



**IFAR 2007 Professional Development Program
Completion Report
[800 words]**

Instructions:

Please submit the completion report by email, using this form, through the sponsoring CGIAR Center to ifar@ifar4dev.org within three months after the completion of the fellowship.

Please check if Thalwitz Scholarship

NO

Name of Applicant

Muhammad Yusuf Ali

Sponsoring CGIAR Center

CIMMYT, Mexico

I. Work Program goals achieved (maximum length: 200 words):

Through the work entitled “A profile of maize-rice cropping systems in Bangladesh” (63 pages) of the fellowship characterization of rice-maize systems of Bangladesh was successfully completed for the first time emphasizing the strategic biophysical and socioeconomic assessment of current and future prospect of the systems. Thus the goal of the program was perfectly achieved. The article will be published soon as CIMMYT-IRRI joint publication.

Hybrid maize is an emerging high value cereal crop in Bangladesh, having among the highest average yields (5.7 t ha^{-1}) found in Asia. Economically, hybrid maize is far superior to *boro* rice and wheat, and most other competing Rabi crops. It is predicted that in the near future its expansion would continue to increase at about 15 % per year. A booming poultry industry is the key driver behind the expansion of maize for the supply of feed. In future, alternative uses of maize may increase. Maize-T.aman rice is the major cropping system; however it is now becoming diversified with many other crops including potato. Although maize is relatively problem-free in Bangladesh, some constraints are intensifying with increased concern over input supply and environmental sustainability. An array of new technologies for sustainable intensive maize production systems is emerging in Bangladesh and some are being promoted and adopted. Further employment generation through hybrid maize cultivation and value addition of maize grain particularly for poultry feed were quantified. However, the sustainability of hybrid maize production in Bangladesh depends on optimization of planting time x quality seed of appropriate variety x balanced nutrient management along with soil fertility conservation x other management, plus the containment of bird flu and other diseases.

II. Plans for follow-up (maximum length: 200 words):

The output of the work would be used for the future research and development work on the emerging rice-maize systems of Bangladesh. Through the work different biophysical and socioeconomic constraints of the systems have been vividly chalked out. Moreover the environmental issues and long term sustainability of the exhaustive rice-maize (hybrid) cropping systems were pointed out. To address the said problem researchable issues and concern of the farmers and extension workers have been documented.

Through the proposed ACIAR funded project on optimizing rice-maize systems of Bangladesh the findings of the IFAR fellowship work would be quite helpful. It may be mentioned that project is proposed by CIMMYT and IRRI and it would implemented during 2008-2013 through Bangladesh Agricultural Research Institute (BARI), Bangladesh Rice Research Institute (BRRI) and Bangladesh Rural Advancement Committee (BRAC). Moreover, future alternative use of maize (beyond poultry feed) was indicated, creating the path of food diversification, encouraging value addition and further value addition.

Also for the preparation of mega project (to be started in next February, 2008), namely South Asia Cereal Systems Initiative (SACSI) by IRRI, CIMMYT and IFPRI the information of the present document will be quite helpful. Moreover, for undertaking research and development works on rice-maize systems by different research and development institutes of South and East Asia, particularly for Bangladesh the findings would be an important basis.

III. Report budget utilization including whether budget was spent as planned (maximum length: 100 words): Yes the budget was spent as per original plan. Following is the break-up of expenditure statement.

Air-ticket (Dhaka- Mexico)	US \$4200
Visa collection fee, stay at Delhi and others	US\$1000
En route cost	US\$400
Food and subsistence allowance	US\$1800
Accommodation	US\$1200
Health insurance	US\$100
Computer	US\$300
Consumable/GIS	US\$600
Data collection in Bangladesh	US\$400
Books	US\$1000
Total	US\$11,000

IV. Assessment of the fellowship experience and general comments.

(maximum length: 300 words): It was a wonderful opportunity for me to work for a emerging and potential systems of Bangladesh, South and East Asia under the guidance of a group of highly experienced CIMMYT scientists. I also learnt a lot from other scientists and visitors. I was able to share my experience and expertise on rice-maize systems of Bangladesh with many interested personnel across the globe. I was highly encouraged to make a quality work with the assistance of world standard intellectuals along with sufficient logistic support. It was a very productive time for me. However, I think to make the work more realistic, recent data base should be included, which need more time and enhanced budget allocation. Therefore, I believe the duration of the fellowship should be increased to three months along with required fund allocation for data collection (travel and associated expense).