出國報告(出國類別：其他-短期訓練)

參加亞太農業研究機構聯盟(APAARI)舉辦之「計畫之規劃、
監督與評估對成果產出及影響-能力建構培養班」

目　錄

摘　　要

　　本培訓班係亞太農業研究機構聯盟(APAARI)與澳洲國際農業研究所(ACIAR)、全球農業研究論壇(GFAR)及馬來西亞農業科技研究院(MARDI)共同辦理，邀請會員國負責規劃與評估農業科技發展計畫之資深農業計畫、管理、政策等主管，針對計畫影響評估與農業相關資訊管理運用進行培訓，目的在提升參訓人員對計畫之規劃、監督與評估相關工具與方法之認識與運用，未來運用於負責之職務，並對相關政策制定有所增進。

　　本次培訓計有 18 個國家、30 位代表參加，除主辦國馬來西亞外，菲律賓、印尼及越南均派 3 人參加，可看出該等國強化農業研發成果運用之企圖心。在培訓期間，發覺 ACIAR 發展出來的影響評估方法，非常重視研發成果在產業化推動其各利害關係人(Stakeholder)之需求，以及何種科學資訊和方式來與利害關係人溝通(附件 3)，此部分是我國在執行科技計畫較少思考的部分，未來在大型科技計畫規劃時，可將各階段利害關係人之需求納入思考，依計畫之成果適時將訊息傳遞至相關利害關係人，以利研發成果順利推廣產業運用。

參加亞太農業研究機構聯盟(APAARI)舉辦之「計畫之規劃、監督與評估對成果產出及影響-能力建構培養班」出國報告

壹、緣起及目的

　　亞太農業研究機構聯盟(APAARI)本(104)年8月3-7日於馬來西亞吉隆坡舉辦之「計畫之規劃、監督與評估對成果產出及影響-能力建構培訓班(Planning,Monitoring and Evaluation towards Measuring Outcomes and Impacts-Capacity Development Training Workshop)」活動，係APAARI與澳洲國際農業研究所(ACIAR)、全球農業研究論壇(GFAR)及馬來西亞農業科技研究院(MARDI)共同辦理，針對計畫影響評估與農業相關資訊管理運用等辦理培訓課程，目的在提升參訓人員對計畫之規劃、監督與評估相關工具與方法之認識及運用，冀有助於參訓人員應用所學於職務，並對未來相關政策制定有所影響。

　　該培訓班參訓對象為資深農業計畫、管理、政策等主管，負責規劃與評估農業科技發展計畫，為社會或生物研究人員、計畫企劃或管理者等均可；參訓人員需準備相關計畫案例於受訓時提出討論，並於課程結束時完成該案例之影響路經與評估方法等；盼參訓人員返國後將所學應用於其任職單位。為強化我國參與國際組織活動，並藉由參與其他國際研究單位辦理活動，增進我與其他國家農業交流擴增國際農業合作網絡，提升我對計畫評估相關工具與方法之認識與應用，薦送科技處陳簡任技正兼科長瑞榮參訓。

貳、出國期間及課程

一、出國期間：104年8月2-8日

二、前往地區：馬來西亞農業研究與發展研究所訓練中心

三、參訓學員：

　　本次參訓學員來自斯里蘭卡、巴基斯坦、印度、巴布新幾內亞、印尼、尼泊爾、越南、布丹、新喀里多尼亞、中國、薩摩亞、斐濟、柬埔寨、中華民國、孟加拉、菲律賓、泰國、馬

來西亞等 18 個國家，共計 30 位代表(附件 1) 。

四、培訓講師及課程：

(一)講師

　　1.Dr. Deborah Templeton：ACIAR 影響評估專案經理，是本培訓的主要講師，她在 ACIAR 和國際水稻研究所(IRRI)任職期間，針對組織內專案團隊辦理多次影響評估課程，另在澳大利亞、柬埔寨、中國、埃塞俄比亞、斐濟、印度、尼泊爾、巴基斯坦、巴布亞紐幾內亞、菲律賓、南非和越南等國執行類似之訓練班。

　　2.Dr.Ajit Maru：GFAR 資深農業官員，他專長於各項農業知識，特別是將農業資訊有效利用在農糧管理，以及資通訊科技類在農業中的使用。

(二)培訓課程：課程表(附件 2) 。

參、參訓情形：

一、開幕儀式

　　　　本次訓練係由 APAARI、ACIAR、GFAR 及 MARDI 共同辦理，各單位均相當重視本次訓練，8 月 3 日上午進行開幕儀式，除 APAARI 秘書長 Dr.Raghunath Ghodake、泰國辦公室主任 Dr.Alongkorn Kornthong 及 MARDI 院長 Dr.Sharif Haron 出席外，還特別邀請到馬來西亞農業部副部長 Dato' Mohd Arif ab Rahman 針對「計畫規劃、監督與評估的重要性」進行演說，完成開幕典禮相關儀式即進行全體合影，開始進入訓練課程。

照片 1：開訓典禮　　　照片 2:馬國農業部副部長演講　　　照片 3:全體合影

二、課前暖身活動

　　8 月 3 日上午完成開訓儀式後，為使受訓學員相互認識，以利後續課程的討論，在正式訓練課程開始前，特別安排暖身活動，由同學報數的順序將受訓學員分為四組，進行乒乓球投準比賽，在簡述遊戲規則後，所有學員即認真的投入該比賽活動。我被分到第二組，跟 Dr.MD.Abdul Awal(Bangladesh)、Eva Elago-Carusos(Philippine) 及 Mrs.Lim Sophaon Thida (Combodia)等八人同組，非常幸運地，本組在該比賽榮獲兩個獎項，第一是比賽冠軍(得分最高)；另一項是團隊合作獎，講師及評審人員一致認為本組最像一個團隊。

照片 4：暖身活動-乒乓球投準比賽計分

照片 5：本組為最具團隊合作精神

三、訓練課程紀實

　　（一）小組成員

　　　　　本次「計畫之規劃、監督與評估對成果產生及影響」課程係採分組討論方式進行，從 8 月 4-7 日四天的課程中，均由各分組針對選定案例進行討論，於課程結束時完成該案例之影響路徑與評估方法。故 8 月 4 日上午在所有學員簡單的自我介紹後即進行分組，本人被分到第五組，本組成員分別為 Mr.Paula Tuione(Fiji)、Mr.Kailash Pradhan (Bhutan)、Mr.Ruey-long Chen(Taiwan) 及 Ms.Shanti Hafsanita(Indonesia)4 位，並推舉工作經歷最資深的 Paula 擔任小組長。

照片 6：小組成員以及輔導員 Nay(Thailand)

　　（二）案例選定

　　　　　在討論本組採用的案例時，本組唯一之女性組員 Shanti 提出該國在海藻養殖有做過類似之規劃及評估的計畫，且組長及本人均對海洋漁業有所涉略，故很快的達成共識以海藻養殖為案例，雖然有一位成員的國家沒有海洋，但他也認為在全球氣候快速變遷下，糧食安全是各國重視的議題，藻類養殖符合未來的發展趨勢，故本組選定之討論組題為「Improve Seaweed Culture to Enhance Livelyhood of Seaweed Farmer in Indonesia」。

（三）分組討論

　　各分組依其選定案例，開始依照 ACIAR 所發展出「Orientating, Designing, and Evaluating Projects to Make a Difference」（附件 3），在老師的指導下，逐步進行討論，每完成一個階段都會進行各組的分享，透過交流及討論，讓受訓學員更了解如何訂定影響路徑及評估方式。ACIAR 所發展出的評估方法，非常重視各階段利害關係人的需求，用何種科學資訊及何種方式與利害關係人溝通，這是在課堂上經常要討論的議題，本小組組長為資深官員，故能快速整合大家的意見，建立各階段的討論共識。

照片 7-9:講師 Dr.Deborah Templeton 及 Dr. Ajit Maru 上課及學員分享情形
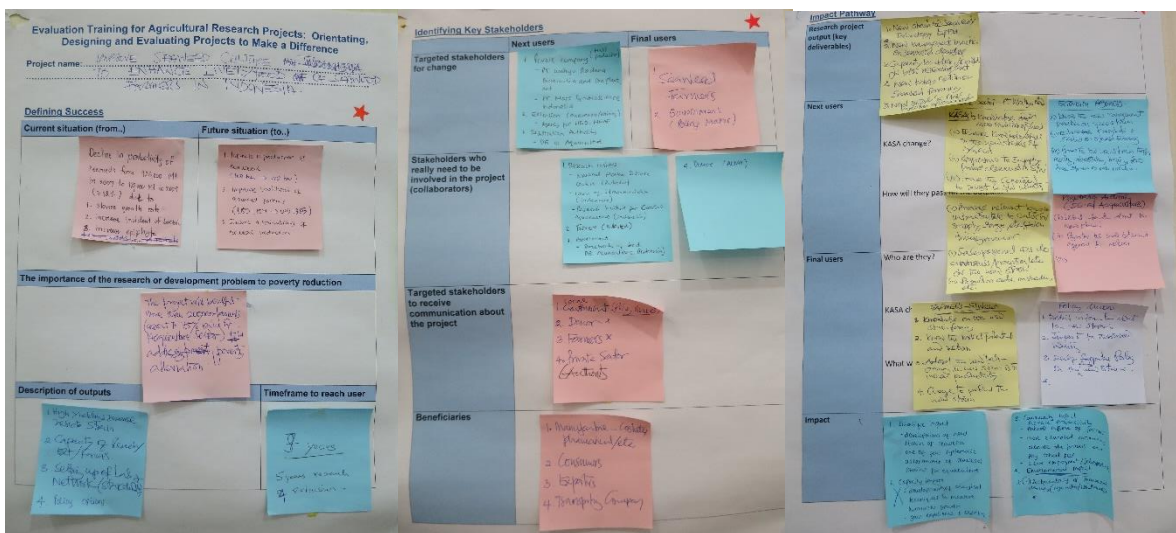
照片 10:本組針對印尼海藻養殖所討論出之計畫規劃、監督與評估

（四）頒發結業證書

　　本次訓練採分組討論，共同完成案例的計畫目標、執行內容及評估方法等之規劃，沒有針對個別學員進行評分，故8月7日下午完成所有課程後，即進行頒發結業證書的儀式，由 APAARI 秘書長及 MARDI 院長頒發證書，所有 30 位參訓學員均獲得結業證書。

照片 11：受訓結束獲頒證書

照片 12：結訓證書

肆、心得與建議：

　　　本次參訓心得及建議如下：

一、亞太農業研究機構聯盟(APAARI)為聯合國農糧組織(FAO)下之機構，我國為該聯盟會員國之一，並未受中華人民共合國之阻撓仍保有會員資格，因此我國積極參與該聯盟之活動。該聯盟近來在亞太地區加強業務推展，我國可多方參與並與該組織合作，以提升我國之國際地位。

二、本次培訓計有 18 個國家、30 位代表參加，除主辦國馬來西亞外，菲律賓、印尼及越南均派 3 人參加，可看出東南亞國家強化農業發展之企圖心。我國參與該等活動,受限於國外差旅費，大部僅派一人參加，交流及傳承易受限，建議未來透過計畫型式於學校或法人組織長期培訓國際合作專業人才，強化國際聯結及資訊蒐集，以彌補公務預算國外差旅費所造成的限制。

三、在培訓期間，發覺 ACIAR 發展出來的影響評估方法，非常重視研發成果在產業化推動其各利害關係人(Stakeholder)之需求，以及何種科學資訊和方式來與利害關係人溝通，此部分是我國在執行科技計畫較少思考的部分，未來在大型科技計畫規劃時，可將各階段利害關係人之需求納入思考，依計畫之成果適時將訊息傳遞至相關利害關係人，以利研發成果順利推廣產業運用。

伍、附件：

No.	Participant	Institution/Agency	Country
LIST OF PARTICIPANTS			
1.	Prof. AR Ariyaratne	Director/ Secretary Sri Lanka Council for Africultural Research Policy (CARP)	Sri Lanka
2.	Dr. Ahmad Bakhsh Ilahi Bakhsh	Director General Planning and Development Vision Pakistan Agricultural Research Council (PARC)	Pakistan
3.	Dr. Amit Kumar Vasisht	Assistant Director General Planning Monitoring Indian Council of Agricultural Research	India
4.	Dr. Macquin Kilagi Maino	Agriculture Department PNG University of Technology	Papua New Guinea
5.	Dr. Md. Abdul Awal	Chief Scientific Officer Planning and Evaluation Division Bangladesh Agricultural Research Council (BARC)	Bangladesh
6.	Dr. Minnath Paudel	Director for planning and Coordination Nepal Agricultural Research Council (NARC)	Nepal
7.	Dr. Nguyen Cong Thanh	Head of Department of Industrial Crops (DIC) Institute of Agricultural Science for Southern Vietnam (IAS)	Vietnam
8.	Dr. Toyanath Acharya	Head of Technology Screening and Monitering Division Ministry of Agriculture and Forest (MoAF)	Bhutan
9.	Dr. Laurent L'huillier	Director General InstitutAgronomique Neo-Caledonien	New Caledonia
10.	Dr. Peter Gendua	Project Leader of Rice and Grain National Agricultural Research Institute (NARI)	Papua New Guinea

11.	Dr. Shen Yuying	College of Pastoral Agriculture Science and Technology (CPAST) Lanzhou University	China
12.	Mr. John Keyonce Tauli Lee Hang	Planning Officer Policy Planning and Communication Division Ministry of Agriculture and Fisheries	Samoa
13.	Mr. Paula Tuione	Principal Agriculture Officer Project and Budget Ministry of Primary Industries	Fiji
14.	Mrs. Lim Sophaon Thida	Socioeconomist Cambodian Agricultural Research and Development Institute (CARDI)	Cambodia
15.	Mr. Ruey-long Chen	Senior Specialist and Chief of Technology Service Section Department of Science and Technology, Council of Agriculture	Taiwan
16.	Dr. Abdur Razzaque	KGF	Bangladesh
17.	Mr. Pham Vu Bao	Agri Science Institute for Southern Coastal Central of VN (ASSIOV)	Vietnam
18.	Dr. Luu Ngoc Quyen	Northern Mountainous Agriculture and Forestry Science Institute (NOFMASI)	Vietnam
19.	Dr. Wilfredo Uy	Director for Reasearch, Institute of Fisheries Research and Development	Philippines
20.	Evy Elago-Carusos	Project Manager ACIAR-Mindanao Agricultural Extension Project	Philippines
21.	Mr. Komin Wirojwattanakul	Director of the Postharvest and Processing Research and Development Division Department of Agriculture	Thailand
22.	Mr. Zulkefli Malik	Deputy Director of Strategic Planning and Policy Management Centre, MARDI	Malaysia
23.	Mr. Syahrin Suhaimee	Deputy Director of Economic and Social Science Research Centre, MARDI	Malaysia

24.	Mr. Hairazi Rahim @ Abdul Rahim	Research Officer of Economic and Social Science Research Centre, MARDI	Malaysia
25.	Ms. Shanti Hafsanita	IAARD Jl. Ragunan 29, Pasar Minggu Jakarta	Indonesia
26.	Dr. Teguh Wikan	IAARD Jl. Ragunan 29, Pasar Minggu Jakarta	Indonesia
27	Dr. Lilian Bondoc	Assistant Director/Supervising Science, Policy Coordination and Monitoring Division (PCMD)	Philippines
28	Dr. Kailash Pradhan	Specialist Council for RNR Research of Bhutan (CoRRB)	Bhutan
29.	Dr. Abhaykumar Y. Desai	Junagadh University	India
30.	Prof. Datin Paduka Dr. Khatijah Yusof	Dean, Faculty of Biotechnology, Universiti Putra Malaysia	Malaysia

TENTATIVE PROGRAMME

August 2, 2015 (Sunday)

Arrival of Overseas Participants

Accommodation at MARDI Training Centre

Persiaran MARDI-UPM, 43400 Serdang, Selangor, Malaysia

Tel: +60 38953 6927

August 3, 2015 (Monday)

Time	Activity
8:30 – 9.00 a.m	Registration (MARDI, Serdang) Opening Ceremony
9.00 – 9.45 a.m.	• Welcoming Address: Dr. Sharif Haron, Director General of MARDI • Opening Remarks: Dr. Raghunath Ghodake, Executive Secretary, APAARI • Statement by APAARI Chair:Dr.Alongkorn Kornthong Deputy Director General of Department of Agriculutre, Thailand and Officiating Chairman of APAARI • Opening Speech: Dato' Mohd Arif Ab Rahman, Secretary General, Ministry of Agriculture and Agro Industries, Malaysia
9.45 a.m.	Group Photograph
9.45 – 10.15 a.m.	Tea/coffee Break

Workshop Session

Time	Activity
10.30 – 12.30 p.m.	• Background: Impact and Evaluation • What is an impact? • Special challenges to achieving an impact • What is evaluation? • Why should it be undertaken? • Why is it important? • When should a project be evaluated? • Types of research evaluation • When to start? • What is an evaluation plan?

12.30 – 2.00 p.m.	Lunch
2.00 – 4.00 p.m.	Steps to Evaluation Step 1: Project Orientation • Analysing the current situation • Define what success looks like • Group presentations
2.00 – 4.00 p.m.	Steps to Evaluation Step 1: Project Orientation • Analysing the current situation • Define what success looks like • Group presentations
4.00 – 4.30 p.m.	Tea Break
4.30 – 6.00 p.m.	Step 1: Project Orientation (continued) • Identify key stakeholders and targeted users • Practice change • Group presentations
6.00 – 8.00 p.m.	Dinner
8.00 – 9.30 p.m.	Evening session: Economic impact assessment: theory

August 4, 2015 (Tuesday)

8.30 – 10.30 a.m	Step 2: Project Design • Impact pathway - uses and examples • Walking the impact pathway
10.30 – 11.00 a.m.	Tea break
11.00 – 12.45p.m	Step 2: Project Design (continued) Continuing impact pathway development
12.45 – 2.10 p.m.	Lunch
2.30 – 4.00 p.m.	Step 2: Project Design (continued) Completing and presenting impact pathways
4.00 – 4.30 p.m.	Tea Break
4.30 – 6.00 p.m	Step 2: Project Design (continued) Continuing the impact pathway

6.00 – 8.00p.m.	Dinner
8.00 – 9.30pm.	Economic Impact Assessment: Practical (DREAM Model)

August 5, 2015 (Wednesday)

8.30 – 10.30a.m.	Step 3: Communication, Dissemination and Adoption • Develop communication and dissemination strategies • Understanding enablers and constraints to adoption • Group presentations
10.30 – 11.00 a.m.	Tea break
11.00 – 12.45p.m.	Step 4: Planning the Evaluation • Determine the evaluation audience • Determine the purpose of the evaluation • Determine the KEQs and performance indicators
12.45 – 2.30 p.m.	Lunch
2.30 – 4.00 p.m.	Step 4: Planning the Evaluation Continued • Complete the KEQs and performance indicators • Group Presentations
4.00 – 4.30 p.m.	Tea Break
4.30 – 6.00 p.m.	Step 5: Conducting the Evaluation • Managing the evaluation • Methods for collecting data • Group presentation
8.00 p.m. – 10.30p.m.	Dinner hosted by APAARI

August 6, 2015 (Thursday)

8.30 – 10.30 a.m.	Step 6: Analyzing the data • Quantitative analysis • Qualitative analysis
10.30 – 11.00 a.m.	Tea Break
11.00 – 12.45 p.m.	Step 7: Reporting and Using Findings • Reporting • Maximizing the use of the evaluation

12.45 – 2.30 p.m.	Lunch
2.30 – 4.00 p.m.	Group presentations of completed impact pathways and evaluation plan
4.00 – 4.30 p.m.	Tea Break
4.30 – 6.00 p.m.	Workshop evaluation and wrap-up
8.00 p.m. – 10.30p.m.	Dinner hosted by MARDI

August 7, 2015 (Friday)

8.30 – 10.00 a.m.	Introduction to evaluating information projects, products and services
10.00 – 10.30 a.m.	Tea Break
10.30 – 12.00 p.m.	Walking through the evaluation process
12.00 – 2.30p.m.	Lunch
2.30 – 4.00p.m.	Interpreting and following up evaluations
4.00 – 5.00 p.m.	Conclusion of workshop and presentation of certificates
5.00 p.m.	Tea Break

August 8, 2015 (Saturday)

Departure of overseas participants

Evaluation Training for Agricultural Research Projects: Orientating, Designing and Evaluating Projects to Make a Difference

Project name: …………………………………………………………...

………………………………………………………………………………

Defining Success

This is an orientating exercise.   For each project, a concrete understanding of the change the project has or is trying to achieve at the *community* level (i.e., the 'vision of success') is needed to ensure that the project is focused and likely to achieve its targets.

Activity:

Describe the agricultural problem that the project is targeting (current situation) and the change the project is expected to bring about, either through increased productivity, reduced input costs or losses avoided etc (future situation).   Give an assessment of the importance of the research or development problem to poverty reduction.   Describe the outputs (deliverables) that will be produced and the expected time for the project results to impact on groups outside those directly involved in the research.

Current situation (from..)	Future situation (to..)
The importance of the research or development problem to poverty reduction	
Description of outputs	**Timeframe to reach user**

Identifying Key Stakeholders

Defining the key stakeholders highlights who is important to the project in terms of the implementation, dissemination and impact.

The next and final users of the research results are the targeted groups for change. The next users are those who participate in, or fund, extension activities (e.g., extension workers, NGOs, lead farmers, cooperatives, policy makers) while the final users are those who directly use the research findings (e.g., grain handlers, farmers, agribusinesses). Other important stakeholders include those collaborators who need to be involved in the project (e.g., NARES partners, donors, private companies and other research institutes) and those who need to receive communication about the project (e.g., research managers, government agencies, private companies, general public).

Other groups of people, who are not technically stakeholders (e.g., consumers), may benefit from the project even if they haven't heard about it and don't use the project results.   Listing all beneficiaries provides insights to the project benefits.

Activity:

List all key stakeholders and beneficiaries

	Next users	**Final users**
Targeted stakeholders for change		
Stakeholders who really need to be involved in the project (collaborators)		
Targeted stakeholders to receive communication about the project		
Beneficiaries		

Practice Change

Once the 'vision of success' has been clearly articulated and the key stakeholders have been identified, it is essential to understand what the next and final users 'look like' in terms of their needs and what they will be doing *differently* if they take up the project results.

Activity:

Describe the needs of the next and final users in terms of their ability to take up the project results.   Describe the required practice changes.

What are the needs of the next users?

If the project is successful – what will the next users be doing differently?

What are the needs of the final users?

If the project is successful – what will the final users be doing differently?

Impact Pathway

Developing an impact pathway provides a practical approach for documenting consequences along that pathway as it provides a means of mapping the cause-and-effect linkages along the impact pathway. These links maybe direct or indirect, strong or weak, and certain or highly uncertain, all of which should be assessed.

Activity:

Describe the impact pathway from outputs through to impact.

Research project output (key deliverables)	
Next users	Who are they? KASA change? How will they pass on the outputs?
Final users	Who are they? KASA change? What will they be doing differently?
Impact	

Communication and Dissemination Strategies, and Adoption

Lags of several years can occur between the time when the research commences to the time when the effects on production and productivity are realized.   Depending on the nature of the R&D project, research, development and adoption lags may be short or long.   The nature and scope of the communication and dissemination procedures outlined here should closely align with the intended 'time to impact'.

Activity:

Discuss the proposed strategies to promote adoption of project outputs, considering the stakeholders preferred way of hearing about the research outputs.   Describe the relevant cultural, social, political and environmental factors that are likely to enable or inhibit adoption, and any actions that can be taken within the project to overcome the inhibitors and/or enhance the enablers.   List the organizations or agencies outside the project that are responsible for agricultural extension activities.

Proposed communication and dissemination strategies: Do they match the users' preferred method?	
Next Users	**Final Users**
Enablers and inhibitors to adoption	
Next Users	**Final Users**
Action	**Action**
Organisations (outside the project) responsible for extension activities.	

Management of the Evaluation

Managing evaluations includes determining who should do the evaluation, the level of credibility required, whether or not the evaluation is internal or external, and the resources needed/available for an evaluation.

Activity:

Describe the evaluation process and timing.

Who will manage the evaluation?	Who will conduct the evaluation?
What level of credibility is needed and how will you ensure it?	**What additional resources are needed?**
When will the evaluation be undertaken	

Defining the Evaluation Tasks

After articulating the impact pathway, the next step is to define the evaluation tasks. Knowledge of the evaluation audiences of the project, and the information those audiences will want to know about the project, will increase the likelihood that the results from the evaluation will be used.

Activity:

Describe what the audiences will need to know and the data required to answer the key evaluation questions and performance measurement indicators.

Audience	What will they need to know?	What new or existing data are required?
Project team		
Donor and government agencies		
NGOs and collaborators		
Users and beneficiaries		

Design and Methods

There are a variety of methods available to collect data and often it is preferable to combine methods to verify results.

Activity:

Describe the methods that will be employed to collect the data required to answer the key evaluation questions and performance measurement indicators.

Program logic	KEQ and PI	Data	Methods to gather data
Outputs			
Next users dissemination			
Next users KAP			
Final users dissemination			
Final users KAP			
Impacts			

Analyzing the Data

Quantitative analysis involves heavy use of numerical measurement, provides a discipline and focus of qualitative speculations and gives an important extra dimension when comparing different projects. Qualitative analysis provides a description and interpretation of non-quantifiable information and is an important prelude to quantification. In short, quantitative analysis shows what has happened while qualitative analysis sheds light on the reasons why.

Quantitative analysis includes economic impact assessment, partial budget analysis, and simple direct measurement of variables of interest. Qualitative analysis includes story-based approaches such as the 'most significant change' and case studies.

Activity:

Determine the qualitative and qualitative analysis to be undertaken.

Quantitative Analysis	Qualitative Analysis

Writing and Using the Evaluation Report

The final step is to consider the format of the evaluation report and how it will be used.

Activity:

Consider the various ways of presenting the report and evaluation findings and ways of increasing the likelihood that the finding of the evaluation report will be used.

How will the results of the evaluation be presented / reported?	How will recommendations be developed?

How will you increase the likelihood that the evaluation findings will be acted upon?