, for example, the Pacific Island Forum, that assist members in their governance.

Regional institutions support the collaboration of national governments in addressing areas of mutual concern, such as waste management, fisheries and water management.

The challenges facing cities and regions in particular have led to governments taking a more entrepreneurial style of planning and to enhance their competitiveness. Governments everywhere are adopting creative processes, involving skills and resources that are external to the traditional administrative apparatus<sup>55</sup>. This trend is in the context of highly developed institutional governance and a good stock of public assets<sup>56</sup>. And it challenges those with responsibility for governance to monitor and coordinate the work of these extra-bureaucratic working group, not only to identify gaps between the work of entities, but also to meet legislative accountability requirements as they achieve the government's goals.

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<sup>54</sup> Morgan, M. 2005. Building Political Governance Frameworks: Advancing the Millennium Development Goals in the Pacific Islands through Parliamentary Strengthening. [http://www.undppc.org/fi\\_resources/article/files/Building\\_Governance\\_Framework.pdf](http://www.undppc.org/fi_resources/article/files/Building_Governance_Framework.pdf) last accessed 5th September, 2011.

<sup>55</sup> Albrechts, L. Strategic planning and regional governance in Europe: Recent trends and policy responses, Chapter 4 in Xu, J. Yeh, A. G. O. Governance and Planning of Mega-City Regions: An International Comparison. <http://books.google.com.au/books?hl=en&lr=&id=KSiYcdNvNcC&oi=fnd&pg=PA75&dq=regional+governance+in+a+global+context&ots=sY5KEBNx2k&sig=zSvHriUJUK8o4peLU62VHj#v=onepage&q=regional%20governance%20in%20a%20global%20context&f=false> last accessed 5<sup>th</sup> September, 2011.

<sup>56</sup> See Da, P above.

Much of the emphasis on strengthening governance in Asian countries resulted from the response to the 1997 financial crisis<sup>57</sup> but with a wide range of responses actually applied. It should be noted that the term “Asia” holds little meaning among countries as diverse as Afghanistan and the Philippines. However across these countries spanning the land from Turkey to the Pacific Islands, there is a world-view and world-outlook of tremendous strength that draws on the participation of elders in decision making to combine the past, present and future in an inter-dependent combination<sup>58</sup>. The benefits of this wildly held world view have yet to be captured in policies, legislation, systems and practices..

## 4.2 Capacity Issues

Just over 4.2 billion people live in the Asia Pacific region in 2010; 61% of the world's population<sup>59</sup>.

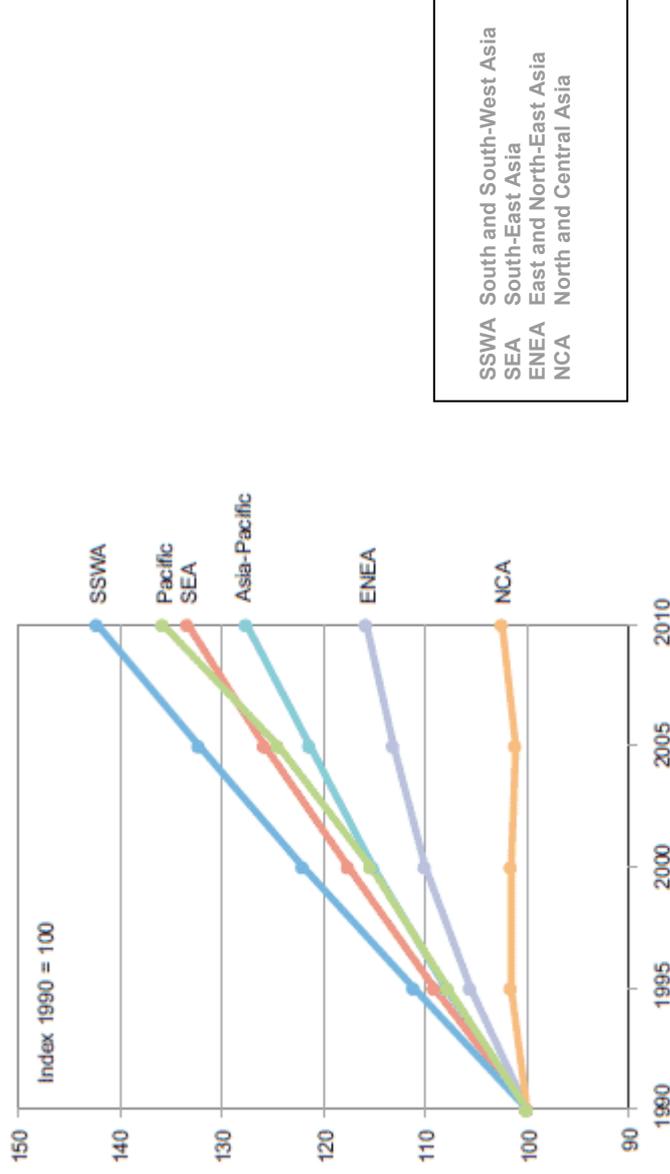
The average annual population growth in the Asia-Pacific is the lower than the world's average, being only 1.0% in the period to 2010. There is, however, wide variation among countries in the region. The population growth in the Pacific islands continues to be high, as does that in South and South West Asia.

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<sup>57</sup> ADB 1999. Governance in Asia: From Crisis to Opportunity <http://www.adb.org/Documents/Reports/Governance/> last accessed 5<sup>th</sup> September, 2011.

<sup>58</sup> Helgesen, G. Asian governance and institutions in transition. Nordic Institute of Asian Studies. <http://nias.ku.dk/research/themes/governance.asp> last accessed 5<sup>th</sup> September, 2011.

<sup>59</sup> <http://www.unescap.org/stat/data/syb2011/-People/Population.asp>



61% of the world's population lives in the Asia and Pacific region with about 37% living in the two most populous countries: People's Republic of China and India<sup>60</sup>. In most countries, about 30% of the population is aged fourteen or younger. Building capacity in a population dominated by youth presents a challenge for cultures in which older leaders are the norm.

Yet it is not a static population. In 2010, Asia and the Pacific is the second least urbanized region of the world, with only 43% of the population living in urban areas. However, it has the second fastest urban population growth rate, at an average of 2% per annum (2005-2010)<sup>61</sup>.

<sup>60</sup> ADB 2010. Key Indicators for Asia and the Pacific. [http://www.adb.org/documents/books/key\\_indicators/2010/pdf/Key-Indicators-2010.pdf](http://www.adb.org/documents/books/key_indicators/2010/pdf/Key-Indicators-2010.pdf). Last accessed 5<sup>th</sup> September, 2011.  
<sup>61</sup> <http://www.unescap.org/stat/data/syb2011/I-People/Urbanization.asp>

Across the region, the growth rate varies dramatically. The cities in South East Asia are growing at 2.2% per annum. Rural areas are becoming urban. And cities are both contributing to and affected by climate change.

High levels of urbanisation and rapid economic growth go together. Most of the Asia Pacific urban population live in secondary cities and small towns. As of 2009, 60% of the urban population in continental Asia lived in cities with a population fewer than one million.

Life expectancy in the Asia Pacific is high with adults in most countries in the region living to at least 70yrs. Some are living to over 80 years. With this increasing life expectancy the proportion of population that is elderly has been steadily increasing.

One of the main challenges facing governments in the region is that “the number of older persons (age 65 and above) in the region is estimated to increase threefold, from 420 million in 2010 to almost 1.3 billion by 2050, by which time older persons are expected to constitute almost 25% of the total regional population.<sup>62,</sup>

This relatively stable but aging population in the Asia Pacific is demanding public assets different to that demanded by previous generations. It seeks connectivity through information and communications technology, transport and tourism. The young people are staying at school longer but there is still a high number of illiterate adults in the Asia Pacific Region. Understandably the demands for health care, transport and clean water is driving new investments in public assets.

Built assets alone cannot meet the needs of the population.

The other challenge is that MDG goals for universal primary education aim for 95% of youth in the region to be literate, but primary school enrolments still have some way to go in achieving full enrolments. The impact of telecommunications has presented challenges for entire populations. Youth are quick to adopt the technology that enables the exchange of opinions and the superficial swapping of information. Elders are challenged by the pace of change and the need to adopt their leadership styles to the new media. Issues that affect public assets, their sustainability, longevity and maintenance, are ill represented in the new media. Trade-offs between social capital and physical infrastructure are made without full awareness or understanding of the impact on future options. Decision-makers in a youth dominated culture are not always motivated to consider the longer-term implications of decisions that they would have made differently, had the population been older, better informed or better led.,.

Providing incomes and jobs for this cohort presents another barrier to public asset management. While primary education participation is increasing, education and training systems in East Asia often lack quality and relevance, leaving workers ill-prepared to meet demands of the labour market<sup>63</sup>.

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<sup>62</sup> <http://www.unescap.org/stat/data/syb2011/I-People/Population.asp>

The way we govern and the relationships we form must adapt. For example, Australia has been managing its growing population by slowly centralising its planning of infrastructure and access to key resources, particularly water. Local governments have been amalgamated, and the State and National Governments are preparing Infrastructure Plans<sup>64</sup>.

Australia is also a party to a number of agreements that seek to build a more sustainable Asia Pacific Region. For example, the Green Jobs in Asia Project of the International Labour Organisation<sup>65</sup> is committed to transitioning work and workplaces toward a low-carbon, sustainable and environmentally sustainable future development across Asia and the Pacific<sup>66</sup>.

Singapore has fostered a “productivity mind-set” similar to that of Japan in its goal to be a productive nation<sup>67</sup>. In addition to nurturing the productivity culture, it has consciously built competencies for creating value, strengthened connections and collaborations across organisations and with regional partners, and encouraging enhanced environmental conditions.

Building human capital requires resources. Expenditure on education per capita is highest in the most developed economies. Taiwan, for example, was already spending a relatively high 6.5% of its budget on education by 1996. Some claim that the economic development of Taiwan, Korea, Singapore, China and Hong Kong resulted from governments’ historically high levels of expenditure on education and their relatively steady investments in the post-war period<sup>68</sup>. This investment in human capital has resulted in the overall improvement in the quality of life in these countries.

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<sup>63</sup> East Asia Skills Development for Productivity conference (March 23-25, 2011) <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:22894290~menuPK:282424~pagePK:64020865~pPK:149114~theSitePK:282386,00.html> last accessed 5<sup>th</sup> September, 2011.

<sup>64</sup> [http://www.infrastructureaustralia.gov.au/infrastructure\\_plans/](http://www.infrastructureaustralia.gov.au/infrastructure_plans/)

<sup>65</sup> [http://www.ilo.org/asia/whatwedo/projects/WCMS\\_146311/lang-en/index.htm](http://www.ilo.org/asia/whatwedo/projects/WCMS_146311/lang-en/index.htm)

<sup>66</sup> [http://www.ilo.org/asia/WCMS\\_159346/lang-en/index.htm](http://www.ilo.org/asia/WCMS_159346/lang-en/index.htm)

<sup>67</sup> Lee Suan Hiang. Success is Spelled with 4-Cs, [http://www.apo-tokyo.org/productivity/064\\_prod.htm](http://www.apo-tokyo.org/productivity/064_prod.htm) last accessed 5<sup>th</sup> September, 2011.

<sup>68</sup> Tiak, J.B.G. 2002. Building Human Capital in East Asia: What Others can Learn. National Institute of Educational Planning and Administration, New Delhi, India. <http://siteresources.worldbank.org/WBI/Resources/wbi37166.pdf> last accessed 5<sup>th</sup> September, 2011.

### 4.3 Competing Priorities

Resources available to governments are limited. Arguments that investments in education lead to increases in the quality of life are heard alongside arguments that increases in physical infrastructure result in economic growth. The degradation of natural resources calls for investment in the sustainability of biodiversity in the region. Governments have to allocate resources to meet basic needs. Getting the balance right is typically difficult.

The macroeconomic policy of developing countries has contributed to the economic strength or weakness of East Asian countries. Favourable exchange rates and interest rate changes, copious capital flows in financial markets, technological change that facilitates globalisation and industrial restructuring also affect each government's ability to invest in public assets.

Political stability is a key factor influencing the economic growth in the region. So too is a stable international trade environment<sup>69</sup>. However, achieving political stability does not always come with a perspective on the longer-term. Political survival may require short-term gains that, within a different environment, would best be sacrificed for longer-term sustainability.

Just as macroeconomic policies affect each government's ability to invest in public assets, so too do global events. The global financial crisis, natural disasters and other events affect the form and content of each nation's stock of public assets.

### 4.4 Data Collection Issues

The United Nations already collects data on environmental assets, human development indices, the state of the world's children and many other data sets<sup>70</sup>. This data relies on national statistical offices, and there are many offices unable to provide government with the full set of data required to analyse policies and monitor implementation. There is yet to be established a system for setting priorities for training staff of statistics offices of developing countries. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) has set up a small working group to coordinate statistical training programmes in the region with the objective of the production of timely and reliable official statistics by Asia- Pacific countries.

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<sup>69</sup> Fukasaku, K. M. Kawai, M.G. Plummer and A. Trzeciak-Duval 2005. Policy Coherence towards East Asia: Development Challenges for OECD Countries, Policy Brief No. 26. OECD Development Centre. <http://www.oecd.org/dataoecd/15/41/34982822.pdf> last accessed 5th September, 2011.

<sup>70</sup> See: <http://data.un.org/DataMartInfo.aspx>

For years the ADB has helped developing member countries (DMC) gather and disseminate statistical data. ADB contributes to the analysis of statistics gathered by DMCs in the region and publishes, not only the annual “Key Indicators for Asia and the Pacific” but also tools and methodologies to assist them develop capacity for analysis, for example “Poverty Impact Analysis”<sup>71</sup>.

The growing capacity of statistics offices to gather and analyse data has yet to overcome one of the more difficult of the challenges facing developing countries, the tendency to develop human capacity within professional and institutional “silos”. Increasing specialisation is a barrier to systemic management of public assets and general decision-making. This is a challenge all nations face.

Barriers to the systemic management of public assets include the challenge of governance of nations dominated by youth, of building the capacity of youth to address long-term sustainability, of balancing competing priorities and of collecting data on which to evaluate the management of public assets. Much work has already been done.

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<sup>71</sup> Sugiyarto, G. 2007. Poverty Impact Analysis: Selected Tools and Applications. <http://www.adb.org/documents/Books/Poverty-Impact-Analysis/Poverty-Impact-Analysis.pdf> last accessed 5th September, 2011.

## 5 Existing Endeavours

This Section identifies the existing endeavours of institutions, agencies and professions to address the challenges facing governments in managing public assets. It lists the types of resources available to governments (methodologies, practice manuals and publications, ICT systems, emerging policy and legislation, education and training, foreign aid projects and the work of the UN and other international projects, international standard and professional bodies' guidance.) It outlines the framework within which governments manage public assets and provides a brief history of the management of public assets.

### 5.1 Scan of resources

A scan of the resources quoted already identifies a wealth of resources available. In addition to reports on the state of public assets worldwide, there are methodologies, manuals, ICT systems, emerging government policy frameworks and legislation, education and training courses and many agencies working towards a common goal. This section of work already completed and underway that can inform the systemic management of public assets.

#### 5.1.1 Methodologies, Practice Manuals and Publications

Statistics Offices have been working collaboratively to develop methodologies to measure public assets. Examples include the UNSNA, the United Nations Department of Economic and Social Affairs (UNESA)'s Geospatial Infrastructure for Census<sup>72</sup>, OECD's work on measuring human capital, the MDG indicators<sup>73</sup>, and others including those in the United Nations Statistics Division's databases<sup>74</sup>.

Manuals to assist national governments assess their management of public assets include, in addition to the advice from their statistics offices, the IMF Monetary and Financial Statistics Manual<sup>75</sup>, the Public Expenditure and Financial Accountability (PEFA) framework<sup>76</sup>, the Australian Infrastructure Financial Management

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<sup>72</sup> UNESA 2000 Handbook on Geospatial Infrastructure in Support of Census Activities

<sup>73</sup> <http://mdgs.un.org/unsd/mdg/Default.aspx>

<sup>74</sup> <http://unstats.un.org/unsd/default.htm>

<sup>75</sup> <http://www.imf.org/external/pubs/ft/mfs/manual/index.htm>

<sup>76</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/PEFA/0,,contentMDK:22677693~menuPK:7313176~pagePK:7327442~theSitePK:7327438,00.html> last accessed 6<sup>th</sup> September, 2011.

Guidelines<sup>77</sup>, the International Infrastructure Management Manual<sup>78</sup>, Building Management Procedures Manual<sup>79</sup>, Human Capital: A Guide for Assessing Strategic Training and Development<sup>80</sup>, World Wildlife Fund (WWF) Community-based natural resource management manual<sup>81</sup>, Natural Resource Management Manual for Local Government Operational Staff<sup>82</sup>. The Global Reporting Initiative (GRI)<sup>83</sup> has issued guidance for public sector agencies to use in preparing sustainability reports.

Publications issued by the United Nations and its agencies as well as those of the multi-lateral development banks (ADB, World Bank and others) provide a useful resource for governments. The ADB National Development Outlook<sup>84</sup> provides useful information on the challenges in the region. The World Bank publications<sup>85</sup> include the World Development Indicators. The UNDP Human Development Report and the Millennium Goals Reports provide country-specific information<sup>86</sup>. There is much information available electronically and information and communication technology (ICT) systems can be specified to intelligently access, store, collate and report it.

### 5.1.2 Information Communication Technology Systems

The introduction of computers to the workplace in the 1980s led to a fascination with computers and their capabilities. Government procured computers and learnt to use them to replace typewriters, enter data, store data and to eventually publish and market their activities.

A few countries developed information policies that brought together the power of computers with the skill of information managers. The term “information policy” can mean “information security”, “information systems”, and many other terms. For example the United States established an Office of Information Policy to help

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<sup>77</sup> Available through the Institute of Public Works Engineers Australia <http://www.ipwea.org.au/bookshop/aifmg/>

<sup>78</sup> <http://www.nams.org.nz/pages/72/international-infrastructure-management-manual.htm>

<sup>79</sup> [http://www.buildingcommission.com.au/resources/documents/DOI\\_Manual.pdf](http://www.buildingcommission.com.au/resources/documents/DOI_Manual.pdf)

<sup>80</sup> GAO <http://www.gao.gov/new.items/d04546g.pdf>

<sup>81</sup> [http://assets.wwf.no/wwf-web-1.bluegecko.net/downloads/cbnrm\\_manual.pdf](http://assets.wwf.no/wwf-web-1.bluegecko.net/downloads/cbnrm_manual.pdf)

<sup>82</sup> [http://www.populationinquirygld.com.au/c/document\\_library/get\\_file?uuid=3b20f45e4cd296e81261d15cb45f85b4&groupId=10136](http://www.populationinquirygld.com.au/c/document_library/get_file?uuid=3b20f45e4cd296e81261d15cb45f85b4&groupId=10136)

<sup>83</sup> [http://www.globalreporting.org/NR/rdonlyres/D7030C20-69C0-4FA3-B08B-9668A7658F9A/0/SS\\_PublicAgency\\_ENG.pdf](http://www.globalreporting.org/NR/rdonlyres/D7030C20-69C0-4FA3-B08B-9668A7658F9A/0/SS_PublicAgency_ENG.pdf)

<sup>84</sup> See the publications available through the ADB at <http://beta.adb.org/publications/search/44,495>

<sup>85</sup> <http://publications.worldbank.org/>

<sup>86</sup> <http://www.undp.org/publications/>

manage agency's implementation of the Freedom of Information Act (FOIA). New Zealand developed a policy framework for the management of Government-held information<sup>87</sup>.

ICT systems have been developed to retrieve and store information on finances, assets and human resources. There are few truly integrated ICT systems. Some of the asset management modules of financial systems fail to live up to their promises. Some of the smaller and cheaper ones are very useful. Manual and spreadsheet based systems, readily controllable by staff, are being used throughout the region. While these are user-friendly, they do not have the advantage of being readily searchable and of producing reports in many formats.

While ICT systems can assist in the management of information, it is important that professional information managers are involved. They add value by assessing the needs of users for information, the way they access and use it and how the integrity of shared data can be maintained.

### **5.1.3 Emerging Government Policy and Legislation**

Since the Rio Earth Summit, the private sector has led the way in preparing sustainability reports. The GRI guidelines for the private sector are being adapted to apply also to public sector entities.

Governments are looking to the benefits of sustainability reporting by their agencies.

In Europe, Sweden<sup>88</sup>, Denmark<sup>89</sup>, Germany<sup>90</sup> and the UK<sup>91</sup> governments have passed legislation requiring such reporting. Other governments require sustainability reports by local governments and individual agencies.

The Malaysian and Indonesian governments are mandating the management and reporting of assets and will be soon in a position to build their agencies' capacity to prepare reports on sustainability.

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<sup>87</sup> [http://www.ssc.govt.nz/Documents/policy\\_framework\\_for\\_Government\\_.htm](http://www.ssc.govt.nz/Documents/policy_framework_for_Government_.htm)

<sup>88</sup> <http://www.pwc.com/se/sv/hallbar-utveckling/assets/sweden-report-to-esra-2010.pdf>

<sup>89</sup> [http://www2.accaglobal.com/documents/denmark\\_esra.pdf](http://www2.accaglobal.com/documents/denmark_esra.pdf)

<sup>90</sup> [http://www.bundesregierung.de/nsc\\_true/Webs/Breg/nachhaltigkeit/Content/\\_\\_\\_Anlagen/2010-11-03-indikatorenbericht-2010\\_\\_en.property=publicationFile.pdf/2010-11-03-indikatorenbericht-2010\\_\\_en](http://www.bundesregierung.de/nsc_true/Webs/Breg/nachhaltigkeit/Content/___Anlagen/2010-11-03-indikatorenbericht-2010__en.property=publicationFile.pdf/2010-11-03-indikatorenbericht-2010__en)

<sup>91</sup> [http://sd.defra.gov.uk/documents/SDI2010\\_001.pdf](http://sd.defra.gov.uk/documents/SDI2010_001.pdf) and [http://www.hm-treasury.gov.uk/frem\\_sustainability.htm](http://www.hm-treasury.gov.uk/frem_sustainability.htm)

#### **5.1.4 Education and Training**

An education and training need accompanies the requirement to report public assets. Various institutes have been created to help government agencies meet this need. The Centre for Sustainability Reporting, the Centre for Sustainability Accounting, the Global Reporting Initiative, the Centre for Sustainability and Excellence are but a few.

#### **5.1.5 Foreign Aid Projects**

Donors are working with developing country governments to assist them to develop the capacity to manage sustainably. The World Bank has developed and approved a sustainability framework<sup>92</sup>. The OECD is packaging its information within the overall concept of sustainability<sup>93</sup>.

Multi-Donor Trust Funds have been proposed to address the impact of climate change. This regional solution leaves the responsibility for responding to impacts on countries to regional bodies rather than solely to the individual country. Some countries see this as a challenge to their sovereignty. Others see it as a necessary response to what is a regional problem.

The Japanese International Cooperation Agency (JICA) is pursuing mitigation measures<sup>94</sup>. The Australian Agency for International Development (AusAID) has established partnerships with developing countries to reduce the impact of carbon emissions from their development<sup>95</sup>. The United States Agency for International Development (USAID) is providing methods and information to facilitate assessment of possible impacts and adaptation options for projects<sup>96</sup>.

#### **5.1.6 UN and other International Projects**

The United Nations has long provided leadership in addressing the challenge of development that retains options for future generations. The United Nations, in 1987, issued Our Common Future that contained the most widely used definition of sustainable development. The Earth Summit in Rio in 1992 sought to help governments and the private sector rethink economic development and to halt the destruction of irreplaceable natural resources and pollution of the planet<sup>97</sup>.

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<sup>92</sup> <http://www.ifc.org/ifcext/policyreview.nsf#SF>

<sup>93</sup> [http://www.oecd.org/topic/0,3699,en\\_2649\\_37425\\_1\\_1\\_1\\_37425\\_00.html](http://www.oecd.org/topic/0,3699,en_2649_37425_1_1_1_37425_00.html)

<sup>94</sup> [http://www.jica.go.jp/english/publications/reports/study/topical/climate\\_1/pdf/cli\\_02.pdf](http://www.jica.go.jp/english/publications/reports/study/topical/climate_1/pdf/cli_02.pdf)

<sup>95</sup> <http://www.usaid.gov.au/keyaid/mitigation.cfm>

<sup>96</sup> [http://pdf.usaid.gov/pdf\\_docs/PNADJ990.pdf](http://pdf.usaid.gov/pdf_docs/PNADJ990.pdf)

<sup>97</sup> <http://www.un.org/geninfo/bp/envviro.html>

Governments recognized the need to redirect both international and national plans and policies to ensure that all economic decisions fully took into account the impact on the environment. And the message has produced results, making eco-efficiency a guiding principle for business and governments alike.

Rio+20 in 2012 offers an opportunity to the heads of government and other representatives to secure renewed political commitment for sustainable development, assess the progress to date and the remaining gaps in the implementation of the outcomes of the major summits on sustainable development, and, address new and emerging challenges<sup>98</sup>. The themes of the conference are the green economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development<sup>99</sup>.

The UN recognises the need to integrate its economic, environmental and social components at all levels. It is pursuing this integration by supporting UN-OCEANS, UN-Water and UN-Energy inter-agency mechanisms to strengthen coordination and coherence among UN bodies dealing with energy and water-related issues.

In addition to international agencies, international projects have been established by interested parties to address the challenges. In the United Kingdom, the Prince of Wales has established the Prince's Accounting for Sustainability Project<sup>100</sup> to develop practical tools to enable environmental and social performance to be better connected with strategy and financial performance, and thereby imbedded in day-to-day operations and decision-making. The Sustainability Consortium<sup>101</sup> is a small group of multi-national corporations and partners established at the University of Arizona to improve product sustainability.

Private sector projects are part of the response to the agenda set twenty years ago at Rio. The Global Reporting Initiative has created a sustainability reporting framework to assist organisations meet the needs of the present without compromising the ability of future generations to meet their own needs. It has issued Version 3.1 Guidelines<sup>102</sup> with improved guidance on human rights, gender and community impacts. Version 4 is soon to be released for comment.

### **5.1.7 International Standards**

The International Organization for Standardisation (ISO) has released ISO26000 "Guidance for Social Responsibility"<sup>103</sup>. This voluntary standard recognises an organisation's performance is being measured in the context of the society within which it operates and its impact on the environment.

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<sup>98</sup> <http://www.uncsd2012.org/rio20/content/documents/support-natl-prep.pdf>

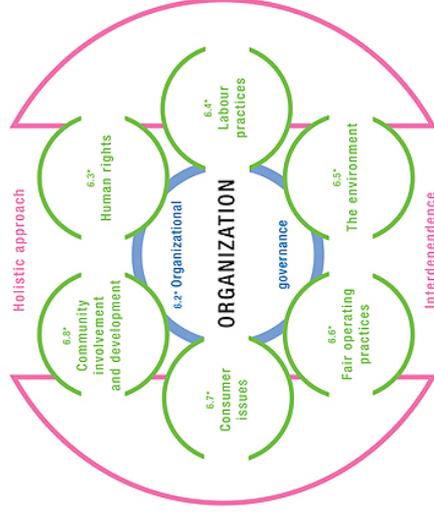
<sup>99</sup> <http://www.uncsd2012.org/rio20/index.php?menu=61>

<sup>100</sup> <http://www.accountingforsustainability.org/home/>

<sup>101</sup> <http://www.sustainabilityconsortium.org/why-we-formed/>

<sup>102</sup> <http://www.globalreporting.org/NR/rdonlyres/7DB67FFF-81EE-402F-A218-36940C883DD5/0/G31GuidelinesinclTechnicalProtocolFinal.pdf>

## Social responsibility: **7** core subjects



\*The figures denote the corresponding clause numbers in ISO 26000.

**Figure 5: ISO 26000 Guidance for Social Responsibility**

### 5.1.8 Professional Bodies

To support these international initiatives, professional organisations are providing their members with guidance.

For example, the International Federation of Accountants (IFAC) has developed a sustainability framework for accountants<sup>104</sup> to help organizations develop sustainably to reverse the previous erosion of natural resources, and to improve their environmental, social and financial performance. The IFAC framework

<sup>103</sup> [http://www.iso.org/iso/catalogue/management\\_and\\_leadership\\_standards/social\\_responsibility/sr\\_discovering\\_iso26000.htm](http://www.iso.org/iso/catalogue/management_and_leadership_standards/social_responsibility/sr_discovering_iso26000.htm)

<sup>104</sup> <http://www.accountability.org/images/content/4/3/435.pdf>

primarily targets professional accountants working in commerce, industry, financial services, education and public and not-for-profit sectors. Their aim is to assist professional accountants to influence the way organizations integrate sustainability into their missions, goals and objectives, strategies, management and operations, definitions of success, and stakeholder communication.

The World Congress of Architects, in 1993, issued a Declaration of Interdependence for a Sustainable Future<sup>105</sup>. It recognized the ecological interdependence with the whole natural environment. The International Union of Architects has committed the world's architectural and building-design professionals to advocating the fair and sustainable development, welfare, and the cultural expression of society's habitat in terms of space, forms, and historical context.<sup>106</sup>

Engineers are decentralized with international bodies for the various specialities. The World Federation of Engineering Organisations is beginning to address the challenge of climate change for engineers<sup>107</sup>.

## 5.2 Framework for Management of Public Assets

Identifying the need for action does not readily translate into increased capacity. Building capacity takes time and requires the on-going commitment of governments, with the bilateral support of political actors.

Governments at all levels manage public assets in the following ways:

1. Establishing agreed boundaries within the regulatory framework within which the public manage their private assets and undertake their work; e.g. planned development, use of land, air quality, land use, drugs available, industrial relations framework.
2. Legislative power – establishing the institutions and their mandate in making decisions;
3. As stewards of public assets for future generations - for example in their management of marine parks, national parks, museums, galleries and libraries' collections.
4. Controllers of operating assets – the assets they clearly control and use to achieve public services; for example buildings, motor vehicle fleet, office furniture and equipment.

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<sup>105</sup> <http://www.uia-architectes.org/texte/england/2aaf1.html>

<sup>106</sup> [http://www.uia-architectes.org/image/PDF/UJA-Accord%20full\\_def.pdf](http://www.uia-architectes.org/image/PDF/UJA-Accord%20full_def.pdf)

<sup>107</sup> <http://www.wfeo.net/>

5. Infrastructure - planning, designing and organising the building and maintenance of infrastructure; for example, water supplies, energy market, international gateways, freight network and telecommunications.

Governments apply conventions and rules in making executive decisions. These usually take into consideration the key impacts of those decisions.

The changing expectations of governments in their management of public assets are managed within this context - one that contains many, and varying, guidelines on the accountability of government and their entities, legislative requirements, management practices and protocols and conventions.

The various guidelines are influenced by different professionals. For example a government's policy or approach to managing for sustainability may be led by scientists, or developers, or accountants, or engineers. The push to implement regional or international methodologies may, or may not, ensure the overall sustainability of eco-systems.

The risks in not managing land, eco-systems and other public assets sustainably are now prohibitively high. Loss of eco-system services may be irreversible. Land degradation, the long-term loss of eco-system function and services which are vital for human existence<sup>108</sup>, may lead to entrenched poverty, the degradation of social capital and to other costs that could be avoided.

The systemic management of public assets, together with protocols that take into consideration impacts of decisions on eco-systems and other public assets may reverse the current declining trend in land productivity, increasing land degradation, the loss of human capital, natural capital and social capital<sup>109</sup>.

By developing and using a systemic management framework that incorporates the principles of sustainability into the management of public assets EAROPH can assist executives to monitor their public assets in the short, medium and long term.

### **5.2.1 History of Public Assets Management**

Governments develop the capacity to manage the public assets crucial to the survival of their peoples.

Emperors and Monarchs managed their land and their borders. They managed trade, taxation and the expenditure of gold and, later, currency.

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<sup>108</sup> See: notes of the high-level meeting on addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication held on 20<sup>th</sup> September, 2011. [http://www.un.org/en/ga/president/65/issues/66ga\\_unccd\\_himtg.pdf](http://www.un.org/en/ga/president/65/issues/66ga_unccd_himtg.pdf) last accessed 14th October, 2011.

<sup>109</sup> 2009, The importance of Indigenous Peoples in Biodiversity Conservation, World Bank Group See: <http://siteresources.worldbank.org/EXTENV/MAT/Resources/3011350-1271279658247/V/P1-TauliCorpuz.pdf>

They managed inventories of trade goods, of food, weapons and other stocks required to maintain a viable nation.

Modern governments continue to manage land, inventories and defence materials as well as monetary assets. The way they manage these changes over time. Since the introduction of ICT, governments are now building their capacity to record and manage these assets electronically. They are developing financial management systems that record not only monetary assets, but also debtors and receivables, inventories, and fixed assets: land, buildings, infrastructure, heritage collections and intangible assets. Methodologies are being developed to extend the capacity of statistics' offices to measure not only trade figures, employment, and the costs of living, but also human capital stocks.

Environmental impact assessment skills are being extended to social impact assessment and global positioning system (GPS) technology can be applied to exactly identify the position of remote assets, for example migratory wildlife, watersheds, forests and deserts. The condition of such assets can be assessed using satellite technology.

### **5.3 Conclusion**

What is missing is a way for governments to combine the various skills sets and management techniques available to achieve sustainable public assets. EAROPH, being a multi-disciplinary organisation, is in a unique position to develop and contribute a cross-sectoral and multi-disciplinary methodology for the management of all public assets.

What follows is an outline of a project that, if funded and implemented, will assist EAROPH to work with members nations to develop an systemic framework to apply in their management of public assets.

## 6 “Management of Public Assets: A Systemic Framework” – the Project

This Section provides details of the proposed project: an overview, outcome, scope, beneficiaries, outputs and the project logical framework, including the inputs. Detailed logical frameworks of each output are in appendix C.

### 6.1 Project Overview

The long-term outcome to which the project contributes is that humans contribute to the vitality of the planet, its biodiversity and its resources.

The aim is to achieve the sustainable development of the built, social and natural environment.

The strategies proposed are:

1. Prepare a comprehensive framework and clear guidelines for the management of the life-time of public assets.
2. Governments develop and use practical tools to systemically manage public assets.
3. International aid projects are designed to achieve sustainable outcomes.
4. There is long-term budgeting of the design, acquisition, operation, maintenance and disposal of public assets.
5. Macroeconomic policies drive good management of public assets.
6. Governance structures ensure externalities (economic, social, cultural, and environmental) are considered.
7. Quality consultation is undertaken by all executive bodies.
8. Capacity is available to estimate the full cost and benefits of public assets.

Under the proposed project EAROPH members will develop a framework which all levels of government can use to manage public assets. It will identify the information that governments need to track the public asset stock over time. The framework incorporates much more than financial criteria.

This framework will include assessment criteria for use by ministers and heads of central agencies and departments, mayors and councillors and related stakeholders to assess their management of public assets. A maturity model will be designed to identify the different stages of development of a government's management of public assets.

## **6.2 Project Outcome**

The outcome sought is the sustainable development of the social, built and natural environment of each nation and the whole EAROPH region.

## **6.3 Project Scope**

The project addresses the government's management of all public assets, including the legislative impact on privately controlled assets. It addresses the government's management of economics assets, inventories, built assets, including infrastructure, historical collections, natural assets, human capital and social capital.

## **6.4 Project Beneficiaries**

Future generations of residents of EAROPH member countries are the main beneficiaries. Secondary beneficiaries are the national and local level governments who will use the tools and other outputs developed. Indirect beneficiaries are multilateral bodies, donors and non-government organisations and the educational institutional who train the workforce to manage public assets.

## **6.5 Project Outputs**

The draft project outputs, to be confirmed and adapted in consultation with EAROPH member governments, are:

1. Conceptual framework
2. Definitions of public assets in each language.
3. Pro forma reports on the stock and flows of public assets.
4. Wiki of resources available to public servants responsible for whole-of-government management of public assets and, possibly, the detailed information available to assist with the management of categories of assets.

5. Maturity model to identify the different stages of development of a government's management of public assets.
6. Discussion papers on matters of importance to all countries in the EAROPH region in their management of public assets, for example the role of macroeconomic policy on the management of public assets, the impact of donor policies on sustainable outcomes, fiscal policy impacts on public assets and full costing methodologies.
7. Criteria for assessing the management of public assets, for example extend the PEFA framework, sets of criteria to assess systemic management of public assets.
8. An annotated bibliography on books, articles, documents and other textual and non-textual materials that contribute to government's management of public assets.
9. Tools for management of public assets, for example checklist for impact of annual budget on long-term life of public assets, methodologies for disclosing assumptions of costs: economic and non-economic, costing methodologies for non-economic costs. Case studies of successful management of public assets.
10. Regional workshops to collect and disseminate case studies on successful management of public assets, on community engagement practices and governance of public assets, including full costing.
11. Training courses on systemic asset management

## 6.6 Project Logframe

<b>Super Goal</b>	Humans add to the vitality of the planet, its biodiversity and its resources						
<b>Goal</b>	Sustainable development of the social, built and natural environment.						
<b>Strategies</b>	1. Comprehensive framework and clear guidelines for the management of the life-time of public assets.	2A. Governments develop and use practical tools to systematically manage public assets. 2B. International aid projects result in outcomes that are sustainable.	3. Long-term budgeting for public assets.	4. Macroeconomic policies drive good asset management.	5. Governance structures ensure externalities (environmental, social, cultural, economic) are managed.	6. There is quality consultation with all affected by decisions of executive bodies.	7. Capacity is available to estimate the full cost and benefits of public assets.
<b>Outputs</b>	Conduct five country case studies in Brunei, Indonesia, Malaysia, Solomon Islands and Korea, summarize these case studies in country reports and prepare a final report which is to be presented at the EAROPH conference in Seoul, South Korea in November 2012.						

	1.1. Conceptual framework document 1.2 Compendium/wiki of knowledge and tools, gathered from around the world and subdivided in accordance with different cultural, economic and physical environments.	2.1. Discussion paper on the impact of donor policies and bank lending policies on sustainable development. 2.2. A public asset governance assessment framework. 2.3 A public asset assessment framework.	3.1. Discussion paper identifying the fiscal policy impacts on asset management. 3.2. Checklist to identify budget allocation priorities against long-term sustainability criteria.	4.1. Discussion paper identifying the impact of macroeconomics on asset management.	5.1. Regional workshops on governance structures to share experience about the management of public assets. 5.2. Document lessons learnt.	6.1. Regional workshop and consequent documentation on methods of quality engagement practice. 6.2. Workshop on regional case studies on participation in decision making. 6.3. Training in engagement processes and techniques.	7.1. Discussion paper on practical methodologies for full costing. 7.2 Training in best practice full costing. 7.3. Costing methodologies for non-economic costs developed. 7.4. Methodologies for disclosing assumptions of costs: economic and non-economic.
<b>INPUTS</b>							
<b>Inputs - to achieve all outputs.</b>	Personnel: Steering Committee; Project Team; Sponsors for venues in EAROPH countries; Network to managers of public assets in EAROPH countries; ICT application mentors.	ICT: Electronic communication; Webinar technology; E-Publishing application	Travel and accommodation: Team to five workshops in each of EAROPH countries. Participants to workshops.	Consulting fees: Team members - three for 12 months, four for three months each.	Marketing: EAROPH networks, travel to donor offices for presentations, presentation at key conferences throughout the region, webinars	Information management: Information manager, database, annotated bibliography, website.	<b>Total</b> \$2,557,500 +. \$511,500 = \$3,069,000

<b>Cash contribution</b>	\$500 for internet access.	\$5000/yr for webinar, \$6000/yr for Adobe Prof Publishing Suite	\$896,000	\$1.3m	\$66,500	\$2,557,500 +. \$511,500 = \$3,069,000
<b>Built Asset contribution</b>	ICT applications for skype meetings. Team members provide own computers.	Computers and internet connection.	Hotels or billeted accommodation venues. Airlines and associated travel infrastructure.	Administration and supervision. Team building and motivating.	Venues provided by stakeholders.	Software \$22,500 Mgr \$24m, website \$10,000, Subscriptions \$56,000 Computers and database applications, website application and server backup. Venue for meetings with stakeholders.
<b>Social Capital contribution</b>	EAROPH Regional Chapters and members and their colleagues who will support the project.	E-communication networks through EAROPH members.	EAROPH networks.	Family support. Employer support. EAROPH engagement. Donor support. Government support. UN and OECD and related agency support.	Financial, Asset, Environmental, Social Capital, Human Capital networks in the EAROPH regional.	National thesauri of each EAROPH member country. National and Regional Information Management / Library networks. Webmaster networks. Google interface.

<p><b>Environment contribution</b></p>	<p>Electricity, internet, computers, headsets.</p>	<p>Electricity, etc.</p>	<p>Water, Food, materials to enable eating, sleeping and transportation.</p>	<p>Electricity, etc.</p>	<p>Electricity, etc. Paper and related bindings.</p>	<p>Electricity etc.</p>
<p><b>Human capital requirements</b></p>	<p>Governance oversight; leadership; networks; research; writing; technical skills and experience in managing public assets.</p>	<p>E-communication applications, webinar experience, e-publishing experience.</p>	<p>Booking and administration.</p>	<p>Project management, risk management, planning, community engagement, whole of government financial management, asset management. Legal advisor. Financial adviser. Technical asset management advisor.</p>	<p>Presentation skills. Inter-personal communication skills. Engagement skills. Language skills. Conceptual clarity. Leadership.</p>	<p>Competence in: Information management; Data definition. Cross-professional communication. Attention to detail. Ability to adapt quickly to changing findings. Database development and management. Students preparing annotated bibliography.</p>
<p><b>Costing assumptions:</b></p>	<p>All Steering Committee meetings held by Skype or at EAROPH Congress/Regional Workshops before ExCo meeting.</p>	<p>GoToWebinar, Adobe Prof Publishing Suite</p>	<p>Based on cost of TA Support for APEC Fiscal and Financial Initiatives funded by ADB x 1.12 for price rises since 2009</p>	<p>3 x F/T @ \$22,500 per mth, 4 @ 3/12 @ \$22,500 per mth + 20% for recruitment costs</p>	<p>Travel to Manila, New York, Washington, Canberra, Bangkok for two people</p>	<p>EAROPH Management Fee = 10% Contingencies = 10%</p> <p>Information manager, software to catalogue and store data in database, subscriptions to databases, libraries and website set up and running costs.</p>

Project team: 1x  
manager, 2 x  
F/T experts, 4  
P/T experts.  
EAROPH  
Chapters  
sponsor the  
project in each  
country.  
EAROPH  
member  
networks include  
public asset  
managers.  
EAROPH  
members use  
skype routinely.

## 6.7 Application of Project Outputs

EAROPH member governments will be able to demonstrate that their national policies, reports, methodologies and tools take into consideration the work done by international bodies.

The outputs will also be available to contribute to the management of public assets by governments in other regions of the world.

## 7 Project Risks

This Section identifies the project risks and proposes these be managed through APIGAM championing ways governments can systemically manage public assets.

### 7.1 Project Risks

The general risks identified for the project are recorded in the detailed logframes in appendix B. They are:

Risk	Management of Risk
<p><b>Goal:</b></p> <p>National sovereignty is breached.</p> <p>Practical local methods that ensure sustainable outcomes are crowded out by general donor and international assessment criteria. Short-term political pressure for excess profits does irreparable damage to public assets. Failure to keep the guidelines practical and effective.</p> <p><b>Strategy 1:</b></p> <p>Strategies: Anomalies are not quickly responded to.</p> <p>Outputs:</p> <p>Reliance on one person.</p>	<p>APIGAM provides examples of good partnering between donors and developing country governments. Examples and case studies acknowledge sustainable outcomes in practice. It champions ways governments systemically manage public assets.</p> <p>APIGAM Training courses and seminars are designed to achieve the goal and super goal. APIGAM makes sustainable management of public assets trendy.</p> <p>KC trains a team to train others through APIGAM.</p>

Risk	Management of Risk
Over-invest in technical aspect of designing a multi-lingual and multi-asset wiki.	Feasibility study.
<b>Strategy 2:</b>	
The impact of natural disasters creates fatigue in EAROPH member country citizens.	APIGAM creates a regional network of senior people who educate decision-makers to deliver long-term sustainable outcomes. APIGAM courses share practical methods and useful case studies among regional country governments.
Regional political allegiances require smaller countries to compromise their sustainability in favour of bigger country objectives.	APIGAM independently assesses public asset stocks, flows and management of all EAROPH member countries against the one set of assessment criteria. Anomalous results and criteria are highlighted for discussion and amendment.
Outputs:	
Working partnership will donors and multilateral banks are not formed.	EAROPH Secretary General and Vice Presidents build on current relationships in governments to identify participants in the project.
Governments give a low priority to their management of public assets. EAROPH does not create working partnership with member governments.	Build on internationally accepted criteria, and test criteria in a range of countries in the EAROPH region. Forge strong partnerships with country governments. Continue only in countries that can provide long-term
Tendency for one country's practices to dominate the conversation. Inability of the project team to capture and reflect each country's practices for managing public assets. The practices among countries differ so much that any one set of criteria becomes impractical.	Case studies to be conducted from first principles in each country. Findings to be presented to country governments for their use. Emphasis is on practical assessment that will assist governments to manage public
Country experiences with previous PEFA assessments affect their motivation for	Team to work collaboratively with the PEFA secretariat. Draft criteria to be

Risk	Management of Risk
collaborating on the project. Timeframes for review of the PEFA framework is so long that the project can issue only suggested draft assessment criteria.	approved by each government prior to presentation for consideration at an international workshop.
<b>Strategy 3:</b>	
High standards are traded off against short-term gain for a few people. The management of public assets is corrupted.	APIGAM monitors budgetary impacts on regional public assets and shares good examples through annual awards.
Outputs:	
Area is crowded by GFC and other short-term issues and impact on asset management is given low priority.	Case studies contain unintended consequences for fiscal management on poor long-term management of assets.
Short-term practices will merely be extended over 30 - 100 years and make the list nonsensical.	Build on successful practices of many governments in managing the long-term sustainability of public assets.
<b>Strategy 4:</b>	
Unequal allocation of resources results in the undermining of social capital.	APIGAM makes sustainable practices fashionable and assists national leaders (public, private, voluntary and households) to lead by example.
Outputs:	
Partnerships fail to be successfully established. Key people are busy in other work, and unable to participate.	Senior EAROPH members build relationships with other senior members of partner organisations. Partner organisations ' staff participate.
<b>Strategy 5:</b>	
Private sector leaders cease their contribution to sustainability begun at the Earth	APIGAM to partner with the UN agencies and other international bodies (e.g. Global Reporting Initiative) to celebrate gains made in the private sector as

Risk	Management of Risk
Summit in Rio in 1992.	well as the public sector.
Outputs:	
Funds are not available to plan, manage and report on the workshops. Governments do not host the workshops. Governments no longer have officials with long-term outlook and experience who can participate.	Project budgeting is carefully completed. Partners know their input when support is sought. EAROPH Vice Presidents carefully select participants who are able and willing to participate and who have bipartisan support
Governments no longer have officials with long-term outlook and experience who can participate. The project does not receive bipartisan support. Lessons selected are emotionally charged and they cannot be used to	A number of case studies are selected to ensure key lessons can be illustrated and choices can be made that maintain government support.
<b>Strategy 6:</b>	
New technologies build food security for one region and their use results in the reduced vitality of the planet.	APIGAM independently advocates for the testing and reporting on the impact of new technologies in public assets.
Outputs:	
Groups, whose interests have been subsumed in specific instances to the larger benefit, use the workshop for political purposes.	Workshops are planned to address many issues of managing public assets, not just engagement practices in decision-making.
One cultural approach is taken as "the norm". The various approaches being successfully applied in member countries are not reflected in the case studies.	National governments host the workshop. The criteria are based on principles and observable indicators, not on processes.
APIGAM is not able to meet the demand.	APIGAM licences national governments to present training using APIGAM materials under supervision of one APIGAM trainer.
<b>Strategy 7:</b>	

Risk	Management of Risk
Decisions that already take into consideration the long-term impacts may be rejected through an emphasis on process that is, as yet, inadequate.	APIGAM trains regional government staff in full costing of budgets. IT shares successful methodologies among EAROPH member countries.
Outputs:	
The discussion paper is skewed to ICT systems and applications. Many successful methods that do not use ICT are being lost.	ICT is clearly identified as a tool. The overall objectives, and the various approaches to successfully fully cost projects are included. Historical case studies of major projects are included.
Training material is technical, rather than practical. It focuses on "what is technically desired" rather than "what can be done" given the time and staff available.	Experienced senior officials lead the training.
Experienced people with good knowledge of the practical skills applied to make good decisions are not involved in preparing the training materials.	Experienced senior officials lead the training.
Approaches that ignore the full costs are used. The non-economic costs are ignored.	Experienced senior officials lead the training.
<p><b>General project risks</b></p> <p>Exchange rate fluctuates and makes the fulfilment of contracts impossible.</p>	Contracts to be in the same currency as that provided by donors. Requests to donors to assist with management of the implications of exchange rate fluctuations.

## 7.2 Risk Management Strategy

The overall strategy is for APIGAM to be established to champion systemic management of public assets throughout the EAROPH region.

APIGAM will then be in a position to provide examples of good partnering between donors and developing country governments. Examples and case studies acknowledge sustainable outcomes in practice. APIGAM champions ways governments systemically manage public assets.

## 8 Project Enablers

This Section identifies the practical steps to establishing the project to pursue its strategies.

### 8.1 Project Approval

The Executive Committee of EAROPH is being asked to approve that the project proceed under EAROPH's auspices. It will be asked to establish a Project Steering Committee with representatives of all EAROPH member governments who wish to participate in the project.

### 8.2 Funding and Support

Funding will be sought from the World Bank, the Asian Development Bank and the various national donors throughout the region.

### 8.3 Project team

The team will consist of representatives of key countries in the region and report to the Team Leader who, in turn, will report to the Secretary General in a way that she sees fit.

### 8.4 Project Methodology

The conceptual framework will form the basis of workshops throughout the region. A record of the various definitions used among various professions will be maintained. An annotated bibliography of sources will be prepared to support the conceptual framework development.

Workshops will be held in member countries to test the conceptual framework and to develop pro forma reports that could be shared across the region.

The outputs will be presented to the EAROPH Congress in Korea in 2012 and EAROPH regional workshops

### **8.5 “Buy-in” and Participation**

Most governments in the region are struggling with the challenge of managing public assets. EAROPH members are actively involved in helping governments to meet these challenges. This project will be a cost-effective and inclusive way to develop a framework that suits the needs of the countries of the region.

### **8.6 Relationships and networks**

The project will rely on EAROPH member relationships and networks and work through EAROPH to extend its relationships and networks as needed.

## 9 Roles and Responsibilities

This Section records the key stakeholders and project governance and oversight, participating jurisdictions and independent quality assurance processes.

### 9.1 Key Stakeholders

There are many government, civil society, multilateral and international stakeholders. Professional bodies, Asset Management bodies and academic institutions as well as non-government organisations (NGOs) have a key stake in the governance of public assets.

There are national bodies, regional bodies and international bodies representative of the views of members and with their own stake in the management of public assets. The list below is, as yet, incomplete. The project team has identified many stakeholders and believe the list is, as yet, incomplete. The project team will formally identify stakeholders and engage them appropriately in the development of the project's outputs.

There are a number of bodies, large and small, with a stake in the management of public assets. The aim is to garner the support of the major international stakeholders, for example, UNDP, IFAC, International Council of Museums (ICOM) and MA to ensure the project reflects the various international standards being applied to the management of public assets.

#### 9.1.1 National Bodies

Professional organisations: Accountants, Architects, Bankers, Economists, Engineers, Environmental Scientists, Facilities Managers, Landscape Architects, Infrastructure Managers, Planners, Surveyors

Governance organisations: Legislatures, National Sub-National and Local Governments, Inter-Governmental Bodies, Supreme Audit Institutions

Public Bodies: Museums, Libraries, Galleries, Procurement Oversight Bodies, Defence Materiel organisations, Social Housing Bodies, Land Management Specialists, Health and Education Departments, Treasuries, Central Banks, Issuing bodies.

Civil Society Bodies: National UN Habitat and related NGOs.

Private Entities: Asset designers, builders, maintenance organisations, developers and distributors, Central Bank

### **9.1.2 Regional Bodies**

Professional Organisations: Confederation of Asian and Pacific Accountants (CAPA), ASEAN Federation of Accountants (AFA), PMI Asia Pacific, Pacific Islands Land Professionals Association

Governance organizations: Association of South-East Asian Nations (ASEAN), Commonwealth Local Government Forum (CLGF), Commonwealth Parliamentary Association, Asian Organization of Supreme Audit Institutions (ASOSAI), Pacific Association of Supreme Audit Institutions (PASAI)

Public Representative Bodies: ICOM – Asia Pacific, Asian Planning Schools Association

NGOs: World Vision, Red Cross

Donors and Private Sector Entities: Asian Development Bank

### **9.1.3 International Bodies**

Professions: IFAC, Union of Architects (UOA), International Association of Engineers, International Engineering Alliance, Global Forum on Maintenance and Asset Management (GFMAM), ISOCARP, Global Planners Network (GPN), Planners sans frontières (France HQ), Planners sans frontières (Canada HQ), Global Planning Schools Network, Project Management Institute (PMI), International Organization for Standardization (ISO).

Governance: Public Expenditure and Financial Accountability, International Union of Local Authorities (IULA), United Nations, UN Habitat, EU Commission on Environment, Commission on Sustainable Development

Public Representative Bodies: International Council of Museums (Paris),

Civil Society Bodies: World Wildlife Fund, Agenda 21

Donors and Private Sector Entities: International Finance Corporation (World Bank Group)

International Standards: International Financial Reporting Standards (IFRS), IPSAS, ISO Standards for Business, Government and Society.

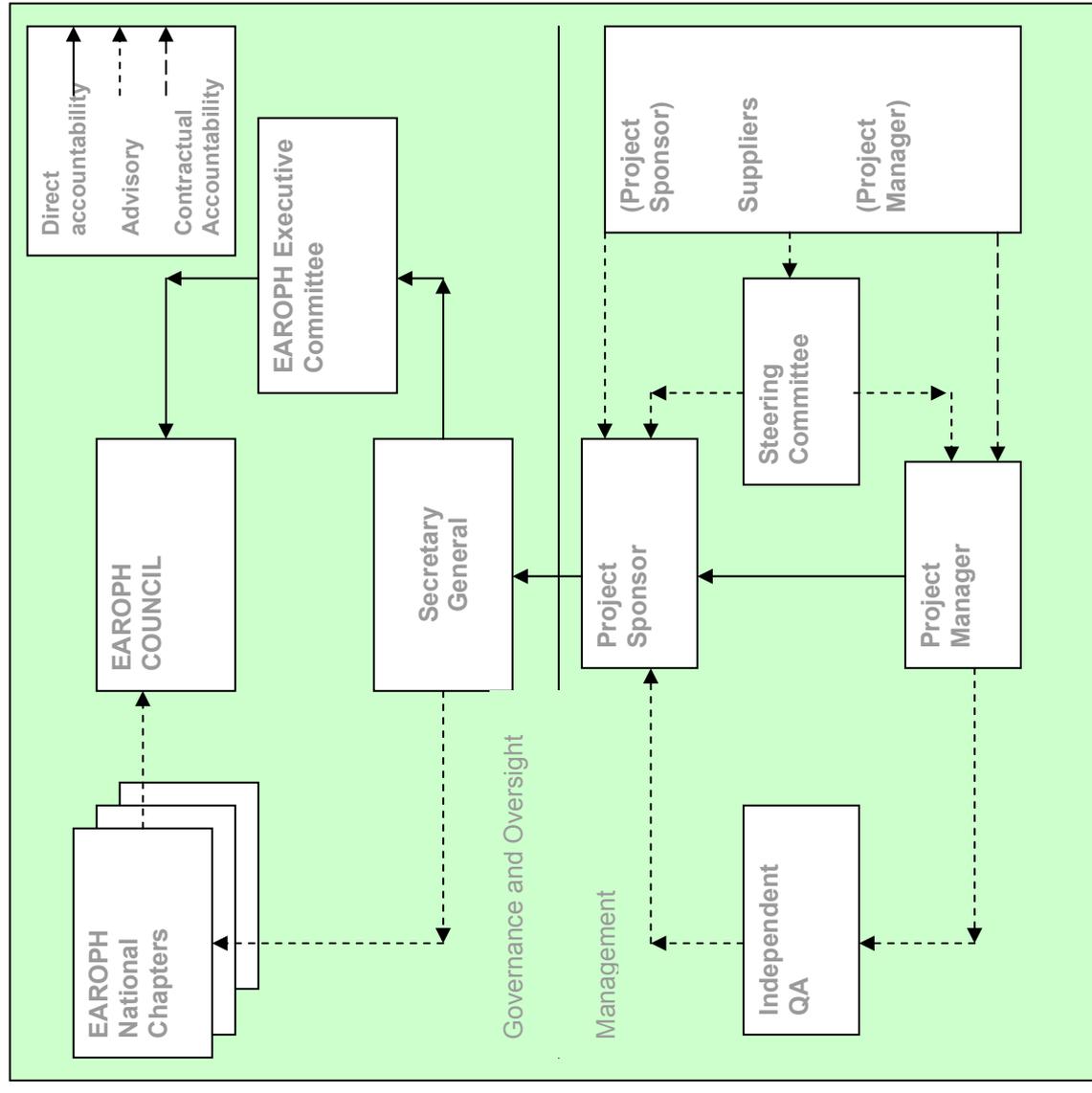
## **9.2 Governance and Oversight**

The key roles and responsibilities of the project are shown in the table below.

The responsibility for the project rests with the EAROPH Council. The management of the project will be overseen by the Executive Committee. National chapters will advise the Council and work with the Secretary General to monitor and evaluate the project.

The Secretary General is responsible for the oversight of the project.

**Figure 6: Project Governance Structure**



### **9.2.1 Project Sponsor**

Mr. K.C.Leong President of APIGAM and Vice President of EAROPH is the project sponsor.

### **9.2.2 Project Donors**

Donors from whom funding will be sought include, but are not limited to:

- World Bank
- Asian Development Bank
- AusAID
- Governments of Japan, Malaysia, Brunei, Indonesia, China
- Pacific Regional Infrastructure Faculty

### **9.2.3 Project Steering Committee**

The project steering committee is to drive the project and will consist of senior EAROPH members with a good knowledge of the challenges being faced by governments in the region in managing public assets. The members are to be EAROPH members nominated by the Executive Committee.

In the preparation of the project brief, EAROPH Australia's Executive Committee has exercised oversight. The EAROPH President presides over the EAROPH Australia ExCo when the project manager, who is also President of EAROPH Australia, reports. Team members in the initial stage, were drawn from EAROPH members within Australia.

### **9.2.4 Project Manager**

Mrs. Kerry McGovern, the Vice President Australia is managing the project.

### **9.2.5 Project Team**

Once the project is approved, and funding sought, team members will be recruited to ensure the team represent the key professions and countries within the region.

It is anticipated that the team will consist members with experience in whole-of-government management of public assets from the following:

1. Australia and New Zealand
2. Japan
3. Malaysia
4. Brunei
5. Pacific Island Forum members
6. People's Republic of China
7. India
8. Other

### **9.3 Participating Jurisdictions and Bodies**

All EAROPH member Countries, from Turkey to the Pacific Islands will be invited to participate in the project.

### **9.4 Independent Quality Assurance**

*Quality assurance of documents released for comment.*

- Documents to be distributed to all team members and nominated stakeholders.
- Cover sheet to indicate response by each person to the document.
- All issues raised to be discussed with stakeholder by the person nominated to manage the relationship, and, for those raised by team members, within a team meeting.
- Consensus to be sought. Where consensus is not obtained, each person to document the issue – and their preferred position. This documentation to go to President of APIGAM for consideration.
- Preferred position to be put by the Project Manager, through the Project Sponsor, to the Secretary General for the consideration of the Secretariat for forwarding to the EAROPH ExCo. Documentation of all preferred positions to be attached to the board papers.
- The Executive Committee decision is final.

*Quality assurance of documents released for use by governments.*

- ExCo decisions re documents to be distributed to EAROPH Council members for their consideration.
- EAROPH Council members to decide to release documents.
- Communication strategy to inform the methodology to release documents.
- Quality assurance methodology above to be followed to deal with feedback from governments, as stakeholders.

*Formal approvals through EAROPH.*

EAROPH ExCo decisions to be passed to the EAROPH Council for approval for release and loading onto the website.

## 10 Project Timetable

This Section contains the proposed project timetable.

The project will be delivered in two parts:

- 1) Project Brief and Project Plan to be presented to the EAROPH ExCo in Brunei in November, 2011, and
- 2) Plan to be funded, staffed and
  - Phase 1 outputs delivered for presentation at the EAROPH Congress in South Korea in November, 2012.
  - Phase 2 will be delivered to the 2013 EAROPH ExCo, and
  - Phase 3 to the 2014 EAROPH Congress.

**Table 1 Project Timetable**

#	Deliverable/Milestones	Status	% Completed	Planned Completion Date*	Actual Completion Date
1	Rationale for project	C	100	4 November 2010	4 November 2010
2	Present to EAROPH Congress	C	100	4 November 2010	4 November 2010
3	Identify key stakeholders	C	100	31 Dec 2010	31 March 2011
4	Engage key stakeholders	OS	40	31 March 2012	Ongoing
5	Problem analysis	OS	20	30 April 2012	Ongoing
6	Scope	C	100	14 May 2011	1 August 2011
7	Stakeholder analysis	OS	20	30 May 2012	Ongoing
8	Logical framework	BS	100	30 September 2011	14 October 2011
9	Draft budget	C	100	30 September 2011	30 September 2011

#	Deliverable/Milestones	Status	% Completed	Planned Completion Date*	Actual Completion Date
10	Key stakeholders and potential funders	OS	35	30 November 2011	
11	Final draft project plan to EAROPH ExCo	OS	100	15 October 2011	20 <sup>th</sup> October 2011
12	Project Plan endorsed by EAROPH ExCo for implementation	NS		8 November, 2011	
13	EAROPH National chapters nominate their level of engagement with the project.	NS		17 December 2011	
14	Formal approaches to donors and governments for funding. MOUs signed with partner organisations and governments.	NS		31 January 2012	
15	Project team nominated	NS		31 March 2012	
16	Conceptual Framework - KC's book published.	OS	80	30 April 2012	
17	Asset Management Wiki design signed off	NS		31 May 2012	
18	Discussion paper on public assets in EAROPH region drafted.	NS		30 June 2012	
19	Workshops on management of public assets held in five countries.	NS		31 July 2012	
20	Findings of workshops documented	NS		31 August 2012	
21	Asset Management Wiki populated with known tools	NS		30 September 2012	
22	Report to EAROPH Congress distributed to ExCo members.	NS		14 October 2012	
23	Implementation of part 1 of Phase 2 as per approved plan	NS		November, 2012	
24	Phase 2 - part 2	NS		November, 2013	
25	Phase 2 - part 3	NS		November, 2014	

**Status Legend:** OS = On Schedule AS = Ahead of Schedule BS = Behind Schedule C = Completed CN = Cancelled NS = Not Started

# Appendix A

## Definitions

Term	Definition	Source
Natural ecosystems	<p>Natural ecosystems deliver a range of benefits for people. These benefits are known as ecosystem services. The Millennium Ecosystem Assessment (MA) typology of ecosystem services identified four main categories:</p> <ol style="list-style-type: none"> <li>1. Provisioning services – The products obtained from ecosystems, including genetic resources, food and fiber, and fresh water.</li> <li>2. Regulating services – The benefits obtained from the regulation of ecosystem processes, including the regulation of climate, water, and some human diseases.</li> <li>3. Cultural services – The nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experience, including, knowledge systems, social relations, and aesthetic values.</li> <li>4. Supporting services – Ecosystem services that are necessary for the production of all other ecosystem services. Examples include biomass production, production of atmospheric oxygen, soil formation and retention, nutrient cycling, water cycling, and provisioning of habitat.</li> </ol>	United Nations Environment Programme (UNEP) - <a href="http://bit.ly/pMAWVod">http://bit.ly/pMAWVod</a>
Social Capital	<p>Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Increasing evidence shows that social cohesion is critical for societies to prosper economically and for development to be sustainable. Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together.</p> <p>Social capital consists of the stock of active connections among people: the trust, mutual understanding and shared values and behaviours that bind the members of human networks and communities and make cooperative action possible.</p>	World Bank <a href="http://bit.ly/b5n7UN">http://bit.ly/b5n7UN</a>
		UNESCO (2006) <a href="http://bit.ly/qtEvaH">http://bit.ly/qtEvaH</a>

Human Capital	<p>Schooling, a computer training course, expenditures of medical care and lectures on the virtues of punctuality and honesty also are capital. That is because they raise earnings, improve health or add to a person's good habits over much of his lifetime.</p> <p>Therefore, economists regard expenditures on education, training, medical care and so on as investments in human capital. They are called human capital because people cannot be separated from their knowledge, skills, health or values in the way they can be separated from their financial and physical asset (Gary Becker)</p>	UNESCO (2006) <a href="http://bit.ly/qtEvaH">http://bit.ly/qtEvaH</a>
	The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being.	OECD (2001) <a href="http://bit.ly/mQK3O2">http://bit.ly/mQK3O2</a>
Infrastructure	Infrastructure helps determine the success of manufacturing and agricultural activities. Investments in water, sanitation, energy, housing, and transport also improve lives and help reduce poverty. And new information and communication technologies promote growth, improve delivery of health and other services, expand the reach of education, and support social and cultural advances.	World Bank ( <a href="http://bit.ly/bjJGNu">http://bit.ly/bjJGNu</a>
	Infrastructure has a central role in the development agenda and is a major contributor to growth, poverty reduction and achievement of the MDGs.	IMF (2005) <a href="http://bit.ly/nefy0K">http://bit.ly/nefy0K</a>
Operating assets	Include both physical and intangible assets. They are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity.	IFAC IPSAS Glossary of defined terms (2011)

## Appendix B

# Annotated Bibliography

## Annotated Bibliography and References

The following is an example of the type of bibliography to be prepared during the project. There are many references held that have yet to be carefully annotated. Once completed and signed off through the peer review / quality assurance process, this bibliography can be made available through the wiki on the EAROPH / APIGAM websites.

### 10.1.1 Human Capital

1. <http://bit.ly/jO1DTy> - Hui Wei, 2008, Measuring Human Capital Flows for Australia: A Lifetime Labour Income Approach, Economic Analysis and Reporting Branch, ABS Research Paper 1351.0.55.023.  
This paper presents an experimental accumulation account for human capital for Australia. The proposed accounting system draws on the Jorgenson–Fraumeni human capital accounting system, with a few modifications. This study focuses on human capital formed through investment in post-school education and working experience.  
To separate the positive effect on lifetime labour incomes of ageing, this study makes use of wage differentials arising from age at the early stage of working life to estimate investment in working experience. To derive measures of net human capital formation, this study decomposes total depreciation into three elements: depreciation on education capital, depreciation on experience capital and ageing of base level capital. The contribution of the size of working age population to the growth of human capital stock is treated as other changes.  
Using the full Census data from 1981 to 2001, this study estimates the changes in the number of persons in each sex/education/age cohort over the Census years. Combining these estimates of demographic changes with per capita measures of human capital flows paints a broad picture of the sources of the growth of human capital stock over this twenty years period. The most important empirical findings from this accounting exercise are: (1) education has become an increasingly important driver of the growth of human capital stock, and this is especially noticeable for women; (2) the impact of population ageing (depreciation) on the human capital stock has trended upwards strongly since the first half of the 1990s, and has significantly slowed down the growth of human capital stock.

### 10.1.2 Environmental Assets

2. <http://bit.ly/mdaSor> - ABS, 2010, Australia's Environment Issues and Trends 2010: Special Issue: Climate Change, 4613.0  
Australia's Environment: Issues and Trends 2010 is the 5th edition in a series that presents a broad selection of environmental statistics and information on topical environmental issues. By drawing on a wide range of ABS statistics and statistics from other official sources, "Australia's Environment: Issues and Trends" describes major aspects of Australia's environment and how these are changing over time. It is designed to assist and encourage informed decision-making, and to meet the information needs of a general readership.

The material presented in Australia's Environment: Issues and Trends is organised into two main parts. The first part explores an issue of major environmental concern, and the issue chosen for the 2010 edition is climate change. The second part covers major trends of relevance to the environment, included under five broad headings: population and urban, human activities, atmosphere, water and landscape. The opportunity has been taken to use the most recently available data to update analysis of topics examined in previous editions. The publication does not aim to present data on all environmental issues and other topics may be covered in future editions. The production of this publication would not have been possible without the contributions of numerous organisations and individuals. The ABS is grateful for this help.

The ABS welcomes readers' suggestions on how the publication could be improved. To comment or to ask for more information, please contact the Director of the Centre of Environment and Energy Statistics.

Brian Pink, Australian Statistician

3. <http://bit.ly/mmmMUJU> Patt, A., Schroter, D., Klein, R., de la Vega-Leinert, A.C., 2010. Assessing Vulnerability to Global Environmental Change Making Research Useful for Adaptation Decision Making and Policy, Earthscan.

Assessing the vulnerability of human populations to global environmental change, particularly climate change, is now the main imperative of research and international action. However, much of the research into vulnerability is not designed to feed directly into decision making and policy, creating a gap between the knowledge created by researchers and what is required by decision makers.

This book seeks to rectify this problem and bridge the gap. It discusses vulnerability as the central theme and brings together many different applications from disaster studies, climate change impact studies and several other fields and provides the most comprehensive synthesis of definitions, theories, formalisation and applications to date, illustrated with examples from different disciplines, regions and periods, and from local through to regional, national and international levels. Case study topics cover sea level rise, vulnerability to changes in ecosystem services, assessing the vulnerability of human health and 'double exposure' to climate change and trade liberalisation amongst other issues. Research outcomes stress that science-policy dialogues must be transparent to be effective and concentrate on a mutual understanding of the concepts used. A key research finding is that the most useful information for decision makers is that which shows the separate causes and drivers of vulnerability, rather than presenting vulnerability in an aggregated form. The book concludes with a unifying framework for analysing integrated methodologies of vulnerability assessment and guiding how research and policy can be linked to reduce vulnerability.

4. <http://hvrd.me/jWtBz> Schroter, Dagmar. 2005. "Vulnerability to Changes in Ecosystem Services." CID Graduate Student and Postdoctoral Fellow Working Paper No. 10. Cambridge, MA: Science, Environment and Development Group, Center for International Development, Harvard University. Humans are an inseparable part of their environment through their dependence on ecosystems and the services ecosystems provide. The mismanagement of ecosystem services increases human vulnerability. Examples like the Irish Potato Famine (1845-1850), the Canadian dustbowl (1920s), or the current Californian pollution crisis show how past unsustainable use of ecosystem services lead to human harm. Projections of ecosystem service supply under global change alert us to potential negative trends in the future. Using these examples the author discusses three general reasons for unsustainable management of ecosystem services, and explores how environmental science can facilitate sustainable management. Environmental scientists alone cannot provide the information and the tools that are needed to lessen the vulnerability of a region. However, they can make essential contributions by identifying ecosystem services, and providing the best current understanding of the dynamics of complex ecosystems, including human management. Sustainable management of ecosystem services requires a

sustained active dialogue between a free media, an alert and well-informed public, candid scientists and policy makers – in other words, it requires abundant social, economic and environmental resources.

Keywords: vulnerability, sustainability, ecosystem services, historical case study, scenarios, stakeholder dialogue, environmental science, sustainable management

### **10.1.3 Diagnosis**

5. <http://hvrd.me/iAGzck> - Alan Berger, Case Brown, Carolyn Kousky, and Richard Zeckhauser, 2010, The Challenge of Degraded Environments: How Common Biases Impair Effective Policy, Risk Analysis.

Economic activity can damage natural systems and reduce the flow of ecosystem services. The harms can be substantial, as our case studies vividly illustrate. Most degraded landscapes have at least some potential to be reclaimed. However, uncertainty plagues decision making regarding degradation and reclamation, in relation to the extent of the damage, the success of reclamation, and how exposure will change in the future. We examine how a range of observed decision biases can lead to far-from-optimal policies regarding how much degradation to allow and when, as well as how and how much to reclaim degraded sites. Despite our focus on degraded landscapes, we believe these are generic biases present in a wide range of risk situations. Our three case studies show these biases at work. The first two studies are of mining operations in the United States and Canada, and the third is of climate change.

## **Methodology**

### **10.1.4 International Standards and Handbooks**

6. <http://bit.ly/kl8xg6> - ISAE 3410, Jan 2011, Assurance Engagements on Greenhouse Gas Statements, Proposed International Standard on Assurance Engagements.

This memorandum provides background to, and an explanation of, the proposed International Standard on Assurance Engagements (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements. The International Auditing and Assurance Standards Board (IAASB) approved the proposed ISAE in December 2010 for exposure.

7. <http://bit.ly/khayQ7> - UNSD, 2007, System for Environmental-Economic Accounting for Water, Final Draft.

The System of Environmental and Economic Accounting for Water (SEEAW) has been prepared by the United Nations Statistics Division (UNSD) in collaboration with the London Group on Environmental Accounting, and in particular with its Sub-group on Water Accounting.

8. <http://bit.ly/9mcGEI> - GRI, 2000-2006, Sustainability Reporting Guidelines, Version 3.

The goal of sustainable development is to “meet the needs of the present without compromising the ability of future generations to meet their own needs.” As key forces in society, organizations of all kinds have an important role to play in achieving this goal. Yet in this era of unprecedented economic growth, achieving this goal can seem more of an aspiration than a reality. As economies globalize, new opportunities to generate prosperity and quality of life are arising through trade, knowledge-sharing, and access to technology. However, these opportunities are not always available for an ever-increasing human population, and are accompanied by new risks to the stability of the environment. Statistics demonstrating positive improvements in the lives of many people around the world are counter-balanced by alarming information about the state of the environment and the continuing burden of poverty and hunger on millions of people.

This contrast creates one of the most pressing dilemmas for the 21st century.

One of the key challenges of sustainable development is that it demands new and innovative choices and ways of thinking. While developments in knowledge and technology are contributing to economic development, they also have the potential to help resolve the risks and threats to the sustainability of our social relations, environment, and economies. New knowledge and innovations in technology, management, and public policy are challenging organizations to make new choices in the way their operations, products, services, and activities impact the earth, people, and economies.

The urgency and magnitude of the risks and threats to our collective sustainability, alongside increasing choice and opportunities, will make transparency about

economic, environmental, and social impacts a fundamental component in effective stakeholder relations, investment decisions, and other market relations. To

support this expectation, and to communicate clearly and openly about sustainability, a globally shared framework of concepts, consistent language, and metrics is required. It is the Global Reporting Initiative's (GRI) mission to fulfil this need by providing a trusted and credible framework for sustainability reporting that can be used by organizations of any size, sector, or location.

Transparency about the sustainability of organizational activities is of interest to a diverse range of stakeholders, including business, labor, non-governmental organizations, investors, accountancy, and others. This is why GRI has relied on the collaboration of a large network of experts from all of these stakeholder groups in consensus-seeking consultations. These consultations, together with practical experience, have continuously improved the Reporting Framework since GRI's founding in 1997. This multi-stakeholder approach to learning has given the Reporting Framework the widespread credibility it enjoys with a range of stakeholder groups.

9. <http://bit.ly/m003WD> - UNSD, 2003, Handbook of National Accounting, Integrated Environmental and Economic Accounting.

The revision of the United Nations Handbook of National Accounting - Integrated Environmental and Economic Accounting (commonly referred to as SEEA), presented in this volume has been undertaken under the joint responsibility of the United Nations, the European Commission, the International Monetary Fund, the Organisation for Economic Co-operation and Development and the World Bank. Much of the work was done by the London Group on Environmental and Natural Resources Accounting, through a review process that started in 1998.

The handbook provides a common framework for economic and environmental information, permitting a consistent analysis of the contribution of the environment to the economy and of the impact of the economy on the environment. It is intended to meet the needs of policy makers by providing indicators and descriptive

statistics to monitor the interaction between the economy and the environment as well as serving as a tool for strategic planning and policy analysis to identify more sustainable development paths.

The handbook covers complex and diverse topics some of which are still subject to debate. Whenever possible, it reports best practices, and where a variety of approaches exists, their advantages and disadvantages are presented. Even though a single recommendation could not always be given, the handbook represents a major step towards harmonized concepts and definitions, and will provide the basis for the further development of standards.

The revision process has required numerous meetings over several years in which experts in environmental accounting throughout the world have participated. The revised SEEA owes much to their collective advice and wisdom. At the same time, the revision has been a major exercise in cooperation between national and international statistical agencies. It may serve as a model for future collaborative work on the development of improved statistical systems and standards. The revised SEEA is intended for use by both national and international agencies for compiling environmental accounts reflecting their information needs and priorities. The publication of handbook was endorsed by the Statistical Commission of the United Nations. It is jointly published by the five organizations.

10. <http://intosai.connexcc-hosting.net/blueline/upload/1implperfaude.pdf> INTOSAI Implementation for Performance Auditing: Standards and Guidelines for performance auditing based on INTOSAI's Auditing Standards and practical experience 2004

The INTOSAI Performance Auditing Implementation guidelines are the result of the joint efforts of the members of the INTOSAI Auditing Standards Committee, which has included the SAIS of twenty-eight countries chaired by Sweden. The document has to be update as practise progress. It is not a normative or a technical documents, or a handbook, but it contains a number of guidelines and other information with practical implications that take into consideration the special premises and features of performance auditing. Even though these guidelines reflect current best practices, they will not fully be applicable to all INTOSAI members, due to different traditions and mandates. It is up to each member to determine how to best apply and utilize these guidelines.

The purpose of the document is to:

- Describe the features and principles of performance auditing.
- Assist SAI performance auditors in managing and conducting performance audits efficiently and effectively.
- Provide a basis for good performance audit practices.
- Establish a framework for the further development of performance audit methodology and professional development.

The guidelines are in five parts: 1. What is performance auditing?, 2. Government auditing principles applied to performance auditing, 3. Field standards and guidance: Initiating and planning the performance audit, 4. Field standards and guidance: Conducting the performance audit, 5. Reporting standards and guidance: Presenting the performance audit result.

### **10.1.5 Application of Theories in Practice, including case studies**

11. [www.martinbutcher.com](http://www.martinbutcher.com) Butcher, M (2010) "Joining the dots. Linkages between Action Research, Complexity and Sustainable cities".

This paper investigates the limitations to cities as systems that can improve themselves. It notes:

“ A recent letter writer to the Guardian Weekly (March 2010) expressed a vision for the future that many of it’s readers (educated, technically proficient, inquisitive) would probably be happy enough to adopt.  
“There’s general agreement on the destination: a planet where all sentient beings can grow, work, play, create, eat, shit and sleep in perpetuity and safety” .  
The writer then stated that the big problem is that we don’t know how to get there. As we live in an age where if you don’t have a plan - you plan to fail, this is not a good situation. A significant problem is that the vision lies externally to any specific product or service, and our dominant level of consciousness can only conceptualise planning to achieve sophisticated products and services.

The paper acknowledges that, to achieve the desired vision requires a different level of problem solving to that which we are used to. To both explain this and illustrate what this might mean in reality, the paper uses the contemporary city that we live in (as imagined as that great jumble of products from shacks to railways to high rise offices) as a focus. This focus will be as both illustration of the kind of change required, and a platform to explore how built form itself can more effectively be used to achieve the desired vision.

The paper identifies some of the inhibiting factors to achieving the vision. It then looks at the issue of complexity and how that links with Spiral Dynamics and Action Research. Finally it provides some strategies to achieve the desired outcomes with some practical examples the author has used or is aware of.

### **10.1.6 Tools**

12. <http://bit.ly/iSFetl> Asset Management Maturity Model developed by Oarisk of the UK.

The maturity model includes eleven aspects of asset management: i) policy, strategy and objectives, ii) Ownership and responsibilities, iii) Leadership and communication, iv) Training and Developing, v) Business Planning, vi) Operate and Maintain, vii) Health and Safety, viii) Risk management, ix) Asset Design, x) Continuous improvement and xi) information management. Client maturity is mapped for each aspect against one of five levels of maturity: 1. Chaotic, 2. Applying, 3. Embedding, 4. Integrating and 5 Optimising.

13. [http://www.bobwilliams.co.nz/Systems\\_Resources\\_files/Systems\\_Intro.pdf](http://www.bobwilliams.co.nz/Systems_Resources_files/Systems_Intro.pdf) - Williams, Bob Using Systems Concepts to Navigate Complexity: The Systems Field is Big.....

14. <http://www.continuitycentral.com/feature0220.htm> Salter, John “A Risk Management Self Assessment Framework”

This paper puts forward considerations about what characterizes good emergency planning and how it might be assessed. What assessment criteria make up a necessary and sufficient set? It calls for plans to evolve from a “needs basis” and to be generated through a process involving those who have an interest. It proposes that “two significant influences on any entity’s emergency planning capabilities, be it a business, an organization, a city or a region, are in its structure and

its culture.” It proposes we consider the paradigm within which we are currently working and, by setting it alongside known paradigms of previous cultures, consider that it may be limited and rooted in the past, not the entity’s needs to address current and future challenges.

The paper includes an emergency self assessment framework of five steps:

1. Establish context
2. Analyze and prioritize risks
3. Develop Intervention Programs
4. Communication and Warning
5. Train, Exercise and Evaluate.

The website has a link to an Excel-based tool that supports the methodology and framework. The report is in the form of a spider graph. This provides a baseline from which to assess further development in the entity’s capacity to manage its risks.

#### **10.1.7 Reports**

15. <http://bit.ly/iOxgLD> - 2009, Main Survey Report on the CAPA Environmental Accounting / CSR Survey.

It is an established fact that the increasingly serious and complex environmental and social issues in today’s world require the strict attention and concern of businesses and investment communities. Apart from the challenges this poses, an opportunity exists for professional accountants to make a contribution in solving these issues through the promotion of environmental accounting and disclosure, as well as enhancing the credibility of such information.

In response, the Confederation of Asian and Pacific Accountants (“CAPA”) Executive Committee, decided to conduct a survey focusing on member bodies’ activities in these areas.

The main objective of this survey is to collect extensive information on notable practices by the CAPA member bodies, in order to support the activities of professional accountants related to EA/CSR issues by providing such information to all member bodies. Doing so will furthermore, facilitate CAPA member bodies’ activities.

16. <http://bit.ly/me3oLE> - Jon Hall, 2005, Beyond GDP: Measures of Economic, Social and Environmental Progress, Analytical Services Branch, ABS Research Paper 1351.0.55.007

There has been a growing public interest in assessing whether life in Australia is getting better, and whether our quality of life can be sustained into the future. While Gross Domestic Product (GDP) is an important measure of progress, there are many who believe that it should be assessed in conjunction with other measures of progress.

The Australian Bureau of Statistics (ABS) provides a rich array of statistics relevant to assessing progress and in 2002 developed a major new publication, Measuring Australia’s Progress (cat. no. 1370.0). Measuring Australia’s Progress (MAP) was built around 15 headline indicators of national progress that span Australia’s economy, society and environment, and allowed readers to make their own assessment of whether life in Australia is getting better. The second issue — now called Measures of Australia’s Progress — was released in April 2004. Updated summary indicators were released to the ABS website in April 2005 (cat. no. 1383.0.55.001).

This paper was presented at the December 2004 ANZSEE/CofFEE conference (A Future that Works — Economics, Employment and the Environment) held in Newcastle, Australia. The paper is being posted to the ABS web site to enable users to identify and access conference material presented by ABS officers. The paper was also included in the 2005 ABS Year Book.

### **10.1.8 Case Studies**

17. China's Grand Canal (for example)

## Appendix C

# Logframes

	Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<b>Super Goal</b>	Humans add to the vitality of the planet, its biodiversity and its resources.					
<b>Goal</b>	Sustainable development of the social, built and natural environment.	Sustainability is a criterion against which budgets and aid projects are evaluated. Guidelines and assessment criteria applied in monitoring and evaluation of government funded and aid funded projects.	Donor Evaluation Departments reports. Donor country reports. Annual budgets of EAROPH Member country governments.	Donors' funding criteria and aid funding significantly influence results of public assets in developing countries. EAROPH Member countries are committed to maintain their nation's economic, human, social and environmental integrity.	National sovereignty is breached. Practical local methods that ensure sustainable outcomes are crowded out by general donor and international assessment criteria. Short-term political pressure for excess profits does irreparable damage to public assets. Failure to keep the guidelines practical and effective.	APIGAM provides examples of good partnering between donors and developing country governments. Examples and case studies acknowledge sustainable outcomes in practice. It champions ways governments systemically manage public assets.

	Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<b>Strategy 1</b>	1. Comprehensive framework and clear guidelines for the management of the life-time of public assets.	Governments adopt the framework. Completed assessments. Approved government policies.	Government announcements. Annual public asset assessment published.	Those responsible for implementing the framework keep in mind the goal and super goal and are guided by them. Central agencies in EAROPH member countries mandate the use of the framework and guidelines.	Anomalies are not quickly responded to.	APIGAM Training courses and seminars are designed to achieve the goal and super goal. APIGAM makes sustainable management of public assets trendy.
<b>Outputs 1</b>	1.1. Conceptual framework document  1.2 Compendium/ wiki of knowledge and tools, gathered from around the world and subdivided in accordance with different cultural, economic and physical environments.	Document published.  Wiki online	Tabled at EAROPH ExCo meeting.  Internet	K.C. 's book meets the needs of a conceptual framework  Technically possible.	Reliance on one person.  Over-invest in technical aspect of designing a multi-lingual and multi-asset wiki.	KC trains a team to train others through APIGAM.  Feasibility study.

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management	
<p><b>Strategies</b></p> <p><b>2</b></p>	<p>2A. Governments develop and use practical tools to systematically manage public assets.</p>	<p>Public sector governance structures executives to take into consideration the impact on public assets when making decisions.</p>	<p>Executive Council / Cabinet instructions to government departments. Briefing formats. Briefing papers submitted.</p>	<p>Long-term sustainability of national economy, human capital, the environment and social capital is supported by the majority of each EAROPH member nation's citizens.</p>	<p>The impact of natural disasters creates fatigue in EAROPH member country citizens.</p>	<p>APIGAM creates a regional network of senior people who educate decision-makers to deliver long-term sustainable outcomes. APIGAM courses share practical methods and useful case studies among regional country governments.</p>
<p>2B. International aid projects result in outcomes that are sustainable.</p>	<p>Donor country strategies and funding approval processes consider the impact of donor activity on public assets.</p>	<p>Country Strategies and Donor funding criteria published on website of donors.</p>	<p>Long-term sustainability of developing country economies, human capital, environment and social capital is the goal of each donor body from each developed country.</p>	<p>Regional political allegiances require smaller countries to compromise their sustainability in favour of bigger country objectives.</p>	<p>APIGAM independently assesses public asset stocks, flows and management of all EAROPH member countries against the one set of assessment criteria. Anomalous results and criteria are highlighted for discussion and amendment.</p>	

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<b>Outputs 2</b>	<p>2.1. Discussion paper on the impact of donor policies and bank lending policies on sustainable development.</p> <p>2.2. A public asset governance assessment framework.</p>	<p>EAROPH website. EAROPH library.</p> <p>EAROPH website and on national chapter websites. EAROPH library.</p>	<p>Donors and banks will partner with EAROPH to build their ability to contribute to sustainable projects.</p> <p>EAROPH member country governments will contribute their procedures for managing public assets at the whole of government level to the project.</p>	<p>Working partnership will donors and multilateral banks are not formed.</p> <p>Governments give a low priority to their management of public assets. EAROPH does not create working partnership with member governments.</p>	<p>EAROPH Secretary General and Vice Presidents build on current relationships in governments to identify participants in the project.</p> <p>Build on internationally accepted criteria, and test criteria in a range of countries in the EAROPH region. Forge strong partnerships with country governments. Continue only in countries that can provide long-term support for the project. Work with permanent public servants.</p>

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<p>2.3 A public asset assessment framework.</p>	<p>Criteria against which governments can assess their country's management of public assets are tested in at least five EAROPH member countries. Workshop held to guide participants through testing the framework.</p>	<p>Workshop files and report on EAROPH website. EAROPH library. Report on workshop and assessment.</p>	<p>There are simple questions governments need answered when providing oversight to the management of public assets. E.g. what stock do we have? how much does it cost to maintain it? How much will it cost to maintain planned capital projects? What is the impact on social capital of the proposed project? These can form the basis of general criteria which ministers and heads of departments can use in monitoring public assets. Information on public assets is readily available on ICT systems and it can be readily collated and reported.</p>	<p>Tendency for one country's practices to dominate the conversation. Inability of the project team to capture and reflect each country's practices for managing public assets. The practices among countries differ so much that any one set of criteria becomes impractical.</p>	<p>Case studies to be conducted from first principles in each country. Findings to be presented to country governments for their use. Emphasis is on practical assessment that will assist governments to manage public assets.</p>
<p>2.4 Asset section for PEFA framework.</p>	<p>Criteria on management of public assets to complement the current PEFA assessment criteria. World bank accepted asset assessment criteria as part of the PEFA framework.</p>	<p>EAROPH website. EAROPH library. PEFA website. Correspondence from PEFA Secretariat. Workshops with PEFA staff.</p>	<p>There are sufficient governments reporting assets and liabilities to warrant adding criteria on assets to the PEFA framework.</p>	<p>Country experiences with previous PEFA assessments affect their motivation for collaborating on the project. Timeframes for review of the</p>	<p>Team to work collaboratively with the PEFA secretariat. Draft criteria to be approved by each government prior to presentation for consideration at an international</p>

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<p><b>Strategy 3</b></p> <p>3. Long-term budgeting for public assets.</p>	<p>Annual and Medium Term Budget frameworks include the full cost in terms of flows and stocks of public assets.</p>	<p>Annual and Medium Term Budget Papers.</p>	<p>Government set the standard for the management of all assets in the nation by building capacity in the public sector.</p>	<p>PEFA framework is so long that the project can issue only suggested draft assessment criteria.</p>	<p>workshop.</p>
<p><b>Output 3</b></p> <p>3.1. Discussion paper identifying the fiscal policy impacts on asset management.</p>	<p>Literature review is completed. Leading bureaucrats in countries that have considered the impacts are identified and contribute to the paper. Case studies on anomalies included. Findings presented to international conferences. Publication on EAROPH website and in paper.</p>	<p>EAROPH Website Websites of partner organisations, e.g. IMF.</p>	<p>Medium Term Budget Framework methodology supports good asset management. Practices previously routinely applied when governments used only cash budgets, can be captured and documented..</p>	<p>Area is crowded by GFC and other short-term issues and impact on asset management is given low priority.</p>	<p>APIGAM monitors budgetary impacts on regional public assets and shares good examples through annual awards.</p> <p>Case studies contain unintended consequences for fiscal management on poor long-term management of assets.</p>

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<p>3.2. Checklist to identify budget allocation priorities against long-term sustainability criteria.</p>	<p>List is tested in each of five EAROPH member countries. Current practices reflected in the checklist.</p>	<p>Source material for workshops in each of the five countries.</p>	<p>Current practices already take into consideration the impact of annual budget allocation on long-term budget commitment. Conventions already take into consideration the long-term implications of government budget decisions.</p>	<p>Short-term practices will merely be extended over 30 - 100 years and make the list nonsensical.</p>	<p>Build on successful practices of many governments in managing the long-term sustainability of public assets.</p>
<p><b>Strategy 4</b> 4. Macroeconomic policies drive good asset management.</p>	<p>World State of Public Assets report. IMF / UN / OECD report on nations success in management the economy, human capital, the environment and social capital. Supreme Audit Institutions audit and report on impacts on the environment.</p>	<p>General Assembly minutes. Published reports. INTOSAI standards.</p>	<p>People prefer to build a vibrant environment than to consume for social advantage.</p>	<p>Unequal allocation of resources results in the undermining of social capital.</p>	<p>APIGAM makes sustainable practices fashionable and assists national leaders (public, private, voluntary and households) to lead by example.</p>

	Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<b>Outputs 4</b>	<p>4.1. Discussion paper identifying the impact of macroeconomics on asset management.</p>	<p>Literature review published. Partner organisations collaborate in issuing the discussion paper to their specialist staff. Records of meetings of partner organisations. Paper presented to international conferences.</p>	<p>EAROPH website. Online meeting schedules among partner organisations.</p>	<p>Builds on current concerns and work of partner organisations. Macroeconomic policies are adapted to achieve outcomes that sustain public assets.</p>	<p>Partnerships fail to be successfully established. Key people are busy in other work, and unable to participate.</p>	<p>Senior EAROPH members build relationships with other senior members of partner organisations. Partner organisations' staff participate. APiGAM to partner with the UN agencies and other international bodies (e.g. Global Reporting Initiative) to celebrate gains made in the private sector as well as the public sector.</p>
<b>Strategy 5</b>	<p>5. Governance structures ensure externalities (environmental, social, cultural, economic) are managed.</p>	<p>Briefing documents include consideration of external impacts on recommendations to executive government. The executive is structured to enable decision-makers to sustain public assets.</p>	<p>Annual reports. Briefing documents. Governance structure of the executive published.</p>	<p>Public sector decisions affect the sustainability of public assets.</p>	<p>Private sector leaders cease their contribution to sustainability begun at the Earth Summit in Rio in 1992.</p>	

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<p><b>Output 5</b></p> <p>5.1. Regional workshops on governance structures to share experience about the management of public assets.</p> <p>5.2. Document lessons learnt.</p>	<p>Workshops are held in at least five countries. They are co-hosted by the partner government and EAROPH and other international organisations. Reports of discussions provide validation / leadership to discussion papers. See 2.1 and 6.1</p> <p>Case studies, including the paradoxes addressed in managing public assets, are collected from and validated by senior government officials and academics.</p>	<p>Notices sent to participants. Formal correspondence between EAROPH and partners. Workshop evaluation reports.</p> <p>Published case studies on EAROPH website.</p>	<p>EAROPH Member country governments participate in the project and provide leadership in hosting the workshops. Governance structures affect decisions.</p> <p>Senior officials and academics are available and willing to share their experiences in managing public assets during the last thirty years or more. The project has sufficient credibility that governments support the case studies and seek to learn from real experiences.</p>	<p>Funds are not available to plan, manage and report on the workshops. Governments do not host the workshops. Governments no longer have officials with long-term outlook and experience who can participate.</p> <p>Governments no longer have officials with long-term outlook and experience who can participate.</p> <p>Senior officials and academics are available and willing to share their experiences in managing public assets during the last thirty years or more. The project has sufficient credibility that governments support the case studies and seek to learn from real experiences.</p>	<p>Project budgeting is carefully completed. Partners know their input when support is sought. EAROPH Vice Presidents carefully select participants who are able and willing to participate and who have bipartisan support in their country.</p> <p>A number of case studies are selected to ensure key lessons can be illustrated and choices can be made that maintain government support.</p>

	Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<b>Strategy 6</b>	6. There is quality consultation with all affected by decisions of executive bodies.	Social capital stocks are high. Human capital stocks are growing.	Annual reports on Human Capital and Social Capital by UNDP and other international bodies.	Humans value the biodiversity and vitality of the environment sufficiently to reverse its degradation.	New technologies build food security for one region and their use results in the reduced vitality of the planet.	APIGAM independently advocates for the testing and reporting on the impact of new technologies in public assets.
<b>Outputs 6</b>	6.1. Regional workshop and consequent documentation on methods of quality engagement practice.	Workshops are held in at least five countries. They are co-hosted by the partner government and EAROPH and other international organisations. Reports of discussions provide validation / leadership to discussion papers. See 2.1 and 5.1	Notices sent to participants. Formal correspondence between EAROPH and partners. Workshop evaluation reports submitted to Steering Committee. In SC minutes and records.	There is a positive correlation between decision-making that considers information from all parties affected by the decision and public assets that are valued by the community and government.	Groups, whose interests have been subsumed in specific instances to the larger benefit, use the workshop for political purposes.	Workshops are planned to address many issues of managing public assets, not just engagement practices in decision-making.

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
<p>6.2. Workshop on regional case studies on participation in decision making.</p>	<p>Case studies record the participation methods applied. Participants identify lessons learnt for on-going application. Workshop includes material of evaluation of participation in public asset management. Workshops are held in at least three countries. At least three approaches the produce successful participation in practice of public asset management are identified.</p>	<p>Workshop evaluation reports presented to Steering Committee. In SC minutes and records.</p>	<p>There are many examples of good decision-making regarding public assets that illustrates participation. The impact of participation, while its form differs across cultures, results in public assets that are valued by the community and government.</p>	<p>One cultural approach is taken as "the norm". The various approaches being successfully applied in member countries are not reflected in the case studies.</p>	<p>National governments host the workshop. The criteria are based on principles and observable indicators, not on processes.</p>
<p>6.3. Training in engagement processes and techniques.</p>	<p>APIGAM provides training in community engagement in the management of public assets.</p>	<p>Training materials signed off by SC in SC files. Record of evaluation of training in SC files.</p>	<p>APIGAM works closely with EAROPH Member Country governments to provide training to government officials.</p>	<p>APIGAM is not able to meet the demand.</p>	<p>APIGAM licences national governments to present training using APIGAM materials under supervision of one APIGAM trainer.</p>
<p>7. Capacity is available to estimate the full cost and benefits of public assets.</p>	<p>Executive briefing papers contain the full cost of the decision proposed - financial impact, built asset impact, human capital impact, environmental impact and social impact.</p>	<p>Executive minutes.</p>	<p>Practical methodologies for estimating the impacts of decisions on public assets are available. The staff to apply them are employed in key positions. Decision makers seek information on the full cost of decisions before giving approval. Civil society monitors</p>	<p>Decisions that already take into consideration the long-term impacts may be rejected through an emphasis on process that is, as yet, inadequate.</p>	<p>APIGAM trains regional government staff in full costing of budgets. IT shares successful methodologies among EAROPH member countries.</p>

## Strategy 7

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management	
<h2>Outputs 7</h2>	<p>7.1. Discussion paper on practical methodologies for full costing of capital projects.</p> <p>7.2 Training in best practice full costing.</p>	<p>Literature review. Gaps in generally accepted costing methodologies identified. Case studies the illustrate the costs of inadequate costings prepared. Tools that provide good proxies for missing information identified. Emphasis on practical ways government overcome inadequacies of methodology and information.</p> <p>APIGAM courses on full costing held in at least three EAROPH member countries, or for officials from at least three countries.</p>	<p>EAROPH website. Partner organisation websites.</p>	<p>executive decisions and provides supportive and practical feedback.</p> <p>The human settlements expect decision-makers to take into consideration more information and impacts on public assets when making decisions. Decision-makers are supported by staff who routinely fully cost proposals.</p> <p>Practices that explicitly consider the full costs, environmental, human resources, social capital as well as economic, will result in public assets that are highly valued by the community and governments.</p>	<p>The discussion paper is skewed to ICT systems and applications. Many successful methods that do not use ICT are being lost.</p> <p>Training material is technical, rather than practical. It focuses on "what is technically desired" rather than "what can be done" given the time and staff available.</p>	<p>ICT is clearly identified as a tool. The overall objectives, and the various approaches to successfully fully cost projects are included. Historical case studies of major projects are included.</p> <p>Experienced senior officials lead the training.</p>

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions	Risks	Risk Management
7.3. Costing methodologies for non-economic costs developed.	Ways non-economic costs are practically considered are identified. Lessons from pre-ICT governments included. Gaps between ICT capability, and ability of humans to make decisions illustrated. Conventions, as well as technical approaches, considered.	Discussion paper in 7.1	Governments have for centuries successfully used approaches that take into consideration the full costs of public assets. ICT availability has overshadowed other successful non-technical approaches.	Experienced people with good knowledge of the practical skills applied to make good decisions are not involved in preparing the training materials.	Experienced senior officials lead the training.
7.4. Methodologies for disclosing assumptions of costs: economic and non-economic.	Current executive government procedures mined for successful ways to best disclose the full cost of decisions. Holistic approaches documented. Literature review.	Discussion paper in 7.1	Simple approaches are being used and can be documented.	Approaches that ignore the full costs are used. The non-economic costs are ignored.	Experienced senior officials lead the training.

INPUTS	Total						
<p><b>Inputs - to achieve all outputs.</b></p>	<p>Personnel: Steering Committee; Project Team; Sponsors for venues in EAROPH countries; Network to managers of public assets in EAROPH countries; ICT application mentors.</p>	<p>ICT: Electronic communication; Webinar technology; E-Publishing application</p>	<p>Travel and accommodation: Team to five workshops in each of EAROPH countries. Participants to workshops.</p>	<p>Consulting fees: Team members - three for 12 months, four for three months each.</p>	<p>Marketing: EAROPH networks, travel to donor offices for presentations, presentation at key conferences throughout the region, webinars</p>	<p>Information management: Information manager, database, annotated bibliography, website.</p>	<p>\$2,557,500 +. \$ 511,500 = \$3,069,000</p>
<p><b>Cash contribution</b></p>	<p>\$500 for internet access.</p>	<p>\$5000/yr for webinar, \$6000/yr for Adobe Prof Publishing Suite</p>	<p>\$896,000</p>	<p>\$1.3m</p>	<p>\$66,500</p>	<p>Software \$22,500 Mgr \$ .24m, website \$10,000, Subscriptions \$56,000</p>	<p>\$2,557,500 +. \$ 511,500 = \$3,069,000</p>
<p><b>Built Asset contribution</b></p>	<p>ICT applications for skype meetings. Team members provide own computers.</p>	<p>Computers and internet connection.</p>	<p>Hotels or billeted accommodation venues. Airlines and associated travel infrastructure.</p>	<p>Administration and supervision. Team building and motivating.</p>	<p>Venues provided by stakeholders.</p>	<p>Computers and database applications, website application and server backup. Venue for meetings with stakeholders.</p>	
<p><b>Social Capital contribution</b></p>	<p>EAROPH Regional Chapters and members and their colleagues who will support the project.</p>	<p>E-communication networks through EAROPH members.</p>	<p>EAROPH networks.</p>	<p>Family support. Employer support. EAROPH engagement. Donor support. Government support. UN and OECD and related agency support.</p>	<p>Financial, Asset, Environmental, Social Capital, Human Capital networks in the EAROPH regional.</p>	<p>National thesauri of each EAROPH member country. National and Regional Information Management / Library networks. Webmaster networks. Google interface.</p>	

In-Kind  
Contribution

<p><b>Environment contribution</b></p>	<p>Electricity, internet, computers, headsets.</p>	<p>Electricity, etc.</p>	<p>Water, Food, materials for eating, sleeping and transportation.</p>	<p>Electricity, etc.</p>	<p>Electricity, etc. Paper and related bindings.</p>	<p>Electricity etc.</p>
<p><b>Human capital requirements</b></p>	<p>Governance oversight; leadership; networks; research; writing; technical skills and experience in managing public assets.</p>	<p>E-communication applications, webinar experience, e-publishing experience.</p>	<p>Booking and administration.</p>	<p>Project management, risk management, planning, community engagement, whole of government financial management, asset management. Legal advisor. Financial adviser. Technical asset management advisor.</p>	<p>Presentation skills. Inter-personal communication skills. Language skills. Conceptual clarity. Leadership.</p>	<p>Competence in: Information management; Data definition. Cross-professional communication. Attention to detail. Ability to adapt quickly to changing findings. Database development and management. Students preparing annotated bibliography.</p>
<p><b>Costing assumptions:</b></p>	<p>All Steering Committee meetings held by Skype or at EAROPH Congress/Regional Workshops before ExCo meeting.  Project team: 1x manager, 2 x F/T experts, 4 P/T experts.</p>	<p>GoToWebinar, Adobe Prof Publishing Suite</p>	<p>Based on cost of TA Support for APEC Fiscal and Financial Initiatives funded by ADB x 1.12 for price rises since 2009</p>	<p>3 x F/T @ \$22,500 per mth, 4 @ 3/12 @ \$22,500 per mth + 20% for recruitment costs</p>	<p>Travel to Manila, New York, Washington, Canberra, Bangkok for two people</p>	<p>Information manager, software to catalogue and store data in database, subscriptions to databases, libraries and website set up and running costs.</p> <p>EAROPH Management Fee = 10% Contingencies = 10%</p>

EAROPH Chapters sponsor the project in each country.  
EAROPH member networks include public asset managers.  
EAROPH members use skype routinely.