

出國報告（類別：開會）

本會派員赴菲律賓  
出席我與國際稻米研究所（IRRI）三方  
合作計畫  
105 年第二次執行委員會  
返國報告

出差人員：財團法人國際合作發展基金會 李栢淳副秘書長、李樵山專員

派赴國家：菲律賓

出國期間：105 年 12 月 15 日至 17 日

## 報告摘要

行政院農業委員會（農委會）與國際稻米研究所（IRRI）及本會於 104 年元月簽署合作備忘錄，締結合作夥伴關係，為討論下（106）年度雙方之合作計畫，本會執行委員代表李栢淳副秘書長於本（105）年 12 月 15 至 17 日率員出席在菲律賓國際稻米研究舉辦之第二次執行委員會議。依據備忘錄合作架構與第一次執行委員會議結論，本次會議本會與 IRRI 預定於下年合作推動三項工作（總預算約 10 萬美元），包括：(1)辦理「海地強化稻種生產能力計畫」－IRRI 專家派遣任務，透過 IRRI 專家檢驗本會海地稻作技術合作計畫成效；(2)委託 IRRI 與 International Center for Tropical Agriculture（CIAT）合作辦理本會拉丁美洲地區駐外技術人員客製化稻作訓練課程，希冀透過 IRRI 建立與 CIAT 之合作管道，擴大本會與國際組織合作；(3)與 IRRI 合作辦理緬甸稻作研討會。

為發展本會中長程人力建構與技術研發能量，未來將透過 IRRI 專家派遣合作、客制化課程及緬甸稻作研討會之機會，循序發展本會與國際組織資源共享、優勢互補與技術創新能力，同時建立本會與 IRRI 在友邦國家辦理業務之多方合作模式。

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## 壹、 任務緣起

鑒於稻作產業屬於本會農業優勢領域，考量本會技術協助之中長程策略與需求，為擴展國際合作業務暨配合國內農業發展政策，本會李栢淳副秘書於上（104）年1月26日見證行政院農業委員會（以下簡稱農委會）代表簽署主體與國際稻米研究所（以下簡稱IRRI）簽署合作備忘錄，締結策略合作夥伴關係，在此合作架構下農委會、外交部、本會三方共同與IRRI執行合作計畫。為討論下（106）年度雙方未來工作，本會已於本（105）年9月21日出席農委會於我國主辦之第一次執行委員會議，就合作計畫主軸達成會議共識。

農委會訂於本年12月15至17日洽邀國內相關單位，赴IRRI菲律賓總部辦理第二次執行委員會議，本會執行委員代表李栢淳副秘書長將率李樵山專員出席旨揭會議。

## 貳、 任務期間

本（105）年12月15日至17日，共3日。

## 參、 工作目標

- （一）出席執行委員會議與農委會及IRRI就合作具體內容進行晤談。
- （二）與IRRI協商「代訓本會駐外技術人員之2017年客製化課程」及研擬合作意向書。

## 肆、 與會人員

### 一、 本會

| 姓名                      | 職稱                                  | 單位  |
|-------------------------|-------------------------------------|---|
| 李栢淳博士<br>Dr. Pai-po Lee | 副秘書長<br>Deputy Secretary<br>General | 財團法人國際合作發展基金會<br>The International Cooperation and<br>Development Fund (TaiwanICDF) |
| 李樵山                     | 專員                                  |   |

|                    |         |  |
|--------------------|---------|--|
| Mr. Chiao-shan Lee | Officer |  |
|--------------------|---------|--|

二、 行政院農業委員會 (包括農試所、臺灣大學成員)

| 姓名                           | 職稱                                      | 單位   |
|------------------------------|---|--|
| 林家榮<br>Mr. Chia-Rong Lin     | 代理副處長<br>Acting Deputy Director General | 行政院農業委員會國際處<br>Department of International Affairs, COA  |
| 呂秀英<br>Ms. Hsiu-Ying Lu      | 場長<br>Director                          | 行政院農業委員會苗栗區農業改良場<br>Miaoli District Agricultural Research and Extension Station, COA   |
| 楊純明博士<br>Dr. Chwen-Ming Yang | 組長<br>Director                          | 行政院農業委員會農業試驗所<br>Taiwan Agricultural Research Institute (TARI), COA  |
| 賴明信博士<br>Dr. Ming-hsin Lai   | 副研究員<br>Assistant Researcher            | 行政院農業委員會農業試驗所作物組關西工作站<br>Crop Science Division and Guansi Experiment Station, Taiwan Agricultural Research Institute (TARI), COA |
| 張孟基博士<br>Dr. Men-chi Chang   | Associate Professor<br>副教授              | 國立臺灣大學農藝學系<br>Department of Agronomy, NTU  |
| 李瓊妮                          | 科長                                      | 行政院農業委員會國際處,   |

|  |  |   |
|--|--|---|
|  |  | Department of International Affairs,<br>COA |
|--|--|---|

### 三、 國際稻米研究所 (IRRI)

| 姓名                    | 職稱                      | 單位   |
|-----------------------|-------------------------|--|
| V. Bruce J. Tolentino | Deputy Director General | Communication and Partnerships                             |
| Ms. Corinta Q. Guerta | Director                | External Relations, Communication and Partnerships         |
| Dr. Hei Leung         | Principal Scientist     | Plant Breeding, Genetics and Biotechnology Division (PBGB) |
| Dr. Peter Brothers    | Head                    | Impact Acceleration / Training                             |
| Mr. Jason T. Beebout  | Project Manager         | Impact Acceleration / Training                             |

### 伍、 工作行程

| 日期/時間                  | 活動內容   | 備註                  |
|------------------------|--|---------------------|
| December 15 (Thursday) |  |                     |
| 15:30-17:50            | 搭桃園機場 15:30 長榮 (BR277)班機赴菲律賓馬尼拉                        | 啟程                  |
| 19:30~                 | 前往 洛斯巴諾斯 (Los Baños, Laguna) 入住 IRRI 客房 (guest house)。 | IRRI 園區<br>夜宿 洛斯巴諾斯 |
| December 16 (Friday)   |  |                     |
| ~12:00                 | Review of current collaborative project 2016           | IRRI 園區             |

| 日期/時間                     | 活動內容  | 備註                 |
|---------------------------|---|--------------------|
|                           | (1) final review of project 2016<br>(2) work plan of project 2017<br><br>(成果驗收與新計畫討論) |                    |
| ~16:00                    | The second Steering Committee<br><br>(第二次執行委員會議)                                      | IRRI 園區<br>夜宿洛斯巴諾斯 |
| December 17<br>(Saturday) |   |                    |
| 10:00                     | 洛斯巴諾斯出發   |                    |
| 12:50-15:00               | 搭 12:50 長榮(BR272)班機<br>返回臺北   | 返回臺北               |

## 陸、工作成果

本會議議程為討論 106 年度雙方工作細項，成員除本會與 IRRI 人員，亦包括我農委會、農業試驗所、臺灣大學等。本會與 IRRI 於 106 年合作項目共三項（詳附件一 Letter of Intent），總預算約 10 萬美元，合作摘要內容如下：

### 一、洽商辦理 IRRI 專家派遣任務，透過 IRRI 專家檢驗本會海地稻作技術合作計畫成效

|                                 |                                  |
|---------------------------------|----------------------------------|
| 106 年「海地強化稻種生產能力計畫」－IRRI 專家派遣任務 |                                  |
| 參與人員                            | 本會人員 1 名*、IRRI 專家 2 名（稻種檢驗、稻種選育） |
| 辦理地點                            | 海地 Artibonite 省                  |
| 辦理期程                            | 預定 106 年 4 至 5 月上旬或 10 至 11 月上旬  |
| 任務目標                            | 1. 檢視計畫成效<br>2. 針對計畫提供改進事項與建議    |

\*本會人員出差旅費未包含於本會與 IRRI 合作案預算內。

### 二、洽商 IRRI 與 International Center for Tropical Agriculture（CIAT）合作辦理本會拉丁美洲地區駐外技術人員之 106 年客製化稻作課程

|  |  |
|--|--|
| 鑒於本會於拉丁美洲地區－海地、尼加拉瓜等國執行數項稻作計畫，為進一步拓展本會與國際組織合作及人員能力建構，本會洽商 IRRI 建立與 International Center for Tropical Agriculture（CIAT）之合作管道，進一步介接本會技術合作計畫與 CIAT 於拉丁美洲地區之稻作資訊及計畫執行經驗，反饋至本會拉丁美洲地區稻作計畫。 |  |
| 受訓學員   | 人員待定   |
| 辦理地點   | IRRI/CIAT  |
| 培訓期程   | 預定 106 年第 3 季  |
| 可參考之課程主題*  | 1. Characterization and Seed Multiplication<br>2. Growth Phases and Morphology of the rice plant<br>3. Quality Seed Production |



|  |   |
|--|---|
|  | 4. Overview of Rice Breeder Seed Production<br>5. Thinking about seed quality<br>6. Nutrient requirements and management for rice<br>7. Minimizing Contamination<br>8. New Paradigms in Extension<br>9. Community Based Seed System<br>10. Participatory varietal selection (PVS)<br>11. A Segmented Policy Strategy for Rice Value Chain Upgrading<br>12. International Network for Genetic Evaluation of Rice (INGER)<br>13. Germplasm Exchange<br>14. Farmers' Interaction |
|--|---|

\*可參考之課程主題來源為 105 年客製化課程訓受成效分析問卷，前揭主題獲參訓人員良好評價，將續與 IRRI 討論作為下年進階課程主題之可行性。

### 三、 洽商與 IRRI 合作辦理緬甸稻作研討會

| 106 年緬甸稻作培訓課程 |   |
|---------------|---|
| 受訓學員          | 緬方私部門                                       |
| 辦理地點          | 緬甸  |
| 培訓期程          | 預定 106 年 11 月                               |
| 課程主題          | 水稻生產或價值鏈提升                                  |
| 合作架構          | 1. IRRI 主導課程設計協商及資源整合作業<br>2. 緬方推薦高階學員參與研討會 |
| 目標            | 開拓本會與緬方之技術合作可行性                             |

## 柒、 結論與建議

依據所決議事項，預定規劃後續期程及內容如下：

### 一、 預定期程規劃<sup>1</sup>

#### (一)106 年「海地強化稻種生產能力計畫」IRRI 專家派遣任務

1. 106 年 1 月：由本會海地計畫承辦人確認計畫所需專家類別；
2. 106 年 2 月：由本會 IRRI 窗口請 IRRI 推薦專家人選，並介接本會海地計畫承辦人與 IRRI 所推派專家之聯繫方式；
3. 106 年 3 月：由本會海地計畫承辦人完成專家派遣任務工作規範書(TOR)英文版，同時辦理行前與返國會議時以視訊方式請 IRRI 專家與會，另本會海地計畫承辦人亦隨 IRRI 專家赴海地考察，經費來源可考量自委辦經費支應；
4. 106 年 6 至 7 月：由本會 IRRI 窗口協同會計室完成 IRRI 專家核銷。

#### (二)106 年 IRRI 與 International Center for Tropical Agriculture (CIAT) 合作辦理本會拉丁美洲地區駐外技術人員之 106 年客製化稻作課程

1. 106 年 2 月：雖然 IRRI 與 CIAT 皆屬 Consultative Group on International Agricultural Research (CGIAR)，兩機構未曾合辦人員能力建構訓練，因此 IRRI 人員將針對合作辦理本會拉丁美洲地區駐外技術人員之 106 年客製化稻作課程與 CIAT 進行洽商，預計 106 年 2 月提供課程規劃草案；
2. 106 年 8 至 9 月：為進一步介接本會技術合作計畫與 CIAT 於拉丁美洲地區之稻作資訊及計畫執行經驗，IRRI 與 CIAT 兩機構合辦涉及課程規劃、行政、師資等分攤作業，預計於 106 年第 3 季辦理；
3. 106 年 10 月：由本會 IRRI 窗口協同會計室完成核銷。

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<sup>1</sup> 鑒於本會與 IRRI 合作案涉及與多方(如海地、CIAT、緬方等)合作，預定期程規劃得依實際執行情形酌調。

### (三)106 年合作辦理緬甸稻作研討會

1. 106 年 6 月：本會原訂於本（105）年 11 月 1、2 日在緬舉辦「稻作增產研討會」，並規劃邀請緬甸農業部高層官員出席，共同研商潛在具體合作項目，經 IRRI 駐緬辦公室數次洽邀後，緬甸農業部回覆緬甸新政府指示各部會辦理臺緬合作業務時僅限於商業領域，緬甸農業部另建議本會以接受 IRRI 受邀與會（invitee）之方式出席研討會，為維護我方權益，本會取消辦理該研討會。鑒於前例，IRRI 尚需與緬方細部洽談 106 年緬甸稻作研討會，預計 106 年 6 月提供課程規劃草案；
2. 106 年 11 月：本案預計於 106 年 11 月舉行；
3. 106 年 12 月上旬：由本會 IRRI 窗口協同會計室完成核銷。

## 二、 發展合作方向

未來本會與 IRRI 合作方向將進一步考量聯合國永續發展目標、國際農業發展趨勢、駐地計畫執行人員能力及本會優勢領域等因子，設計適合技術合作領域之內容。由於本會與 IRRI 合作業務尚於開發階段，將積極開發與其他國家合作機會，穩定建立與我方與 IRRI 合作模式，進以達成資源共享、優勢領域互補與技術創新目標。

## 捌、 照片

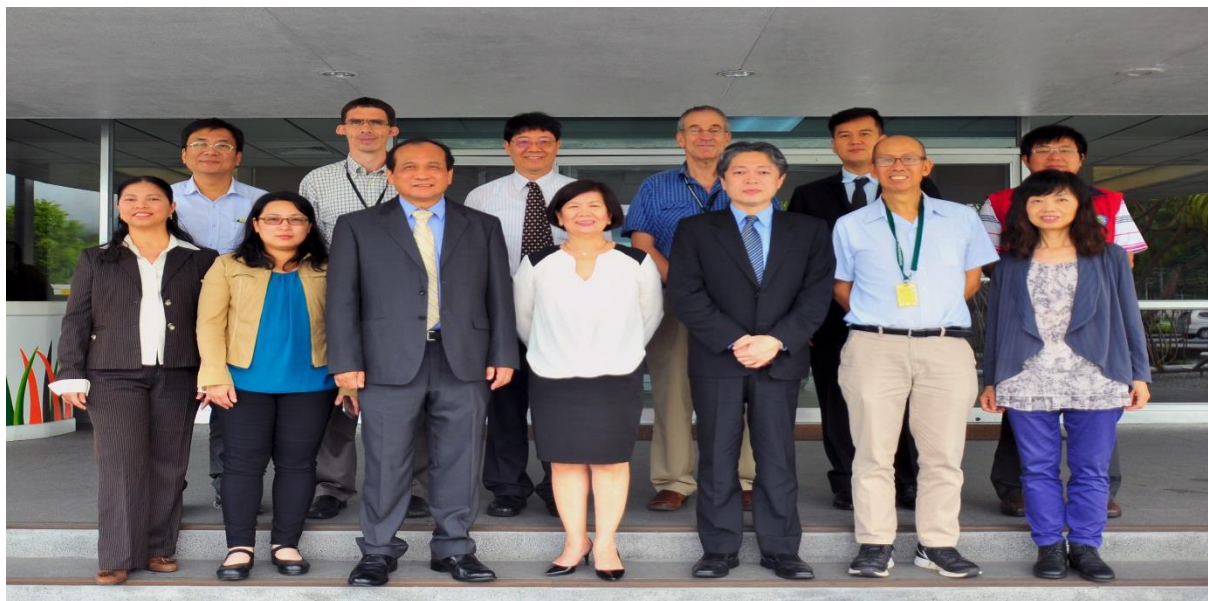


圖 1 臺灣代表團成員合照

前排左起為 Ms. Vina Alvarez、李瓊妮科長、李栢淳副秘書長、Ms. Corinta Guerta、林代理副處長家榮、Dr. Hei Leung、呂場長秀英，後排左起為張孟基副教授、Mr. Jason Beebout、楊純明組長、Dr. Peter Brothers、李樵山專員、賴明信副研究員。



圖 2 會議討論與意見交流

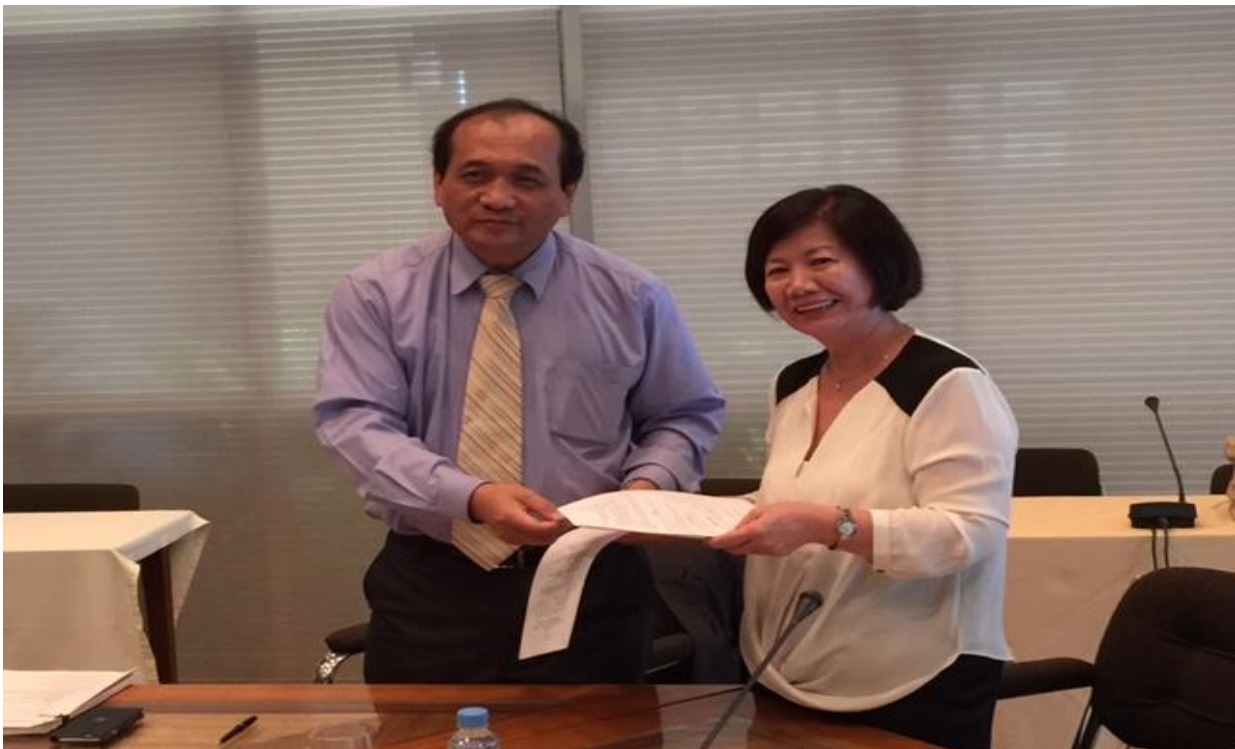


圖 3 與 4 李栢淳副秘書長與 IRRI 外事處主任 Ms. Corinta Guerta 就本會 106 年合作內容簽署 Letter of Intent(附件一)。

附件一：本會與 IRRI 同意於下（106）年合作項目

|   |
|---|
| <p style="text-align: center;"><b>Letter of Intent</b><br/><b>On</b><br/><b>The 2017 Cooperation</b><br/><b>Between the International Cooperation and Development Fund (TaiwanICDF)</b><br/><b>and the International Rice Research Institute (IRRI)</b></p>   |
| <p style="text-align: center;"><b><u>Basis</u></b></p> <ol style="list-style-type: none"><li>1. Based upon the <u>Memorandum of Understanding on Agricultural Technical Cooperation between the Council of Agriculture of the Republic of China (Taiwan) and the International Rice Research Institute (IRRI)</u>, TaiwanICDF and IRRI intend to do collaboration and cooperation in 2017 in the following areas: Consultancy Mission to Haiti, Customized Training Course, Myanmar Workshop.</li><li>2. Both the TaiwanICDF and IRRI have fully exchanged understanding to organize <u>2017 Consultancy Mission to Haiti, Customized Training Course, and Myanmar Workshop.</u></li></ol> <p style="text-align: center;"><b><u>Budget</u></b></p> <p>A total of one hundred thousand US dollars (USD100,000) will be allocated to support the following activities :</p> <ol style="list-style-type: none"><li>1. Consultancy Mission to Haiti</li><li>2. Customized Training Course with a training activity in Latin America</li><li>3. Myanmar Workshop involving private sector organizations</li></ol> <p style="text-align: center;"><b><u>Location and dates</u></b></p> <ol style="list-style-type: none"><li>1. Consultancy Mission to Haiti between May and June 2017.</li><li>2. Customized Training Course in IRRI/CIAT in September 2017.</li><li>3. Myanmar Workshop in November 2017.</li></ol> <p style="text-align: center;"><b><u>Roles and responsibilities</u></b></p> <ol style="list-style-type: none"><li>1. The TaiwanICDF will be responsible for<ol style="list-style-type: none"><li>(1) The fees of the 3 programs mentioned above in total of US\$ 100,000.</li><li>(2) Proportion and discussion in planning the programs.</li></ol></li><li>2. The IRRI will be responsible for<ol style="list-style-type: none"><li>(1) Organizing the programs.</li><li>(2) Executing the 3 programs mentioned above in close consultation with TaiwanICDF</li><li>(3) IRRI should provide a fund receipt, a final report, a financial report and</li></ol></li></ol> |



other supporting proofs for the TaiwanICDF.

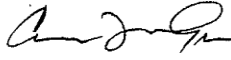
**Others**

Any changes on the above will be discussed and agreed between TaiwanICDF and IRRI

For the International Cooperation  
And Development Fund (TaiwanICDF)

For the International Rice  
Research Institute (IRRI)

 (Signed)

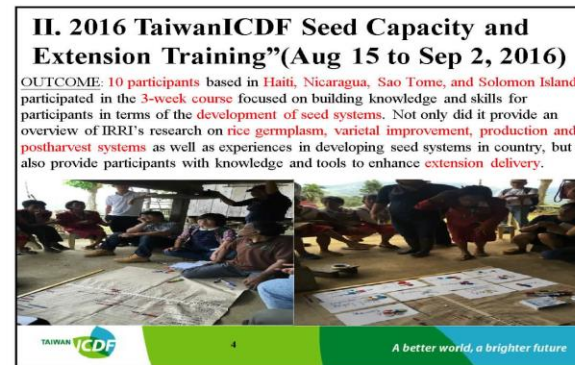
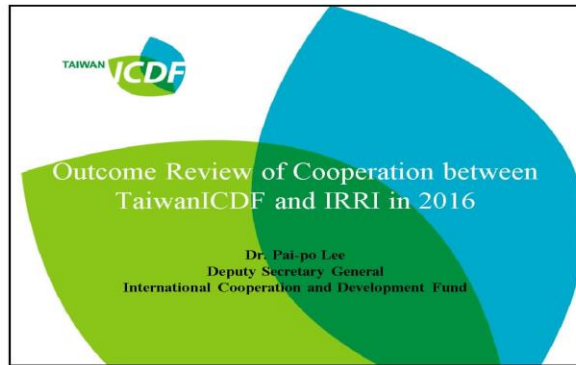
 (Signed)

CORINTIA G. GUGAYA  
DIREKTOR, RELASI EKSTERNAL

16-Dec-2016 (Date)

16/16 (Date)

附件二：本會 105 年與 IRRI 合作成果簡報





### 2016 Training Topics with High Ratings (Possibilities for 2017 Advanced Training)

|   |
|---|
| Characterization and Seed Multiplication  |
| Growth Phases and Morphology of the rice plant  |
| Quality Seed Production   |
| Overview of Rice Breeder Seed Production  |
| Thinking about seed quality   |
| Nutrient requirements and management for rice   |
| Minimizing Contamination  |
| New Paradigms in Extension  |
| Community Based Seed System   |
| Participatory varietal selection (PVS)  |
| A Segmented Policy Strategy for Rice Value Chain Upgrading in Africa                      |
| International Network for Genetic Evaluation of Rice (INGER) & Germplasm Exchange         |
| Farmers' Interaction: Visits to Banaue Farmer's Cooperative & Ifugao Farmer's Cooperative |
| Visits to Phil Rice & Nueva Ecija Farmers' Group  |

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### III. Increasing rice productivity and enhancing human capacity: A shared vision for Myanmar (cancelled)

DATE: Proposed to be held in **November 2016**.

OUTCOME: Identify **strategies and specific interventions** that will **ensure sustainable rice productivity** and supply of human resources required to implement and realize the goals of the Myanmar's Rice Sector Development Strategy (MRSDS).

RESULT: The workshop was **cancelled** accordingly as a matter of the fact that the new Myanmar government prefers to **limit the cooperation with Taiwan only to the Myanmar business sector** for the time being.

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### IV. Cooperation Possibilities in 2017

- Possibilities for 2017 Advanced Training (refer to Slide 5)
- Possibilities to extend ICDF trainings to [CIAT](#) and [AfricaRice](#) via IRRI

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## 附件三：IRRI 訓練中心報告文件

  
**ICDF Training at IRRI**  
**2016 Workshop on Rice Post-production and Marketing**  
May 16-27, 2016  
**Seed and Extension Capacity**  
15 August – 2 September 2016  


**Rice Post-production and Marketing**  
*Course Objectives*

1. Learn practical skills for evaluating sources of post-production losses
2. Assessment of rice market and rice quality standard
3. Use of IRRI Quality Kit to assess the quality of paddy, milled rice, and seed
4. Evaluation of different post-production technologies options to manage preventable losses

**Participant Overview**

- 17 Participants – 12 male/5 female
- 10 countries – Brunei (2); Haiti (3); Indonesia; Korea; Myanmar; Nigeria; PNG (3); Philippines; Solomon Islands; Taiwan (3)



**Some highlights of the Post-harvest training**

- Plenty of in the field, hands-on experience with rice production and post-production activities
- Visits to relevant labs/centers within IRRI like the T.T. Chang Genetic Resources Center; Grain Quality lab; Seed Health Unit; and Post Harvest facilities
- Trip to Nueva Ecija to visit PhilRice and PhilMech as well as GrainPro in Subic

## Other Post-harvest training highlights

- Visit to the Banaue Rice terraces to learn about the production and post-harvest processes and to engage with farmers and learn from them



## Seed and Extension Capacity Training

### *Course Description*

- A three-week course which focused on building knowledge and skills on rice seed production and postharvest systems;
- Understanding rice seed systems;
- Providing an overview of IRRI's research on rice germplasm and varietal improvement;
- Providing participants with knowledge and tools to enhance extension delivery.

## Seed and Extension Capacity Training

### *Participant Profile*

- 10 participants (7 males and 3 females) assigned in different project sites – Haiti, Nicaragua, Solomon Islands, Sao Tome and Principe (Islands of West Africa), and Taiwan



## Highlights of the Training

- The ICDF Seed and Extension Capacity Training was a practical, hands-on course which exposed the participants to different learning methodologies.

### Exposure to different learning methodologies



### Extension Methodologies



### Evaluation and Feedback

- Overall, the participants gave very positive feedback regarding the training.
- Most of them said that all the information learned from the training will help them improve their work.
- They will recommend the course to their other colleagues.

### Comments from Participants

- “The course was impressive.”
- “Thank you to all of you for the quality training at IRRI. The resource persons and training management team are the best.”
- “I love this course very much. It offered me many useful information and inspired me to review and think of our project.”



### Discussions with IRRI scientists and researchers



### Highlights of the Training

- Participants learned and experienced different farm activities and operations in the field which included seed quality assessment, land preparation, crop establishment, pest and disease management, identification of other varieties, harvesting, post-harvest processing, seed health testing, and grain quality assessment.

### Learning and experiencing different farm activities and operations in the field





## Highlights of the Training

- Participants were also able to visit different laboratories and screenhouses and experience the testing and analysis of experiments in the laboratory.

## Visits to research and field facilities



## Comments from Participants

- “ Thank you to all for arranging this course. It’s really useful for my future work.”
- “ You guys did a great job. I learned a lot and I’m happy to be here.
- “ I got a lot of information for improving work tools and increasing knowledge.
- “ The training course paid a lot of attention to our needs and satisfied them.”

## Some more pictures from the training



### During the Welcome Dinner



### Land selection and preparation for seed



### The Participants



### Visit to GrainPro in Subic



## Visit to Banaue Rice Terraces



## Seed and Extension Capacity Training

### *Training Objectives*

1. Provide an overview of IRRI's work in the seed sector including germplasm maintenance and the utilization of diverse genetic resources;

## Seed and Extension Capacity Training

### *Training Objectives*

2. Utilize and provide rice production training manuals recently developed from IRRI training materials.
3. Deliver knowledge about rice ecosystems and relevant production systems; breeding methods and strategies to cope with difficult production environments and the challenges of climate change.

## Seed and Extension Capacity Training

### *Training Objectives*

4. Build knowledge and capacity in extension systems with sessions to introduce ICT tools like RKB, Rice Doctor, and RCM; engaging farmers and partner organizations; and training on the use of recently developed training manuals for rice production and seed.



## Highlights of the Training

- The course content focused more on the seed systems and extension methodologies.

## Highlights of the Training

- Participants were able to meet and discuss with IRRI scientists and researchers who conducted sessions in their fields of expertise (plant breeding, genetics and biotechnology, crop and environmental sciences, and social sciences)