REPORT

ICAR-Directorate of Poultry Research, Rajendranagar, Hyderabad - 500 030 India
Feed The Future India Triangular Training (FTF ITT) 
International Training Program on 
“Modern Poultry Management” 
for executives of African and Asian Countries 
1 -15 May 2018 at ICAR-DPR, Hyderabad, India 

REPORT 

Prepared By 

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1. INTRODUCTION

1.1 Background

Poultry farming is one of the fast growing sectors of agriculture transformed from a traditional backyard activity to agribased industry globally. The consumption pattern of poultry products is rising globally due to its advantages in terms of cost and nutritive value. Poultry meat and eggs are the cheapest animal-protein available and eaten globally across diverse cultures, traditions and religions. Traditional small-scale/ rural poultry system continue to play a crucial role in sustaining livelihoods in developing countries, supplying poultry products in rural areas, and providing important support to women farmers. India is one of the leading countries in poultry production ranking 3rd position in egg production with 88 billion eggs annually and 5th in meat production with 3.8 million tons. Commercial poultry occupies major share with 80 percent production and rest is by rural/backyard poultry. Poultry production not only offers quality protein but also provides employment opportunities in basic and allied sectors related poultry. The present training is conceptualized to provide the advance insights in to the modern poultry management to the executives who can help and improve the poultry production system in their respective countries.

1.2. Why FTF-ITT by ICAR-DPR

The ICAR-Directorate of Poultry Research is the premier institution in the field of poultry science research and extension in India serving the country for the last 30 years. The Directorate is working on development of germplasm suitable for rural poultry production; maintenance and improvement of elite broiler and layer purelines for augmenting productivity under tropical climate. The Directorate is mandated to coordinate the research program of All India Coordinated Research Program on Poultry Breeding with 12 centres located across the country. Directorate is also coordinating 12 Poultry Seed Project Centers spread across the country for propagation of improved chicken germplasm. In supporting the core research program, research on nutrition, health, physiology and molecular genetics aspects is being pursued. Research in nutrition at this Directorate resulted in development of important technologies that have been adopted by the commercial and rural farmers to reduce cost of production. Besides nutritional knowhow, the Directorate is also familiar among poultry farming community for its services in disease diagnosis and health care. Studies on advanced molecular genetic tools and functional genomics were also undertaken for augmenting the productivity of various chicken germplasm.

At this Directorate, three promising chicken varieties for rural poultry farming were evolved i.e., Vanaraja, a dual-purpose bird, Gramapriya and Srinidhi, predominantly layers, meant for free-range and backyard farming. The Directorate
also developed two crosses viz. *Krishibro*, a multi-colored broiler and *Krishilayer*, a high yielding egg producing bird for commercial purposes. The Directorate thus is actively engaged in augmenting the productivity of chicken by undertaking research in different aspects of Poultry Science to cater to the needs of the country.

The Directorate is having state of art facilities to conduct advance research and training program to various stake holders including international programs. In this context ICAR-DPR is an ideal place for organizing FTF-ITT where participants get exposure to all aspects of poultry farming that will help them in addressing issues related to poultry farming in their respective countries thereby aiding achievement of food and nutritional security.

1.3 Objectives of the Training Program:

1. To impart knowledge in modern poultry management.
2. To create impact on poultry farmers through trained executives in their respective countries.

1.4 Key focus areas of training module:

The training module was designed in such a way that the participants are exposed to different aspects of poultry production and management. The focus areas were nutrition, farm and hatchery management, poultry diseases and their prevention, chicken reproduction, rural poultry, processing of chicken meat and poultry production in India and the world. The module included class room learning through lectures, group discussion and case studies; hands on experience in hatchery and farm management; feed compounding and least cost formulations using software; field visits. All the relevant aspects of poultry production were covered in the training module.

1.5 Selection of the Executives

The Program was formally announced by the National Institute of Agriculture Extension Management (MANAGE), Hyderabad, India. The Program Management Unit (PMU), FTF-ITT, at MANAGE prepared the program brochure, initiated the process and provided good publicity in partner countries through their Point of Contact (PoC), Indian Embassies, USAID Mission of respective countries, National Governments and previously trained executives. The partner country has nominated the executives working in animal husbandry and allied departments and the PMU-FTF ITT of MANAGE has finalized the nominations.
1.6 Profile of the Executives

Twenty nine executives from eight countries (1 from Botswana, 1 from Mozambique, 6 from Kenya, 4 from Liberia, 6 from Mongolia, 3 from Malawi, 3 from Myanmar, 5 from Uganda) have attended and successfully completed the program. The selected executives belonged to diverse working areas viz., Veterinary Science, Rural Development Officers, Agricultural Economists, Agricultural Extension Officers namely Livestock, Agribusiness, Serologist, Food Micro Biologists, and Technicians etc., representing public universities and government organizations in partner countries. Out of 29 executives, nearly half of the group consisted of women executives.

List of Executives

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name and Address</th>
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<tbody>
<tr>
<td><strong>Botswana</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td><strong>Ms. Kegomoditswe Bula</strong>&lt;br&gt;Senior Scientific Officer&lt;br&gt;Ministry of Agricultural Development and Food Security/Department of Animal Production&lt;br&gt;P.O.Box 1429, Palapye Botswana&lt;br&gt;Tel: 0267 4924741/00267 4920075, 0267 73104385/ 0267 72751576&lt;br&gt;Email: <a href="mailto:kbula@gov.bw">kbula@gov.bw</a>, <a href="mailto:joelbula@gmail.com">joelbula@gmail.com</a></td>
</tr>
<tr>
<td><strong>Kenya</strong></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Ms. Mary Adhiambo Ochieng Ondieki</strong>&lt;br&gt;Chief Veterinary Officer&lt;br&gt;Directorate Of Veterinary Services, Kenya&lt;br&gt;Tel: 020-8043441, +254723440400&lt;br&gt;Email: <a href="mailto:infodvs@kilimo.go.ke">infodvs@kilimo.go.ke</a>, <a href="mailto:abhimabuga@gmail.com">abhimabuga@gmail.com</a></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Mr. James Charo Samaki</strong>&lt;br&gt;Veterinary Farms Manager&lt;br&gt;Directorate of Veterinary Services Nairobi, Kenya&lt;br&gt;Tel: 020 8043441, +0254 724 937 687&lt;br&gt;Email: <a href="mailto:infodvs@kilimo.go.ke">infodvs@kilimo.go.ke</a>, <a href="mailto:jamescharoo@yahoo.com">jamescharoo@yahoo.com</a></td>
</tr>
<tr>
<td>4.</td>
<td><strong>Mr. Ronald Kipkogei Kimitei</strong>&lt;br&gt;Senior Livestock Production Officer&lt;br&gt;Dairy Training Institute, State Department of Livestock&lt;br&gt;Naivasha, Kenya Tel: +254 50 50481, +254 724 641 560&lt;br&gt;Email: <a href="mailto:dtinaivasha@yahoo.com">dtinaivasha@yahoo.com</a>, <a href="mailto:ronaldkimitei@gmail.com">ronaldkimitei@gmail.com</a></td>
</tr>
</tbody>
</table>
5. **Mr. Charles Mwaniki Ngonyoku**  
Lecturer at Animal Health & Industry Training Institute – Nyahururu Ministry of Agriculture Livestock and Fisheries, State Department of Livestock 1-20300 Nyahururu,OffNyahururu/Olkalou Rd, Nyahururu, Kenya  
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**Liberia**

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11. **Mr. Samuel Fromayan**  
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<table>
<thead>
<tr>
<th>Malawi</th>
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<tbody>
<tr>
<td>12. Mr. Matembo Zebron Nyasulu</td>
<td>Assistant Veterinary Officer</td>
</tr>
<tr>
<td>Ministry of Agriculture, Irrigation and Water Development,</td>
<td>Department of Animal Health and Livestock Development.</td>
</tr>
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</tr>
<tr>
<td>Email: <a href="mailto:matembonyasulu@gmail.com">matembonyasulu@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>13. Mr. Aubrey Bongozo Mugala</td>
<td>Agriculture Extension Development Officer</td>
</tr>
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</tr>
<tr>
<td>Email: <a href="mailto:aubleymugala@gmail.com">aubleymugala@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>14. Ms. Nyandule Ivy</td>
<td>Agriculture Extension Development Officer</td>
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<td>Chiradzulu District Agriculture Office</td>
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</tr>
<tr>
<td>Email: <a href="mailto:ivynyandule@gmail.com">ivynyandule@gmail.com</a>, <a href="mailto:isaacsembaphiri@gmail.com">isaacsembaphiri@gmail.com</a></td>
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<thead>
<tr>
<th>Mongolia</th>
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<tbody>
<tr>
<td>15. Ms. Tsoodol Serchmaa</td>
<td>Serologist,</td>
</tr>
<tr>
<td>State Central Veterinary Laboratory, Government Building #9,</td>
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</tr>
<tr>
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<td>Email: <a href="mailto:serchmaa@scvl.gov.mn">serchmaa@scvl.gov.mn</a>, <a href="mailto:serchmaa98@gmail.com">serchmaa98@gmail.com</a>,</td>
</tr>
<tr>
<td><a href="mailto:zaya@mofa.gov.mn">zaya@mofa.gov.mn</a>,</td>
<td></td>
</tr>
<tr>
<td>16. Ms. Tsogvoo Oyundelger</td>
<td>Food Microbiologist,</td>
</tr>
<tr>
<td>Department of Food Hygiene and Drug Residue Testing Laboratory,</td>
<td>State Central Veterinary Laboratory,</td>
</tr>
<tr>
<td>Ministry of Food, Mongolian Agriculture and Light Industry,</td>
<td>Zaisan, P.O.Box.53/03, 11thHoroo, Khan-Uul District,</td>
</tr>
<tr>
<td>Ulaanbaatar, Mongolia</td>
<td>Tel: +976 70111050, +976 96667433</td>
</tr>
<tr>
<td>Fax: +976 70111050</td>
<td>Email: <a href="mailto:vetlabnet@scvl.gov.mn">vetlabnet@scvl.gov.mn</a>,</td>
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<tr>
<td>No.</td>
<td>Name</td>
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<td>17.</td>
<td>Ms. Munkhtuya Demberelsuren</td>
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<td>18.</td>
<td>Ms. Erdenejargal Oyunsoyombo</td>
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<td>19.</td>
<td>Mr. Khairkhan Khanddorj Nomgon</td>
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<td>Mr. Balgan Munkh-Erdene</td>
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<td>Ms. Margarida Dique Mussimbite</td>
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<td>Ms. Mo Zin Myint</td>
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<td>23.</td>
<td>Ms. Wai Wai Aung Min</td>
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<td>24.</td>
<td>Ms. Phyo Htet Kyaw</td>
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<td>25.</td>
<td>Ms. Nellie Florence Okullo</td>
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<td>26.</td>
<td>Mr. Patrick Lukooya</td>
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<td>Mr. James Katamba Bugeza</td>
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<td>Mr. Christmas Dismas Baterana</td>
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<td>29.</td>
<td>Mr. Emmanuel Hasahya</td>
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Inauguration of the program

Feed the Future India Triangular Training on “Modern Poultry Management” was inaugurated on 02.05.2018 by Dr. Joykrushna Jena, Deputy Director General (Fisheries Science & Animal Science), ICAR, New Delhi in presence of Smt. V. Usha Rani, Director General, MANAGE, Dr. R.N. Chatterjee, Director, ICAR-DPR and Dr. Saravanan Raj, Director (Ag. Extn.), MANAGE. Dr. U. Rajkumar, Programme co-ordinator, scientists and staff of the Directorate attended the inaugural programme.

Group photo with DG MANAGE & DDG ICAR-DPR
2 METHODOLOGY:

2.1 Training Methodology

The training program was participatory in nature that included lectures, panel discussions, group discussions, case studies, hands on experience and field visits. Each participant was expected to contribute ideas and take part in group activities during various tasks. A back at Work Plan was in-built in the programme to ensure the transformation of learning into action at their workplace. The effectiveness of the training is proposed to be monitored after conducting pre and post tests to understand the impact of the training on the knowledge of the participants. A learner-centered approach was followed to orient the participants of “Modern Poultry Management”.

Different methodologies adopted for the program was as follows:

- Participatory approach.
- Participants were expected to contribute ideas and work in groups.
- Experiential learning methodology (Cross learning, field experiences)
  Interactive session with the faculty of Institute and Guest Speakers.
- Lectures, group discussions, panel discussions and field visits to National institutions, veterinary university and private industrial organizations.
- Special lectures/interactions with invited eminent personalities from the field.
- Group task assignment

About 30% time was devoted to lecture-cum-interaction sessions, 40% time on hands on practices in laboratories and field demonstrations and 30% time for institutional visits and interaction.

2.2 Study materials and resource persons

The study material including training manual, information brochures and books/booklets written by faculty and experts of ICAR-DPR on all the major themes were provided to the executives. The soft copies of all the presentations made during the sessions were also provided to the executives. In addition photographs of lectures, field visits and other important activities of program were also provided to the executives. To increase access to information and share knowledge on continuous basis, Wi-Fi as well as desktops with internet facility was provided during the training period.

In addition to the experts of different disciplines from the institute, renowned personalities from the industry and other organizations were invited to deliver lectures during the program.
Study materials/Brochures:
Day wise lecture sessions:

**Day 1: 01-05-2018**

<table>
<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Dr. M.V.L.N.Raju</td>
<td>Registration</td>
<td>Registration Kit arrangement</td>
</tr>
<tr>
<td>Dr. U. Rajkumar</td>
<td></td>
<td>1. Ice breaking session/Discussion on the course contents and logistics with the participant.</td>
</tr>
<tr>
<td>Dr.R.N.Chatterjee</td>
<td>An Overview of ICAR-DPR</td>
<td>1. Institute profile and role of DPR in poultry development.</td>
</tr>
<tr>
<td>Dr. L.L.L.Prince</td>
<td>Visit to labs</td>
<td>1. All the executives visited the Avian Health lab along with speakers.</td>
</tr>
<tr>
<td>Dr. Shanmugam M</td>
<td></td>
<td>2. Dr. Kannaki &amp; Dr. SuchitraSena explained about the Avian Health lab activities.</td>
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<td>3. Executives observed the experiments going on in Avian Health lab.</td>
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<td>4. All the executives went the Nutrition lab along with speakers.</td>
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<td>5. Dr. Rama Rao, Dr. Raju &amp; Dr. Prakash explained about the Nutrition lab activities.</td>
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<td>6. Executives were shown different analytical procedures in Nutrition lab.</td>
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<td>7. All executives went the Molecular Genetics lab along with speakers.</td>
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<td>8. Dr. T.K. Bhattacharya explained about the Molecular Genetics lab activities.</td>
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<td>9. Executives seen shown the latest equipments and explained about research methodologies followed in Molecular Genetics lab.</td>
</tr>
<tr>
<td>Dr. U. Rajkumar</td>
<td>Pre-Course evaluation of participants</td>
<td>Conducted the Pre Training Test to Executives on different aspects of poultry farming.</td>
</tr>
<tr>
<td>Dr. L.L.L.Prince</td>
<td>Introduction to chicken breeds</td>
<td>Introduced the executives to chicken breeds around the world</td>
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</tbody>
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### Day 2: 02-05-2018

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<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</table>
| Dr. U.Rajkumar       | Inauguration Function of Training Program                              | 1. Briefing about Training  
2. Interaction with Executives                                                             |
| Dr. U.Rajkumar       | Overview of poultry industry-Indian scenario                           | 1. Activities and Achievements of DPR  
2. Overview of poultry industry-Indian scenario.                                             |
| Dr. M.V.L.N.Raju     | Basic concepts of poultry nutrition                                   | He explained about basic concepts of poultry nutrition like Water, Carbohydrates, Fats, Proteins, Minerals and Vitamins. Examples Corn and Soybean meal, Ca & P, Salt, Supplemental lipids, Yellow pigmentation and Non-nutritive additives used for growth & disease control. |

### Day 3: 03-05-2018

<table>
<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Dr. S.K. Bhanja</td>
<td>Daily routine farm operations and farm management</td>
<td>1. Dr. S.K. Bhanja explained daily routine in farm operations and farm management, example a. Maintaining safe working practices, b. Managing and motivating a team, c. ensuring welfare of livestock, d. ventilation management, e. feed management, f. vaccinations, g. production performance, h. Record keeping</td>
</tr>
<tr>
<td>Dr. T.R.Kannaki</td>
<td>Biosecurity, common poultry diseases and their prevention and control</td>
<td>1.Dr. T.R. Kannaki explained about bio-security, common poultry diseases, their prevention and control. Bio-security practices and farm hygiene are implemented on poultry farms to reduce the risk of disease agents moving on to farm from outside sources.</td>
</tr>
<tr>
<td>Mr. Shravan Gattu</td>
<td>Poultry Litter management</td>
<td>1. Mr. Shravan Gattu explained- about Poultry Litter</td>
</tr>
</tbody>
</table>
management and Uses of poultry litter.
2. Always we have to keep clean the litter.
3. Litter bedding should be dry.
4. Poultry litter can be burnt directly as fuel source to produce heat energy.
4. Bio-gas can be produced with poultry litter.

### Day 4: 04-05-2018

<table>
<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
</table>
| Dr. L.L.L. Prince Dr. M. Shanmugam | Field visit Unit – SH Protein food Pvt. Ltd, | 1. Mr. Anand, Manager of S.H. Proteins welcomed and addressed the executives.  
2. He explained the activities of S.H. Proteins.  
3. The executives visited production facility of the company.  
4. Executives enquired about technologies for implementing in their countries. |
| Dr. L.L.L. Prince Dr. M. Shanmugam | Visit to ICAR-NRC on Meat | 1. Director Dr. S. Vaithiyanathan explained about NRCM’s mandate and activities to executives.  
2. Dr. M. Muthukumar showed the NRCM’s labs and machinery unit and explained how works.  
3. Executives observed different machineries which are present in the lab and were demonstrated how it works, and explained about the purpose for which those machines were used.  
4. Dr. S. Kalpana explained about Veterinary Pharmacology lab activities and functions.  
5. Dr. Rituparna Banerjee gave a picture about Meat and its products and preparation.  
6. Executives enjoyed while |
preparation of meat products and tasted the product which they have prepared by NRCM staff and appreciated the technique.
7. Executives raised various questions related to meat industry and products to which speakers gave satisfactory answers.

<table>
<thead>
<tr>
<th>Day 5: 05-05-2018</th>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
</table>
| Dr. Chandan Paswan | Hatchery management | 1. Dr. Chandan and Mr. Rajeshwar Goud explained about Hatchery management.  
2. Disinfecting hatching eggs is a critical control point (CCP) in the poultry production chain, aimed at reducing the introduction of pathogens into the hatchery during the production of healthy day-old-chicks.  
4. Executives raised the questions and speakers clarified with their answers. |
| Mr. Rajeshwar Goud | | |
| Dr. T.K. Kananaki | Post-mortem examination and diagnosis of poultry diseases | 1. Dr. Kannaki explained the examination and diagnosis of poultry diseases through post-mortem examination.  
2. Post-mortem examination should relate to the clinical signs seen and organs obviously affected.  
3. The birds are examined every day for diagnosis of poultry diseases.  
4. Executives shown keen interest in post-mortem and raised questions and got clarified from speaker. |
| Dr. L.L.L. Prince  
Dr. M. Shanmugam | Visit to Veterinary College  
(Poultry and Dairy Farm) | VISIT TO POULTRY FARM  
1. Drs. Prince and Shanmugam along with executives visited the Poultry Research Farm of Veterinary college, Rajendranagar, Hyderabad.  
2. Dr. Hanumantha Rao welcomed and explained different types of birds, their research and development on ducks, emu, guinea fowl and turkey.  
3. Executives visited sheds housing different types of birds. |
| Dr. L.L.L. Prince  
Dr. M. Shanmugam | Visit to ICAR-IIMR  
(Millets) | VISIT TO DAIRY FARM:  
1. Drs. Prince and Shanmugam along with executives visited the Veterinary College Dairy Farm.  
2. Dr. Rathod welcomed and explained different types of animals like buffalos, cattle and their research on fodder and dairy development.  
3. Executives enjoyed the visit and taken some photographs of different breeds of animals. |
| Dr. L.L.L. Prince  
Dr. M. Shanmugam | Visit to ICAR-IIMR  
(Millets) | VISIT TO POULTRY FARM  
1. Drs. Prince and Shanmugam along with executives visited the Poultry Research Farm of Veterinary college, Rajendranagar, Hyderabad.  
2. Dr. Hanumantha Rao welcomed and explained different types of birds, their research and development on ducks, emu, guinea fowl and turkey.  
3. Executives visited sheds housing different types of birds. |
Dr. L.L.L. Prince
Dr. M. Shanmugam

Visit to ICAR-IIRR (Rice)

1. Drs. Prince and Shanmugam along with executives visited the ICAR-IIRR.
2. Dr. P. Muthuraman welcomed and introduce to executives.
3. He described about the ICAR-IIRR organization, its mandates, activities and achievements.

Day 6: 06-05-2018

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<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Homework, Attending Personal Work and Religious Worship</td>
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Day 7: 07-05-2018

<table>
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<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
</table>
| Dr. S.K. Bhanja    | Daily routine farm operations and farm management | 1. Dr. S.K. Bhanja explained about daily routine in farm operations and management.  
2. He shared about plan, implement, and manage rearing unit production.  
3. He explained about feeding and watering systems, how problems are identified, and adjustments are made to meet poultry requirements, in accordance with the planned programme.  
4. He also explained about vaccination, parasite control, medication, vermin control, hygiene, health status sampling, bio-Security.  
5. He explained about debeaking, with practical demonstration, which some executives practiced on their own. |

| Dr. S.V. Rama Rao  | Nutritional requirement of layer, broiler and least cost diet formulations and computation | 1. Speaker explained about nutritional requirement of layer, broiler and least cost diet formulations and computation.  
2. He elaborated that chickens vary greatly according to the purpose for which they have been developed and methods of feeding differ for these kinds of |
chicken.
3. He explained about formulation through computer program application due to this feed ingredients proportion will be monitored properly.

<table>
<thead>
<tr>
<th>Expert</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dr. G. Deve Gowda</td>
<td>Group discussion-Rising feed costs: Way forward</td>
<td>1. Drs. Deve Gowda and Raju organized this group discussion about Rising feed costs: Way forward. 2. Executives participated very actively, they were formed into 4 groups and each group headed by one person, after discussion among themselves the group leader explained the views and ideas to meet the future challenges.</td>
</tr>
<tr>
<td>Dr. M.V.L.N. Raju</td>
<td>Case study: Poultry farm to poultry industry-A successful Journey</td>
<td>1. Mr. Sathyanarayana Raju garu explained his success story to the executives to inspire them towards poultry industry. 2. He shared many important information related to poultry industry with executives.</td>
</tr>
<tr>
<td>Dr. Santosh Haunshi</td>
<td>Poultry Housing management</td>
<td>Dr. Santosh Haunshi explained about poultry housing, and executives enquired about technologies to implement their countries.</td>
</tr>
</tbody>
</table>

**Day 8: 08-05-2018**

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<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. M. Shanmugam</td>
<td>Visit to MANAGE, Hyderabad</td>
<td>1. Dr. Shanmugam along with the executives visited MANAGE, Hyderabad. 2. Dr. Usha Rani, Director General MANAGE, welcomed and addressed the Participants. 3. The executives were briefly explained about activities of MANAGE. 4. Executives also visited different sections of the institute and were appraised about their activities.</td>
</tr>
<tr>
<td>Dr. M.R. Reddy</td>
<td>Emerging and re-emerging diseases of poultry-</td>
<td>1. Dr. Reddy explained about Emerging and re-emerging diseases of poultry-</td>
</tr>
</tbody>
</table>
contingency plans to control Avian Influenza
diseases of poultry-contingency plans to control Avian-Influenza.
2. To respond to emerging and re-emerging infections, it is necessary to understand the interactions between microbial pathogens and their hosts and the impact of environmental and social factors on these interactions.

<table>
<thead>
<tr>
<th>Dr. B. Prakash</th>
<th>Feed compounding/mixing</th>
<th>1. Dr. B. Prakash explained about feed compounding/mixing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. B. Prakash</td>
<td>Visit to tribal village (Bhovoji -Thanda)</td>
<td>1. Drs. Prakash, Rajkumar, Bhanja&amp;Shanmugam along with the executives visited the DPR adopted tribal village (BhovojiThanda) which is located 60km from the institute. 2. Executives observed and noted the intervention of DPR technologies on poultry rearing in the adopted village.</td>
</tr>
</tbody>
</table>

**Day 9: 09-05-2018**

<table>
<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. S.V. Rama Rao</td>
<td>Field visit – Suguna feed plant</td>
<td>1. Drs. Rama Rao and Rajkumar along with executives visited the Suguna poultry feed mill the 2nd largest feed mill in the country. 2. Dr. James (Manager) welcomed the executives and explained various types of machineries and their use.</td>
</tr>
<tr>
<td>Dr. U. Rajkumar</td>
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</table>

**Day 10: 10-05-2018**

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<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Dr. P.S. Mahesh</td>
<td>Group discussion – Welfare/ethical issues in poultry production</td>
<td>1. Drs. Mahesh &amp; Raju organized group discussion on Welfare/ethical issues in poultry production. 2. All executives were split into 4 groups and each group discussed on the topic and came out with probable solutions on</td>
</tr>
<tr>
<td>Dr. M.V.L.N. Raju</td>
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<tr>
<td>Expert</td>
<td>Topic</td>
<td>Description</td>
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</tr>
<tr>
<td>Dr. P.S. Mahesh</td>
<td>Diversified poultry production: scope and opportunities</td>
<td>1. Dr. P.S. Mahesh explained about diversified poultry production its scope and opportunities.</td>
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<tr>
<td></td>
<td></td>
<td>2. And he explained about CPDO, and its functionalities in the area of diversified poultry.</td>
</tr>
<tr>
<td>Sri. C.V. Rao</td>
<td>Case study-Feed and feed industry: Experiences and road to success</td>
<td>1. Shri C.V. Rao &amp; Dr. S.V. Rama Rao, explained about Case study-Feed and Feed industry, experiences and road to success.</td>
</tr>
<tr>
<td>Dr. S.V. Rama Rao</td>
<td></td>
<td>2. Executives asked questions to the speakers and received answers.</td>
</tr>
<tr>
<td>Dr. M. Shanmugam</td>
<td>Chicken reproductive physiology, semen collection and artificial insemination</td>
<td>1. Lecture on chicken reproductive physiology was given and executives were practically demonstrated the process of semen collection and artificial insemination.</td>
</tr>
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</table>

### Day 11: 11-05-2018

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<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Mr. K.G. Anand</td>
<td>Business Opportunities in Indian -Poultry Industry</td>
<td>1. Mr. Anand explained about growth of poultry industry in the country and business opportunities in Indian poultry industry.</td>
</tr>
<tr>
<td>Dr. Dinesh Bhonsle</td>
<td>Group discussion-Antibiotic residues in poultry: Threats, challenges and way forward</td>
<td>1. Dr. Dinesh Bhonslegave lecture about Antibiotic residues in poultry and organized group discussion on this topic.</td>
</tr>
<tr>
<td>Dr. U. Rajkumar</td>
<td>Group discussion -Rural poultry: Role of DPR in propagation of backyard poultry</td>
<td>1. Dr. U. Rajkumar elaborated the role of DPR in backyard poultry in the country. 2. After the Lecture executives participated in a group discussion on this topic.</td>
</tr>
<tr>
<td>Dr. Suresh Devatkal</td>
<td>Post-harvest processing and value addition in poultry</td>
<td>1. Dr. Suresh Devatkal explained about Post-harvest processing and value addition in poultry. 2. He elaborated the technology of post-harvest process and value addition in poultry.</td>
</tr>
<tr>
<td>Dr. B. Prakash</td>
<td>Cultural evening</td>
<td>1. All the executives</td>
</tr>
</tbody>
</table>
2. A dance troupe was engaged on this occasion where traditional Indian dances were performed by them.

**Day 12: 12-05-2018**

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<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Dr. M. Shanmugam</td>
<td>Visit to places of cultural and historical importance</td>
<td>1. Executives visited cultural and historical importance places like Charminar, Golconda, and Museums.</td>
</tr>
<tr>
<td>Dr. Leslie Leo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prince</td>
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**Day 13: 10-05-2018**

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<tr>
<th>Expert</th>
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<tbody>
<tr>
<td>Dr. U. Rajkumar</td>
<td>Homework, Attending Personal Work and Religious Worship</td>
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</tr>
<tr>
<td>Dr. L.L.L. Prince</td>
<td></td>
<td></td>
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<tr>
<td>Dr. M. Shanmugam</td>
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**Day 14: 14-05-2018**

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<thead>
<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. U. Rajkumar</td>
<td>Back at work plan – presentation by executives</td>
<td>1. Each executive choose a topic of their interest and presented their plans of work in their respective countries after going back to their workplace.</td>
</tr>
<tr>
<td>Dr. L.L.L. Prince</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. M. Shanmugam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Saravanan Raj</td>
<td>Valedictory Function</td>
<td>1. Chief guests His Excellency Mark A. White, Mission Director USAID-India, H.E. Mrs. Florence Weche Kenyan High Commissioner, New Delhi, H.E. Mr. George CrytoneMkondiwa, Malawi High Commissioner, New Delhi and DG. Manage &amp; Director DPR, addressed Valedictory function gave away course completion certificates to the executives.</td>
</tr>
<tr>
<td>Dr. U. Rajkumar</td>
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2. Dr. U. Rajkumar, Program co - ordinator presented a brief report on the training program.
3. The executives shared their opinion about this programme and said that the training was very useful.
### Day 15: 15-05-2018

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<tr>
<th>Expert</th>
<th>Topic</th>
<th>Description</th>
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</table>
| Dr. T.K. Bhattacharya         | New approaches for poultry productivity improvement       | 1. Dr. T.K.Bhattacharya explained about latest technologies for poultry-
|                               |                                                             | productivity improvement.                                                  |
| Dr. T. Kotaiah                | Scope of poultry production in African and Asian countries | 1. Dr. T.Kotaiah explained about poultry production status and opportunities |
| Dr. U. Rajkumar, Dr. L.L.L. Prince, Dr. M. Shanmugam | Post course evaluation and Feedback | 1. The executives underwent an evaluation test for assessing their knowledge gain from the training program. They were also provided a proforma to rate the sessions that were conducted during training program. |
Practical and hands on sessions at ICAR-DPR:
2.3 Field Visits

The executives were taken on field visits to various organizations i.e. SH Protein Food Pvt Ltd (Srinivasa Hatcheries), ICAR-NRC (National Research Centre on Meat), P.V. Narasimha Rao Telangana Veterinary University (Poultry and Dairy Farm), ICAR-IIMR (Indian Institute of Millet Research), ICAR-IIRR (Indian Institute of Rice Research), Tribal Village (Bhovoji Thanda), Suguna Feed Plant, MANAGE and places of cultural and historical importance.

2.4 Visit to Srinivasa Protein Food Private Limited

The participants visited S.H. Protein Food Pvt Ltd, on 4th May, 2018. Mr. Anand, Manager of S.H. Proteins welcomed and addressed the executives on the activities of S.H. Proteins. The executives visited production facility of the company and enquired about suitable technologies for implementing in their countries.
2.5 Visit to ICAR-NRCM: National Research centre on Meat

The Participants were taken to National Research Centre on Meat, 4th May 2018, Chengicherla and Director Dr. S. Vaithiyathan explained about NRCM’s mandate and activities to executives. Dr. M. Muthukumar showed the NRCM’s labs and machinery units and explained about their uses in meat processing. Dr. S. Kalpana explained about Veterinary Pharmacology lab activities and functions. Dr. Rituparna Banerjee gave an overview about meat and its products and preparation. Executives observed the preparation of meat products by NRCM staff, tasted the preparations and appreciated. Executives raised various questions related to meat industry and products to which speakers gave satisfactory answers.
2.6 Visit to P.V. Narasimha Rao Telangana Veterinary University (Poultry and Dairy Farms)

Executives visited the Poultry Research Farm of Veterinary College, Rajendranagar, Hyderabad. Dr. Hanumantha Rao welcomed the participants and explained about different types of birds, research and development on ducks, emu, guinea fowl and turkey. Executives visited the poultry farm sheds housing different types of birds.

Executives also visited the Veterinary College Dairy Farm. Dr. Rathod in-charge of dairy farm explained about dairy animals like buffalos, cattle and research on fodder and dairy development.
2.7 Visit to the ICAR-IIMR: Indian Institute of Millet Research

The executives visited ICAR-IIMR, Rajendranagar on 5th May 2018. Kum.Kiranmayi welcomed, explained and took the participants around CoE lab and farm machinery unit explaining its functioning. CoE lab staff prepared cookies, puffs and multi millets that were then served to the executives. Executives appreciated the taste of food items and preparation techniques.

2.8 Visit to the ICAR-IIRR: Indian Institute of Rice Research

The executives visited the ICAR-IIRR. Dr.P.Muthuraman welcomed the executives and explained about the ICAR-IIRR organization, its mandates, activities and achievements.
2.9 Visit to MANAGE: National Institute of Agricultural Extension Management

The executives visited the National Institute of Agricultural Extension Management (MANAGE) on 08.05.2018 and interacted with Smt. V. Usha Rani, Director General and Dr. Saravanan Raj, Director (Agricultural Extension) MANAGE. The executives were briefly explained about activities of MANAGE. Executives also visited different sections of the institute and were appraised about their activities.
3.0 Visit to Tribal Village (Bhovoji-Thanda):

The executives visited the DPR adopted tribal village (Bhovoji Thanda) located 60km from the institute. Executives observed and noted the interventions of different DPR technologies on poultry rearing in the adopted village. The participants interacted with the villagers and had first hand information about issues on backyard poultry farming. A tribal cultural programme and dinner was organized by villagers for the visiting executives.
3.1 Field Visit to SUGUNA Feed Plant

Drs. Rama Rao and Rajkumar along with executives visited the Suguna poultry feed mill the 2\textsuperscript{nd} largest feed mill in the country. Dr. James (Manager) welcomed the executives and explained various types of machineries and their use.
3.2 Visit to Places of Cultural and Historical Importance

The executives visited different cultural and historical importance places in Hyderabad like Charminar, Chowmahalla palace, Mecca Masjid, Purani Haveli, Salar Jung Museum, Nizam Museum, Golkonda Fort and other historical places in the city.
Cultural evening
3.3 Life Membership to professional bodies and journals

All the executives were made life members of ‘Indian Journal of Poultry Science’ (IJPS), a leading peer-reviewed Indian journal in the field and an official publication of the Indian Poultry Science Association (IPSA), Izatnagar, Uttar Pradesh. The publication is aimed at providing access to academicians, researchers and industry professionals from across the globe to publish their work on all aspects of poultry science through research papers, short communications and review articles. As life members, they will receive the Journal periodically that will help in updating their knowledge in the field of poultry science.

3.4 Back-at work-plans

Based on the information, knowledge, study material and exposure visits during the program, the executives prepared and presented individual “Back-at-work-plans” which would help in operationalizing the relevant concepts learned during the program in their respective countries.
Ms. Kegomoditswe Bula
Senior Scientific Officer
Ministry of Agricultural Development
And Food Security/ Department of Animal Production
P.O.Box 1429, Palapye Botswana
Tel: 0267 4924741/ 00267 4920075, 0267 73104385/ 0267 72751576
Email:  kbula@gov.bw , joelbula@gmail.com

Activity: Implementing Artificial Insemination on Poultry to Improve Fertility and Increase Productivity of Indigenous poultry.

Problem:
 Low Fertility rate due to high sex ratio of male to female.
 Heavy breeds are unable to complete mating process.
 Low quality breeds with low slaughter weight (dress- Mass weight) and low egg production.

Indian Experience: Poultry breeders in India adopted the technology of artificial insemination to increase productivity of the birds and they have actual achieved high fertility rate of 80-87%.

Place: The activity will be covered in Palapye Central Region in Botswana. The area is geographically located at 22 33’ 0” South and 27 8’ 0”.

Target Group:  1 Poultry farmer for piloting the activity.
 10 Poultry farmers to learn the technique.
 6 Poultry officers or extension officers.
 Poultry production cooperatives.

Duration: 4 Months

Expected End Results:  Increase in poultry productivity
 Increase in fertility
 Improved local breeds
 Adoption of Artificial Insemination Technique

Any other Information:
Ms. Mary Adhiambo Ochieng (Kenya)

Ms. Mary Adhiambo Ochieng Ondieki
Chief Veterinary Officer
Directorate of Veterinary Services, Kenya
Tel: 020-8043441, +254723440400
Email: infodvs@kilimo.go.ke, abhimabuga@gmail.com

Activity: Skilled Veterinary Extension services for an improved productivity in rural poultry in Kenya.

Problem:
- Low poultry production and productivity in rural Kenya in spite of availability of improved Rural (Kienyeji) breeds.
- Farmers are either not aware or have not understood the benefits of rearing improved rural poultry varieties.
- There is need to develop veterinary extension skills in animal health service providers.

Indian Experience:
- Five decades ago, India had low productivity from rural poultry Kenya.
- Rural poultry became the government agenda
- The Government recognized the contribution of rural poultry to the total national production of poultry meat and eggs at 29.8% and set out to improve this.
- Government set up structures: research institutions (Directorate of Poultry Research) & National egg coordination committee (NECC) to address the situation.
- DPR objective to develop improved native chicken varieties for improved performance.
- Cultural preferences were considered and area specific breeds were developed.
- A standard vaccination protocol against recognized poultry diseases was provided for rural farmers.
- A strong relationship exists between research institutions and farmers.
- India has seen an increase in production of rural poultry meat and eggs which fetch premium price.
- This has improved rural house hold nutrition and income.

Place: Nairobi Kenya
Target Group: Graduate animal health and production interns of 2016-2017 academic year.
Duration: Sensitization will take one month. The interns will suggest how long it
will take them to raise money for the training

**Expected End Results:**
- 200 interns equipped with skills of extension and a positive attitude.
- An increase in farmer education on the availability of improved backyard poultry in the country and elsewhere especially India.
- Improved management of backyard poultry for egg and meat production.
- Good disease prevention and control by implementing vaccination programs correctly.
- Improved household nutrition.
- Improved rural household income.
- Successful participants will develop an attitude change towards poultry farming in general.

**Any other Information:**
Commercial production of broiler and layers is carried out in the peri-urban areas by farmers who are more enlightened and entrepreneurial in nature. These will also benefit from quality extension services even as the rural farmer gains.
Mr. James CharoSamaki (Kenya)

Mr. James CharoSamaki  
Veterinary Farms Manager  
Directorate of Veterinary Services  
kabete Code 00625 kangemi,  
Nairobi, Kenya  
Tel: 020 8043441, +0254 724 937 687  
Email: infodvs@kilimo.go.ke, jamescharoo@yahoo.com

Activity: Sensitize and follow up of all veterinary farm managers to embrace modern poultry management skills especially on the role of backyard poultry industry in poverty alleviation and livelihood security in Kenyan rural people through prevention and control of poultry diseases.

Problem: Lack of proper training on poultry disease management. (Prevention and control of poultry disease especially in backyard poultry farming).

Indian Experience: India has nearly 70% of its population living in the rural areas. The commercial poultry production is done in the urban and peri-urban areas where market for the poultry products is assured.


Target Group:  
- Veterinary farm managers  
- Veterinary farm staff at AHITI Ndomba.  
- Animal health students.  
- Local poultry farmers.

Duration: 1st June 2018 –31st December 2018 (6 Six months).

Expected End Results:  
- Reduce poultry mortality - Especially from the backyard poultry farmers’ reports.  
- More farmers take up backyard poultry thus improved nutritional levels and economic levels too.  
- Fear of not embracing backyard poultry farming due to disease especially due to Newcastle disease is reduced.  
- Students acquire practical skills in how to handle poultry diseases (poultry disease management).

Any other Information: Poultry diseases have been the main hindrance for most backyard rural poultry farmers to continue keeping poultry.

The worst disease which always clears the backyard poultry in Kenya is having Newcastle disease despite the availability of vaccines in the market. Therefore lack of information and clear guidelines on proper vaccination programs on poultry has made potential poultry farmers to become reluctant to venture into poultry farming for fear of poultry diseases. Therefore more efforts should be put more into education of farmers on prevention and control of poultry diseases. In addition, such farmers should be aware of existence of fast maturing and diseases tolerant breeds /varieties of poultry (chicken) in Kenya.
Mr. Ronald Kipkogei Kimitei (Kenya)

Mr. Ronald Kipkogei Kimitei
Senior Livestock Production Officer
Dairy Training Institute, State Department of Livestock
Naivasha, Kenya Tel: +254 50 50481, +254 724 641 560
Email: dinaivasha@yahoo.com, ronaldkimitei@gmail.com

Activity:
Development of competency based curriculum training poultry management courses at 3 levels i.e. short course (1-2 weeks), certificate (3 months-1 year) and diploma (2 years) levels.

Problem:
❖ Lack of curricula specifically designed for poultry training. Training is broad covering all areas of livestock production and management.
❖ Current curricula in Kenya are more knowledge based than skill based, lacking a systematic or step wise approach of practical learning especially in technical aspects of poultry management.

Indian Experience:
Methodologies and technical practices for practical training especially in the following areas
❖ Hatchery management;
   -- Egg sorting, grading, handling, setting, candling and transfer to hatchery boxes/unit.
   -- Handling, tagging, sexing and vaccination of day old chicks.
❖ Poultry nutrition;
   -- Poultry feeding requirements
   -- Nutrient sources and their nutritive values
   -- Feed formulation software
   -- Feed processing and quality assessment
❖ Prevention, control and management of poultry diseases;
   -- Biosecurity practices and measures
   -- Signs of poultry diseases and diagnosis pointers (ante and post mortem)
❖ Poultry housing;
   -- House designs
   -- Spacing requirements
-- Litter management

- Poultry breeding:
  -- Breeding system and practices
  -- Semen collection and artificial insemination
  -- Pedigree and Performance recording

- Post harvest handling of poultry and poultry products:
  -- Poultry slaughter procedures
  -- Poultry meat processing
  -- Production of different value-added poultry products
  -- Handling of poultry by-products (manure, feathers, blood, bones etc)

**Place:** Ministry of agriculture and Irrigation, State Department of Livestock, Livestock Training Institutes - Dairy training institute, Naivasha, Nakuru County, Kenya.

**Target Group:**

- Practicing farmers and entrepreneurs along with the poultry value chain.
- Individuals interested in starting up farms or businesses in poultry management.
- Secondary school leavers wishing to pursue certificate or diploma courses specifically in poultry management.

**Duration:** May 2018 – November 2018 (7 Months)

**Expected End Results:** Draft curricula for training at Levels III, IV and V in poultry management.

**Any other Information:** The program is funded by a German development agency known as GIZ (Deutsche Gesellschaft fur International Zusammennarbeit) through its project dubbed ‘Food Security for improved Agricultural Productivity in Western Kenya’.
Mr. Charles Mwaniki Ngonyoku
Lecturer at Animal Health & Industry Training Institute – Nyahururu Ministry of Agriculture Livestock and Fisheries, State Department of Livestock 1-20300 Nyahururu, Off Nyahururu/Olkalou Rd, Nyahururu, Kenya
Tel: +254721325453,
Email: charlesngonyoku09@yahoo.com

Activity: Breed improvement in local/indigenous poultry.
Problem: Farmers in my locality mostly select breeding cocks from their flock. These results to inbreeding causing low growth rate, reduce mature weight and low egg production.

Indian Experience:
- Prevention and control of poultry diseases.
- Good breeding program
- Good biosecurity measures.

Place:
- Animal Health and Industry Training Institute (A.H.I.T.I)
- Nyahuru, Nyandarua County, Kenya.
- Nyandarua County, oljoroorok sub-county, oljoro location (mandaraka water SHG).


Duration: 6 Months (1st June 2018 – 31st December).

Expected End Results:
- 160 students trained in modern poultry management
- 150 members of mandaraka water SHG trained on breeding cock selection and other aspects of modern poultry management.

Any other Information:
Mr. Elijah MunyaoMunguti
Senior Veterinary Officer
Ministry of Agriculture, Livestock & Fisheries,
Directorate of veterinary services 32 - 10300,
Kerugoya, Kenya
Tel: +254723438288,+254729893864
Email: ahitindomba@gmail.com , mungutie@gmail.com

Activity: Training of veterinary service providers on poultry farm management and biosecurity, Prevention and control of poultry diseases for backyard chicken.

Problem: In Kirinyaga County, the demand for indigenous chicken meat and eggs is higher than supply despite the fact that most households keep backyard poultry. Poor management and disease outbreaks are a major constraint for decrease in production of poultry in the area. Confirmatory diagnosis during outbreaks isn’t practiced by most practitioners leading to misdiagnosis therefore complicating the situation.

Indian Experience:
- Proper farm management practices,
- Proper biosecurity measures,
- Prevention and control of poultry diseases.


Target Group: Government and private Veterinary surgeons and veterinary para-professionals in Kirinyaga County.


Expected End Results:
- Extension officers trained on modern poultry management and biosecurity and disease, control and prevention.
- Increase uptake of backyard poultry production.
- Increase supply of chicken meat and eggs in Kirinyaga County.

Any other Information:
Mr. Evans MukhuchiMakokha
Senior Assistant Director
Livestock Production
State Department of Livestock, Ministry of Agriculture and Irrigation
PO Box 34188 00100 Nairobi, Kenya.
Tel: +254725828249, 774187295
Email: evansmakokha69@gmail.com

Activity:
- Brief the Director of Livestock production
- Present to technical staff at ministry headquarters back to office report.
- Hold discussion with section heads in charge of livestock farms, sheep and goats stations;
- Train officer’s in-charge of livestock farms and sheep & goat station.
- Hold discussions with Director of Non ruminant research station – KALRO Naivasha for supply chicks or eggs.
- Farms and stations to keep chicken for eggs production.
- Hatching of eggs and selling day old chicks or month old chickens to the farmers.

Problem:
- Food and nutrition security is one of the main challenges in the rural household.
- Inadequate chick production
- Poor chick and breed quality
- Low scale of production and productivity
- Poor feed quality and costs,
- High disease incidence.

Indian Experience:
- Advanced technology along the poultry value chains.
- Well organized indigenous poultry production system.
- India has well organized breeding programs for indigenous chicken.
Breeding of improved chicken supply to the farmers.
Hatching of chicks to support supply of quality chicken to farmers.

**Place:**
This activity will be implemented in the national sheep and Goats station and livestock farms which are intergrading poultry with ruminants.
- Macalda sheep and Goat station – Migori County (Lake Region)
- Witu Livestock improvement Farm (costal region)
- Marimanti sheep and Goat station – upper Eastern region
- Mwatate livestock Farm – upper costal and lower eastern regions.
- Kimose sheep and Goats station **- Rift valley-region.

**Target Group:**
- 35 technical staff at headquarter
- 24 technical officers from livestock farms sheep & goats station
- 200 farmers

**Duration:**
6 Months starting 21st May 2018.

**Expected End Results:**
- Increase in supply of quality chicken
- Number of farmers keeping improved chicken increased.
- Increase in productivity of indigenous chicken
- Increase incomes of rural farmers
- Increase in consumption chicken meat and eggs.

**Any other Information:**
There will be need to focus also on feeding of indigenous chicken to enhance production by use of alternative feed resources and making feed resources and making feed formulations for indigenous chicken. Development of policy and legal framework will create a conductive environment for the poultry industry. Formation of cooperative/user groups will support input supply and marketing. Development of poultry processing and value addition facilities through public private partnership is critical in creating market for poultry, and poultry products. Government support to consumption of poultry products will create local market and spur production.
Ms. Yeanua Angela Kehleay
Community Training Officer
Ministry of Agriculture Old LPRC Road,
Somalia Drive, Liberia
Tel: +231880445262/770140372
Email: yeanua89@yahoo.com

Activity: The Establishment of Backyard poultry farming beginning with 20 broiler birds, 15 hen and 5 cocks.

Problem:
- The lack of poultry industry.
- Lack of farmers interested in poultry farming.
- High demand of poultry meat.

Indian Experience:
- In India, I’ve experienced that the millionaires today are poultry farmers, who started with a little amount and now, they are successful.
- In modern poultry farming such as
  -- Poultry housing
  -- Feeding (Nutrition)
  -- Poultry health care
  -- (Medicine)
  -- Biosecurity
- Artificial collection of Semen and Incineration and debeaking.

Place:
- Town/village: Tolobliah
- District: Kokoyah
- County: Bong
- City: Gbarnga
- Country: Liberia

Target Group: Community farmers

Duration: 6 Months

Expected End Results:
- Increase in Yield, Income etc.
- I will be able to produce 400 broilers stock in a month
- Poultry Meat will be available on the market.
- I will be able to generate the sum of 6,000.00 Liberian Dollars monthly.

Any other Information:
Mr. James K Dorbor (Liberia)

Mr. James K Dorbor  
Technician  
Ministry of Agriculture  
P.O.Box 10-9010 1000 Monrovia 10, Liberia  
Tel: +231-70096854  
Email: pwuo@moa.gov.lr

Activity:

Problem:  
- The Housing of Poultry Animals (Birds)  
- Low Production  
- Lack of Disease Control  
- Pest Management  
- Rodent Control

Indian Experience:  
- Lighting system (Light Management)  
- Site allocation (Selection)  
- Orientation of House

Place:  
- Bernard farm community – Paynesvill city, Moudlia-Liberia.  
- Lofa County – Voinjamaheity- Liberia.

Target Group:  
- 3-4 current poultry farmers  
- 2-3 Villager with the desire for the field  
- Agriculture Officers.

Duration:  
6 Months.

Expected End Results:  
- Protection of chicken (Birds) from Sun, Extreme variation of temperature, rain, Wind, Predators etc.  
- Reduction in Mortality rate.  
- Increase in Profitability in poultry production.  
- Best the poultry sector in the country.

Any other Information:
Mr. George KonhMatiah (Liberia)

Mr. George KonahMatiah
District Agriculture Officer
Ministry of Agriculture Old LPRC Road,
Somalia Drive Liberia.
Tel: +231777451032/886838320
Email: georgematiah2014@gmail.com

Activity: Modern Poultry Management in Liberia with rural farmer Involvement.

Problem:
- Lack protein meat (poultry) as bush meat is no longer available.
- Lack of encouragement among poultry farmers
- Lack coordination among farmers to produce in a sustainable manner.

Indian Experience:
- Mobilize potential poultry farmers per clan, targeting for clans.
- Conduct one day awareness meeting on Indian experiences and plan for Africa involvement in feed the Future (FTF) program.
- Establish a demonstration sites per clan using available local materials, breeds.
- To create motivation that may lead to Poultry Farmer Association.

Place: The Four clan headquarters and city:
1. Sehylgboy – Sanniquelli City
2. Yarpea – DusTiyee Town
3. Yarmine – Gbapa Town
4. Beingarr – Garrta City

Target Group:
- Potential poultry farmers
- Sanniquellie City
- Ganta City
- Tiayee Town
- Gbaja Town
- Local Authority

Duration: 5 to 6 Months.

Expected End Results:
- Four potential poultry farmers groups established in four clans of sanniqellie, Mahn district Nimba County, Liberia.
- The availability of locally improved poultry sites will be established
- The establishment of poultry farmer’s association, will be initiated for phase 2 of the project.
- Local poultry farmers in the groups will be trained in modern poultry management locally.

Any other Information: Looking forward to manage (FTF ITT) for technical, back stopping and support.
Activity: Table egg production

Problem:
- Inadequate supply of table eggs
- High demand of table eggs
- Limited knowledge in table eggs production
- High cost of feeds.

Indian Experience:
- I have experienced a lot from class presentations, practical demonstrations and field or site visits.
- Step by step progress in the success stories of the Indian farmers.
- The high increase in the poultry production in India.

Place: Yarpua Town
- Telemai Town
- Gbanway Town
- Kpayea Town
- Sucrumu Town Salayea District, Lofa County, Liberia.

Target Group:
- Number of Farmers: 30
- Number of Villages/Town: 5 Towns
- Number of officials: 5 official/Extension Officers

Duration: 6 Months.

Expected End Results:
- Attained food security.
- Knowledge on poultry production acquired.
- Improved management practices for layer production.
- Acquired Feeds.

Any other Information: For future development, I wish that the organizer of this program will extend support to Nations that are lacking behind in technology for food production.
Mr. Matembo Zebron Nyasulu (Malawi)

Mr. Matembo Zebron Nyasulu
Assistant Veterinary Officer
Ministry of Agriculture, Irrigation and Water Development, Department of Animal Health and Livestock Development.
P. O. Box 320, Karonga District, Malawi
Tel: +265999317216, 888244725, 999703747
Email: matembonyasulu@gmail.com

Activity: Disease control in rural poultry.

Problem: New Castle Disease Prevalence is very high.

Indian Experience: Routine and timely vaccinations and sensitization.

Place: Chilumba, Karonga, Malawi.

Target Group: 80 Farmers, 2 villages.

Duration: 6 Months.

Expected End Results:
- Increase in chicken Population
- Improved nutrition
- Increase in Income
- Increase manure production
- Reduced Newcastle disease related deaths in Chickens.

Any other Information:
Mr. Aubrey Bongozo Mugala
Agriculture Extension Development Officer
Lilongwe East Agriculture, District Agriculture Office
P/Bag 36, Lilongwe, Malawi
Tel: +265999142518
Email: aubleymugala@gmail.com

Activity: Quails Production.

Problem: High malnutritional levels, due to low uptake of meat and meat products.

Indian Experience: Indian Experience has shown that our fellows Malnutrition levels are low-cause of high production and uptake of meat & meat products. Technologies are very high, farmers get loans to support themselves.

Place: Mchikwagalu, section Nkhoma area.

Target Group: Women Groups 75 women, Ngulure, katete, Dzuwa village.

Duration: From 1st June to December 2018, 6 Months.

Expected End Results: --Yield increase, meat and meat products available. --Malnutritional levels reduced.

Any other Information:
Ms. Nyandule Ivy
Agriculture Extension Development Officer,
Chirazulu District Agriculture Office
Ministry of Agriculture, Irrigation and Water Development,
P.O.Box.28,
Chirazulu, Malawi
Tel: +265 888595658, +265 888705857
Email: ivynyandule@gmail.com, isaacsembaphiri@gmail.com.

Activity: Chicken production, backyard chicken production.
Problem: High malnutritional levels, due to low uptake of meat and meat products.

Indian Experience: Indian farmers have been given all needed trainings on disease prevention & control. Indian Experience has shown that our fellows malnutrition levels are low - cause of high production and uptake of meat & meat products.

Place: Mbulumuzi North Section, Chiradzulu District.
Target Group: Vulnerable Women Groups, Number of farmers: 81 Villages Nakoli, Maloya and Ndimbure
Duration: Maximum 6 Months from 1st June to November 2018.

Expected End Results: --Nutritional status of small holder farmers will be improved.
--increased uptake in chicken meat and meat products.
--Income levels of small holder farmers will be increased.

Any other Information:
Ms. Tsoodol Serchmaa (Mongolia)

Ms. Tsoodol Serchmaa
Serologist,
State Central Veterinary Laboratory,
Government Building #9,
Enkhtaivan Avenue 16/A, 210349,
Ulaanbaatar-17024, Mongolia
Tel: +976 99141498,
Email: serchmaa@scvl.gov.mn, serchmaa98@gmail.com,
zaya@mofa.gov.mn.

Activity: Contribute to improvement of production of Mongolian farming through training of farmers.

Problem:  
- Majority of feed used for chicken production is imported in Mongolia.  
- Poultry feeding challenge.

Indian Experience:  
--Growth of production for indigenous Indian Chicken breeds.  
--India has manufactured biogas from poultry wastage and droppings.

Place: Tumen shuvuut and Nionshiee poultry farms in Ulaanbaatar, Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms.

Duration: June 2018 to December 2018.

Expected End Results: Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.

Any other Information: Tuman shallot and Nianshilot are the biggest farmers in Ulaanbaatar city with activities with entire poultry chain from breeding hatchery.
Ms. Tsogvoo Oyundelger
Food Microbiologist,
Department of Food Hygiene and Drug Residue Testing
Laboratory,
State Central Veterinary Laboratory,
Ministry of Food, Mongolian Agriculture and Light Industry,
Zaisan, P.O.Box.53/03, 11th Horoo, Khan-Uul District,
Ulaanbaatar, Mongolia
Tel: +976 70111050, +976 96667433
Fax: +976 70111050
Email: vetlabnet@scvl.gov.mn

Activity: Contribute to improvement of productivity of Mongolian chicken farming through training of farmers.

Problem:
- Majority of feed used for chicken production is imported in Mongolia.
- Poultry feeding challenge
- Accumulation of poultry droppings and waste.

Indian Experience:
- Growth of production for indigenous Indian Chicken breeds.
- India has manufactured biogas from poultry wastage and droppings.
- There is enhanced support for poultry producers, from both the national and state governments.

Place: Tumen shuvuut and Nionshiee poultry farms in Ulaanbaatar, Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms

Duration: June 2018 to December 2018

Expected End Results:
- Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.
- Increase in egg production by the two farms

Any other Information: Tumen Shuvuut and Nion /shiee are the biggest farms in UB city with activities a lord the entire, poultry value chain from breeding, hatchery unit with a capacity to hatch over 285,000 eggs at once, layer production and egg packaging. According to existing data biosecurity and disease, control measures are very stringent at the2 farms and incidences of infectious disease out breaks are very rare.
Ms. Munkhtuya Demberelsuren (Mongolia)

Ms. Munkhtuya Demberelsuren
Senior Officer
Production and organization of Intensified Livestock Farming
Khangarid Palace Baga Toiruu-15160, Chingeltei District,
Ulaanbaatar, Mongolia
Tel: +976 70140424, +976 88018673, +976 88080668,
(Supervisor) +976 11330559 & +976 99112079
Email: d.munkhtuya_mm@yahoo.com, bayanbat.d@hhaag.ub.gov.mn

Activity: Contribute to improvement of productivity of Mongolian chicken farming through training of farmers.

Problem:
- Majority of feed used for chicken production is imported in Mongolia.
- Poultry feeding challenge
- Accumulation of poultry droppings and waste.

Indian Experience:
- Growth of production for indigenous Indian Chicken breeds.
- India has manufactured biogas from poultry wastage and droppings.
- There is enhanced support for poultry producers, from both the national and state governments.

Place: Tumen shuvuut and Nionshiee poultry farms in Ulaanbaatar, Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms

Duration: June 2018 to December 2018

Expected End Results:
- Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.
- Increase in egg production by the two farms

Any other Information:
Ms. Erdenejargal Oyunsoyombo
State Examiner of Veterinary Inspection
Inspection of Capital Inspection Office
Department of Agriculture and Food Security,
Municipal Administration Building III,
J. Sambuu’s Street, 4th Khoroo, Chingeltei District,
Ulaanbaatar-15170, Mongolia
Tel: +976 77775000, +976 88017078
Email: nmhg2018@gmail.com, soyombo_0401@yahoo.com

Activity: Contribute to improvement of productivity of Mongolian chicken farming through training of farmers.

Problem:
- Majority of feed used for chicken production is imported in Mongolia.
- Poultry feeding challenge
- Accumulation of poultry droppings and waste.

Indian Experience:
- Growth of production for indigenous Indian chicken breeds.
- India has manufactured biogas from poultry wastage and droppings.
- There is enhanced support for poultry producers, from both the national and state governments.

Place: Tumen shuvuut LLC and Nionshill LLC poultry Farms in Ulaanbaatar Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms

Duration: June 2018 to December 2018, 6 Months.

Expected End Results:
- Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.
- Increase in egg production by the two farms

Any other Information:
Tumen Shuvuut and Nion /shiee are the biggest farms in UB city with activities a lord the entire, poultry value chain from breeding, hatchery unit with a capacity to hatch over 285,000 eggs at once, layer production and egg packaging
According to existing data biosecurity and disease, control measures are very stringent at the two farms and incidences of infectious disease out breaks are very rare.
Mr. Khairkhan Khanddorj Nomgon (Mongolia)

Mr. Khairkhan Khanddorj Nomgon
Ecological Officer,
Ministry of Food, Agriculture and Light Industry,
KhalkhGoI Zone for National Creation and Establishment,
TEDS Building, Chinggis Avenue, 3rd Khoroo, Khan-Uul District,
Ulaanbaatar-17070, Mongolia
Tel: +976 83141455, +976 99859274
Email: davka500@yahoo.com.

Activity: Contribute to improvement of productivity of Mongolian chicken farming through training of farmers.

Problem:
- Majority of feed used for chicken production is imported in Mongolia.
- Poultry feeding challenge
- Accumulation of poultry droppings and waste.

Indian Experience:
- Growth of production for indigenous Indian chicken breeds.
- India has manufactured biogas from poultry wastage and droppings.
- There is enhanced support for poultry producers, from both the national and state governments.

Place: Tumen shuvuut LLC and Nionshill LLC poultry Farms in Ulaanbaatar Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms

Duration: June 2018 to December 2018, 6 Months.

Expected End Results:
- Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.
- Increase in egg production by the two farms

Any other Information: Tumen Shuvuut and Nion /shiee are the biggest farms in UB city with activities a lord the entire, poultry value chain from breeding, hatchery unit with a capacity to hatch over 285,000 eggs at once, layer production and egg packaging. According to existing data biosecurity and disease, control measures are very stringent at the2 farms and incidences of infectious disease out breaks are very rare.
Mr. Balgan Munkh-Erdene (Mongolia)

Mr. Balgan Munkh-Erdene
Legal Specialist
HERD Protection fund, Ministry of Food, Agriculture and Light Industry,
Bayanzurkh District, Peace Avenue 16A,
Government Building No.9, Suite 203
Ulaanbaatar-210349, Mongolia
Tel: +976 11453233, +976 99188908
Email: orgilmaa99@yahoo.com; dambaa.ts@gmail.com

Activity: Contribute to improvement of productivity of Mongolian chicken farming through training of farmers.

Problem:
- Majority of feed used for chicken production is imported in Mongolia.
- Poultry feeding challenge
- Accumulation of poultry droppings and waste.

Indian Experience:
- Growth of production for indigenous Indian chicken breeds.
- India has manufactured biogas from poultry wastage and droppings.
- There is enhanced support for poultry producers, from both the national and state governments.

Place: Tumen shuvuut LLC and Nionshill LLC poultry Farms in Ulaanbaatar Mongolia.

Target Group: Owners and workers at Tumen shuvuut and Nionshiee poultry farms

Duration: June 2018 to December 2018, 6 Months.

Expected End Results:
- Increase the production of feed industry Mongolians reduces the problem of environment pollution, by converting poultry waste into bio-gas.
- Increase in egg production by the two farms

Any other Information: Tumen Shuvuut and Nion /shee are the biggest farms in UB city with activities a lord the entire, poultry value chain from breeding, hatchery unit with a capacity to hatch over 285.000 eggs at once, layer production and egg packaging
According to existing data biosecurity and disease, control measures are very stringent at the2 farms and incidences of infectious disease out breaks are very rare.
Ms. Margarida Dique Mussimbite (Mozambique)

Ms. Margarida Dique Mussimbite,
Extension Officer
Maputo city, 25 de setembro Av,
nº 2780 Mozambique.
Tel: +25821314859, +258825657977
Email: margaridadique@yahoo.com.br

Activity: Carry out short course trainings to sensitize farmers, on the need to commercialize backyard chicken production

Problem:
- Majority of the farmers in Mozambique who keep Indigenous chicken use subsistence production system.
- These farmers do not vaccinate chicken, hardly supplement their birds and use unconventional housing structures.
- They do not depend on the birds as a source of livelihood

Indian Experience:
- Promotion of indigenous breeds and their crosses that are well adopted to prevailing local environmental conditions.
- Use of balanced rations to ensure optimal production of the indigenous chicken.
- Design of housing structure that allow for adequate, spacing ventilation and temperature control.
- Development of vaccination programs targeting indigenous chicken.

Place: Katembe District of Maputo City, Mozambique.
Target Group: Backyard poultry keepers in Katembe Dist. Maputo City.
Duration: June 2018 to December 2018, 6 Months.
Expected End Results: Four (4) Groups of poultry keepers (Comprising 40 individuals) embracing the concept of commercial backyard poultry farmers in the target groups.

Any other Information:
-- Local extension officers and local government administrators will be contacted to help organize farmers into groups.
-- Facilitation for the training will be done by the Directorate if Agriculture and food security Government of Maputo City) National Veterinary Directorate, and National Directorate of Agricultural extension.
The Training s will be done over duration of 5 Days per farmer group once in every month.
Activity: Artificial Insemination in Native Chickens.

Problem: In our country, there has, AI in cattle and swine. But there has no AI in Poultry, otherwise, most of the poultry farmers breed the commercial broiler and layers. Only some people breed the native chicken. But it is the backyard system.

Indian Experience: In India I found that the poultry farmers breed the native chicken. They make the AI in that breed. It is one of the facts that keeping the breed of native chicken. I like that fact. So, I want to try it and I want to improve number of native breed in my country.

Place: Village at Nay Pyi Taw Township.
Target Group: 50 Backyard Poultry farmers from 10 villages.

Duration: 4 months. This is the first step and first experience for me. So I will take 4 months for duration time.

Expected End Results: I hope that backyard poultry farmers will use this way and will improve number of native chicken in our country.

Any other Information:
Ms. Wai Wai Aung Min
Deputy Veterinary Officer
Livestock breeding and Veterinary Department, Aung Chan Thar Quarter, Indaw Township, Myanmar
Tel: 95673408342
Email: ir.lbvd@gmail.com

Activity: Disease control of village chickens.

Problem: Low knowledge about diseases and no practice for vaccination. So increased mortality rate.

Indian Experience:
- Identification of poultry diseases
- Good making of prevention and control
- Good vaccination
- Decreased mortality rate

Place: 6 villages of Indaw Township

Target Group: 120 Farmers (backyard farmers)

Duration: 6 Months

Expected End Results:
- Increased knowledge of diseases and how to prevent disease
- Decreased mortality rate
- 20 Farmers of each village become the ideal and followed by other farmers
- And then it is distributed this knowledge to all of backyard farmers.

Any other Information:
Ms. Phyo Htet Kyaw (Myanmar)

Ms. Phyo Htet Kyaw
Demonstrator
Department of Animal Science,
University of Veterinary, Yezin, ZayarThiri Township
Nay Pyi Taw, Myanmar
Tel: 95 67416529, +95 9420769053, 9567416529
Email:
phyohtetlay4@gmail.com, marmarwin196510@gmail.com,

Activity: Artificial Insemination of Poultry

Problem: Little knowledge and information about artificial insemination of poultry

Indian Experience: Artificial insemination method

Place: University of veterinary science

Target Group: Students of Animal Science

Duration: 3 Weeks

Expected End Results: Techniques of semen collection procedure of handling semen And method of insemination will be thoroughly understood And practiced by the students.

Any other Information:
Activity:  Foreseeing interest in agripreneurship and agricultural extension among trainees in institutions of higher learning in modern poultry management: (A two day multi-Stakeholder workshop)  

Problem: The lack of provision of training among agricultural professional in agripreneurship and Agricultural Extension services in modern poultry management.  

Indian Experience:  
- MANAGE is working towards improving the syllabus, the teaching methodology and conducting research in education and redefining Agricultural Extension.  
- MANAGE has encouraged collaboration with experts in this field.  
- MANAGE is involved in International Training Programmes  
- MANAGE has established a National Institute of Agricultural Extension Management which focuses among other things on training and capacity Building of Extension Professionals  
- The establishment of the Central Poultry Development Organisation and Training Institute  
- The establishment of the MANAGE Agriclinics and the Agribusiness Incubation Centre and Agri-innovations accelerator programme  

Place: Kampala Uganda at a hotel yet to be identified.  
Target Group: Trainees in the institutions that train for Agriculture at the Diploma level: Bukalasa Agricultural College: (Actual number cannot be established now)  

Duration: 6 Months  

Expected End Results:  
- Workshop Recommendations: Especially one directed towards capacity building of professions in modern poultry management, Agripreneurship and Agricultural Extension  
- Linking and partnering the training institutions with MANAGE and the training opportunities available  
- Encouragement of extension research and innovation among the agricultural professionals  
- Establishment of agri clinics and developmental projects in modern poultry development  
- Eventual reaching the farmer with new ways in poultry management.
Mr. Patrick Lukooya
Manager
Demonstration Mixed Farm Agrario
Mixed Model Demonstration Farm
BuwamaMpigi District, Uganda
Tel: +256775568022, +256704992786, +256777134786
Email:lukooyap@gmail.com;

Activity: Improvement of commercial feed

Problem: Feeding poultry with feeds of immediate Nutrients

Indian Experience: Formulating feeds basics on Nutrients composition of raw materials

Place: Target Group: Farmers 250 people

Duration: 5 to 6 Months

Expected End Results: ❖ Increasing yield and profits.
❖ Reducing on capital input for food house profits

Any other Information:
Mr. James Katamba Bugeza (Uganda)

Mr. James Katamba Bugeza
Livestock Health Research Officer
National Agriculture Research Organization (NARO) PO Box 96, Tororo, Uganda
Tel: 256754998498, +2567725235516
Email: jbugeza@gmail.com, bugeza@yahoo.com, mugerwaswidiq@gmail.com (Supervisor)

Activity: Improving Hatchability at the Institute hatchery - Hatchery management.

Problem: Low hatchability of eggs at the Institute hatchery.

Indian Experience: Put in place an elaborate hatchery management system i.e. farm egg delivery to chick dispatch.

Place: National Livestock Resources Research Institute, Xlakgesasa, Wakiso District.

Target Group: 2 Hatchery attendant

Duration: 4 Months

Expected End Results:
- Improved skills in Hatchery Operations & management
- Improved Hatchability.
- Improved Revenue-NTP

Any other Information:
Mr. Christias Dismas Baterana
Senior Veterinary Officer
Rukungiri Veterinary Department P. O. Box 1,
Rukungiri Uganda
Tel: +256 772667117
Email: xbateranac@yahoo.com

Activity:

**Problem:**
Low productivity of Layer birds and Broilers: eggs.

**Indian Experience:**
They have high production of eggs

**Place:**
- Nukurgiri
- Buhweju

**Target Group:**
Farmers and Extension workers

**Duration:**
2 months

**Expected End Results:**
High production in terms of eggs.

**Any other Information:**
Mr. Emmanuel Hasahya
Veterinary Officer
Busia District Local Government,
P O Box 124,
Busia , Uganda
Tel: +256781526764
Email: ehasahya@gmail.com

Activity: Improving Survival of chicks by local charcoal stove to source of heat

Problem: High mortality of chicks during the Brooding stage.

Indian Experience:
- Good brooding system
- Every parameter is taking care of
- Excellent feed formulation
- Good biosecurity
- Good Breeds

Place: Bugis District

Target Group: Women, PWD’s, Elderly youth.

Duration: 5 to 6 months

Expected End Results:
- Immense survival of chicks
- More meat & eggs production
- High income for women’s, PWD’s and Elderly youth.

Any other Information:
3.5 TRAINING EVALUATION

3.6 Evaluation of Technical sessions

Feed back of executives was collected on all technical sessions taken by resources persons and field visits on a scale of 1 to 10 (1 - least and 10 - highest). Additionally, their suggestions on other areas such as boarding and lodging were obtained in order to make modifications in similar future programmes. The executives expressed their satisfaction level by rating the program with an average score of 9.76 out of 10 indicating that the overall impression on the program was excellent. The feedbacks received from executives are tabulated.

<table>
<thead>
<tr>
<th>Evaluation of Field Trip</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit to ICAR-DPR</td>
<td>9.54</td>
</tr>
<tr>
<td>Field visit - SH Protein Food pvt.Ltd.</td>
<td>9.10</td>
</tr>
<tr>
<td>Visit to ICAR-NRC on Meat</td>
<td>9.67</td>
</tr>
<tr>
<td>Visit to Veterinary College (Poultry and Dairy Farm)</td>
<td>9.63</td>
</tr>
<tr>
<td>Visit to ICAR-IIMR (Millets)</td>
<td>9.50</td>
</tr>
<tr>
<td>Visit to ICAR-IIRR (Rice)</td>
<td>9.12</td>
</tr>
<tr>
<td>Visit to MANAGE</td>
<td>9.80</td>
</tr>
<tr>
<td>Visit to tribal village (BhovojiThanda)</td>
<td>9.23</td>
</tr>
<tr>
<td>Field visit – Suguna feed plant</td>
<td>9.55</td>
</tr>
<tr>
<td>Visit to places of cultural and historical importance</td>
<td>9.50</td>
</tr>
</tbody>
</table>

List of Field Trip Suggestions

1. The trips were relevant and well thought out.
2. The Field visits helps one visualize the field conditions on technology use. All the visits were very fruitful and we got the real feelings of what agriculture is all about in India. For example, we never knew before that there are so many varieties of domestic birds and their uses but through these visits, it broaden our knowledge and skills.
3. I gained a lot from DPR on “Modern Poultry Management”. I was very impressed to learn that we can collaborate on various domestic birds’ researches and improve many varieties with high yielding breeds.
4. One of the trainee mentioned, that “there are many unemployed graduates and under graduates from Uganda who can do for income generation. Training from ICAR-DPR was an eye opener and we can spread the knowledge in our country. Well done!”
5. All the Visits were very useful.
6. Very interesting and encouraging.
7. There should be enough time for interaction. I LOVE INDIA AND THANK YOU VERY MUCH.
3.7 Pre and post-training test

Pre and Post training tests were conducted for the executives where twenty-five thematic questions on Modern Poultry Management with a maximum of 25 marks were administered for the executives to assess their change of knowledge levels and effectiveness of the training program. The average score of executives in the pre-training test was 11.79, whereas the average score of post-training was 18.52. The level of knowledge of executives was found to be increased by 26.9% after the training program.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Executive Name -Country</th>
<th>Post Test Score (Max 25)</th>
<th>Pre-Test Score (Max 25)</th>
<th>Gain Score (Post-Pre Scores)</th>
<th>Gain Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ms. Kegomoditswe Bula (Botswana)</td>
<td>19</td>
<td>15</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>Ms. Mary AdhiambOchiengOndieki(Kenya)</td>
<td>21</td>
<td>18</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Mr. James CharoSamaki(Kenya)</td>
<td>21</td>
<td>12</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>Mr. Ronald KipkogeKiKimeii(Kenya)</td>
<td>22</td>
<td>14</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>Mr. Charles MwanikiNgonyoku(Kenya)</td>
<td>19</td>
<td>16</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Elijah MunyaoMunguti(Kenya)</td>
<td>24</td>
<td>16</td>
<td>8</td>
<td>32</td>
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<tr>
<td>7</td>
<td>Mr. Evans MukhuchiMakokha(Kenya)</td>
<td>22</td>
<td>18</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Ms. Yeanua Angela Kehleay(Liberia)</td>
<td>24</td>
<td>14</td>
<td>10</td>
<td>40</td>
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<tr>
<td>9</td>
<td>Mr. James K Dorbor(Liberia)</td>
<td>14</td>
<td>6</td>
<td>8</td>
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<tr>
<td>10</td>
<td>Mr. George KonahMatiah(Liberia)</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>11</td>
<td>Mr. Samuel Fromayan(Liberia)</td>
<td>13</td>
<td>11</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Mr. MatemboZebronNyasulu(Malawi)</td>
<td>23</td>
<td>15</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>13</td>
<td>Mr. Aubrey BongozoMugala(Malawi)</td>
<td>17</td>
<td>10</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>14</td>
<td>Ms. Nyandule Ivy(Malawi)</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>15</td>
<td>Ms. TsoodolSerchmaa(Mongolia)</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>Ms. TsogvooOyundelger(Mongolia)</td>
<td>23</td>
<td>4</td>
<td>19</td>
<td>76</td>
</tr>
<tr>
<td>17</td>
<td>Ms. MunkhtuyaDemberelsuren(Mongolia)</td>
<td>11</td>
<td>9</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>18</td>
<td>Ms. ErdenejargalOyunsoyombo(Mongolia)</td>
<td>22</td>
<td>10</td>
<td>12</td>
<td>48</td>
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<tr>
<td>19</td>
<td>Mr. KhairkhanKhanddorjNomgon(Mongolia)</td>
<td>22</td>
<td>15</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>20</td>
<td>Mr. BalganMunkh-Erdene(Mongolia)</td>
<td>21</td>
<td>10</td>
<td>11</td>
<td>44</td>
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<tr>
<td>Sl.No</td>
<td>Name of the Participants</td>
<td>Feedback From Executives</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-------</td>
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<td>--------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ms. Kegomoditswe Bula</td>
<td>This training is very valuable for me because, I got a lot of methodologies for mass production of available for our farmers. They can apply these technologies with their own facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ms. Mary AdhiamboOchiengOndieki</td>
<td>If the similar trainings are available to our farmers, they can apply these.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mr. James CharoSamaki</td>
<td>Thanks ICAR-DPR and MANAGE.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mr. Ronald KipkogeiKimitei</td>
<td>The training was very educative.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mr. Charles MwanikiNgonyoku</td>
<td>Technologies with their own facilities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Mr. Elijah MunyaoMunguti</td>
<td>This training is very effective for my country.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Mr. Evans MukhuchiMakokha</td>
<td>This training giver to me not only technologies but also friendships, communication and happy times.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ms. Yeanua Angela Kehleay</td>
<td>We have learned the technologies.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Mr. James K Dorbor</td>
<td>The training has been an eye opener for me personally.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mr. George KonahMatiah</td>
<td>I was very lucky to have been chosen for this</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Mr. Samuel Fromayan</td>
<td>The technologies we have learned and sure to implement them back home.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Mr. MatemboZebronNyasulu</td>
<td>The training was very educative. We learnt a lot from the training because it has filled a lot gaps which were there at</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Feedback Reports

<table>
<thead>
<tr>
<th>Name of the Participants</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Margarida DiqueMussimbite (Mozambique)</td>
<td>20 10 10 40</td>
</tr>
<tr>
<td>Ms. Mo Zin Myint (Myanmar)</td>
<td>14 10 4 16</td>
</tr>
<tr>
<td>Ms. Wai Wai Aung Min (Myanmar)</td>
<td>13 10 3 12</td>
</tr>
<tr>
<td>Ms. PhyoHtetKyaw (Myanmar)</td>
<td>20 15 5 20</td>
</tr>
<tr>
<td>Ms. Nellie Florence Okullo (Uganda)</td>
<td>20 11 9 36</td>
</tr>
<tr>
<td>Mr. Patrick Lukooya (Uganda)</td>
<td>17 10 7 28</td>
</tr>
<tr>
<td>Mr. James KatambaBugeza (Uganda)</td>
<td>19 14 5 20</td>
</tr>
<tr>
<td>Mr. ChristasDismasBaterana (Uganda)</td>
<td>21 13 8 32</td>
</tr>
<tr>
<td>Mr. Emmanuel Hasahya (Uganda)</td>
<td>18 12 6 24</td>
</tr>
<tr>
<td><strong>Average Score</strong></td>
<td>18.52 11.79 6.72 26.90</td>
</tr>
<tr>
<td></td>
<td>Name</td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
</tr>
<tr>
<td>13</td>
<td>Mr. Aubrey BongozoMugala</td>
</tr>
<tr>
<td>14</td>
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<td>Mr. MunkhtuyaDemberelsuren</td>
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<td>Mr. KhairkhanKhanddorjNomgon</td>
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<tr>
<td>24</td>
<td>Ms. PhyoHtetKyaw</td>
</tr>
<tr>
<td>25</td>
<td>Ms. Nellie Florence Okullo</td>
</tr>
<tr>
<td>26</td>
<td>Mr. Patrick Lukooya</td>
</tr>
<tr>
<td>27</td>
<td>Mr. James KatambaBugeza</td>
</tr>
<tr>
<td>28</td>
<td>Mr. ChrismasDismasBaterana</td>
</tr>
<tr>
<td>29</td>
<td>Mr. Emmanuel Hasahya</td>
</tr>
</tbody>
</table>

### 3.8 Post-training monitoring

Post-training impact evaluation in respective countries, an integral part of the program will be done by DPR and Program Management Unit (PMU), MANAGE. PMU will be regularly in touch with executives through emails to monitor the progress of their “Back-at-Work-Plans” and it will help in effective monitoring and impact evaluation which is one of the important aspects of Program Monitoring & Evaluation (M & E).

### Valedictory and Feed Back

### 3.9 Feed Back

Feedback information was received from the executives about the training program. Feedback given by the executives is enclosed with this report.
4.0 Valedictory:

The closing of twenty-fifth programme under FTF-ITT was celebrated in a grand manner. The valedictory session was conducted on 14th May 2018 that was attended by His Excellency Mark A. White, Mission Director USAID-India, H.E. Mrs. Florence Weche Kenyan High Commissioner, New Delhi, H.E. Mr. George Crytone Mkondiwa, Malawi High Commissioner, New Delhi, Smt. V. Usha Rani IAS, Director General, MANAGE, Dr. M.V.L.N. Raju, In-charge Director, Dr. Saravanan Raj, Director, MANAGE & scientists and staff of ICAR-DPR. Dr. U. Rajkumar, Program Coordinator presented a brief report on the training program. The dignitaries addressed during the function and gave away course completion certificates to the executives. Special appreciation certificate was also given to volunteers under different categories. The valedictory program was wrapped up by taking a group photograph of the executives along with the special guests of the program.
# Program Schedule

**Duration:** 1 - 15 May 2018  
**Venue:** ICAR-DPR, Hyderabad

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>01.05.2018 (Tuesday) – Day-1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.30 – 10.30 AM</td>
<td>Registration</td>
<td>Dr. M.V.L.N. Raju</td>
</tr>
<tr>
<td>10.30 – 11.30 AM</td>
<td>Ice breaking session/ Discussion on the course contents and logistics with the executives</td>
<td>Dr. U. Rajkumar</td>
</tr>
<tr>
<td>11.30 – 1.00 PM</td>
<td>Institute profile and role of DPR in poultry development</td>
<td>Dr. R. N. Chatterjee</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 –3.00 PM</td>
<td>Visit to labs</td>
<td>Dr. L. L.L. Prince Dr. Shanmugam M</td>
</tr>
<tr>
<td>3.00 – 3.30 PM</td>
<td>Pre-course evaluation of executives</td>
<td>Dr. U. Rajkumar</td>
</tr>
<tr>
<td>3.30 – 5.00 PM</td>
<td>Introduction to chicken breeds</td>
<td>Dr. L. L.L.Prince</td>
</tr>
<tr>
<td><strong>02.05.2018 (Wednesday) - Day-2</strong></td>
<td></td>
<td></td>
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<tr>
<td>10.00 – 1.00 PM</td>
<td>Inauguration function</td>
<td>Conference Hall</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 –3.30 PM</td>
<td>Overview of poultry industry-Indian scenario</td>
<td>Dr. U. Rajkumar</td>
</tr>
<tr>
<td>3.30 – 5.00 P.M</td>
<td>Basic concepts of poultry nutrition</td>
<td>Dr. M.V.L.N.Raju</td>
</tr>
<tr>
<td><strong>03.05.2018 (Thursday) -Day-3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 – 12.00 AM</td>
<td>Global poultry industry: Challenges and opportunities</td>
<td>Shri. D. Ragava Rao</td>
</tr>
<tr>
<td>12.00 –1.00 AM</td>
<td>Daily routine farm operations and farm management</td>
<td>Dr. S.K. Bhanja</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 –3.30 PM</td>
<td>Bio-security, common poultry diseases and their prevention and control</td>
<td>Dr. T.R.Kannaki</td>
</tr>
<tr>
<td>3.30 –5.00 PM</td>
<td>Poultry Litter management</td>
<td>Mr. Shravan Gattu</td>
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<tr>
<td><strong>04.05.2018 (Friday ) –Day -4</strong></td>
<td></td>
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</tr>
<tr>
<td>8:00 – 5.00 PM</td>
<td>Field visit Unit – SH Protein food pvt ltd</td>
<td>Dr. M. Shanmugam Dr. L. L. L. Prince</td>
</tr>
<tr>
<td>2.00-5.00 PM</td>
<td>Visit to ICAR-NRC on Meat</td>
<td>Dr. L. L. L. Prince Dr. M. Shanmugam</td>
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<tr>
<td><strong>05.05.2018 (Saturday) –Day -5</strong></td>
<td></td>
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<tr>
<td>9.30 – 12.00 PM</td>
<td>Hatchery management</td>
<td>Dr.ChandanPaswan Shri Rajeswar Goud</td>
</tr>
<tr>
<td>12.00 – 1.00 PM</td>
<td>Post-mortem examination and diagnosis of poultry diseases</td>
<td>Dr. T.R.Kannaki</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00- 3.00 PM</td>
<td>Visit to Veterinary College (Poultry and Dairy)</td>
<td>Dr. L. L. L. Prince</td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td>Instructor(s)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>3.00 - 4.00 PM</td>
<td>Visit to ICAR-IIMR (Millet)</td>
<td>Dr. L. L. L. Prince</td>
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<tr>
<td></td>
<td></td>
<td>Dr. M. Shanmugam</td>
</tr>
<tr>
<td>4.00 - 5.00 PM</td>
<td>Visit to ICAR-IIRR (Rice)</td>
<td>Dr. L. L. L. Prince</td>
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<tr>
<td></td>
<td></td>
<td>Dr. M. Shanmugam</td>
</tr>
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</table>

**06.05.2018 (Sunday) – Day -6 : Homework and reading**

**07.05.2018 (Monday) – Day -7**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.45 - 10.00 AM</td>
<td>Daily routine farm operations and farm management</td>
<td>Dr. S.K. Bhanja</td>
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</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 – 11.30 AM</td>
<td>Nutritional requirement of layer, broiler and least cost diet formulations and computation</td>
<td>Dr. S.V. Rama Rao</td>
</tr>
<tr>
<td>11.30 – 1.00 PM</td>
<td>Group discussion-Rising feed costs: Way forward</td>
<td>Dr. G. Devegowda</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. M.V.L.N. Raju</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00– 3.30 PM</td>
<td>Case study: Poultry farm to poultry industry- A successful Journey</td>
<td>Mr. SatyanarayanaRaju</td>
</tr>
<tr>
<td>3.30-5.00 PM</td>
<td>Poultry Housing management</td>
<td>Dr. Santosh Haunshi</td>
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</table>

**08.05.2018 (Tuesday) – Day -8**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 – 1.00 PM</td>
<td>Visit to MANAGE</td>
<td>Dr. M. Shanmugam</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 –3.30 PM</td>
<td>Emerging and re-emerging diseases of poultry-contingency plans to control Avian Influenza</td>
<td>Dr. M.R. Reddy</td>
</tr>
<tr>
<td>3.30 –5.00 PM</td>
<td>Feed compounding/mixing</td>
<td>Dr. B. Prakash</td>
</tr>
<tr>
<td>5.00 -7.00PM</td>
<td>Visit to tribal village (Bhovoji Thanda)</td>
<td>Dr. B. Prakash</td>
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</tbody>
</table>

**09.05.2018 (Wednesday) – Day -9**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM– 5.00 PM</td>
<td>Field visit – Suguna feed plant</td>
<td>Dr. S.V. Rama Rao</td>
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<tr>
<td></td>
<td></td>
<td>Dr. U. Rajkumar</td>
</tr>
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</table>

**10.05.2018 (Thursday) – Day -10**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
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<tbody>
<tr>
<td>10.00 – 12.00 PM</td>
<td>Group discussion-Welfare/ethical issues in poultry production</td>
<td>Dr. P.S. Mahesh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. M.V.L.N. Raju</td>
</tr>
<tr>
<td>12.00 – 1.00 PM</td>
<td>Diversified poultry production: Scope and opportunities</td>
<td>Dr. P.S. Mahesh</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 – 3.30 PM</td>
<td>Case study-Feed and feed industry: Experiences and road to success</td>
<td>Sri C.V. Rao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. S.V. Rama Rao</td>
</tr>
<tr>
<td>3.30 –5.00 PM</td>
<td>Chicken reproductive physiology, semen collection and artificial insemination</td>
<td>Dr. M. Shanmugam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. S.K. Bhanja</td>
</tr>
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</table>

**11.05.2018 (Friday) – Day -11**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 – 11.00 PM</td>
<td>Business Opportunities in Indian Poultry Industry</td>
<td>Mr. K.G. Anand</td>
</tr>
<tr>
<td>11.00 – 1.00 PM</td>
<td>Group discussion-Antibiotic residues in</td>
<td>Dr. Dinesh Bhonsle</td>
</tr>
</tbody>
</table>
### Poultry: Threats, Challenges and Way Forward

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 – 3.30 PM</td>
<td>Rural Poultry: Role of DPR in propagation of Backyard Poultry</td>
<td>Dr. U. Rajkumar</td>
</tr>
<tr>
<td>3.30 – 5.00 PM</td>
<td>Post-harvest processing and value addition in Poultry</td>
<td>Dr. Suresh Devatkal</td>
</tr>
<tr>
<td>5.30 – 9.00 PM</td>
<td>Cultural Evening</td>
<td>Dr. B. Prakash</td>
</tr>
</tbody>
</table>

#### 12.05.2018 (Saturday) – Day -12

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>8:00 AM – 06.00 PM</td>
<td>Visit to places of cultural and historical importance</td>
<td>Dr. M. Shanmugam, Dr. L. Leslie Leo Prince</td>
</tr>
</tbody>
</table>

#### 13.05.2018 (Sunday) – Day -13

- Home work and reading

#### 14.05.2018 (Monday) – Day -14

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.30 – 12.00 PM</td>
<td>Back at work plan – presentation by executives</td>
<td>Dr. U. Rajkumar, Dr. L. L.L. Prince, Dr. M. Shanmugam</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 – 5.00 PM</td>
<td>Valedictory Function</td>
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</table>

#### 15.05.2018 (Tuesday) – Day -15

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>10.00 – 11.00 AM</td>
<td>New approaches for poultry productivity improvement</td>
<td>Dr. T. K. Bhattacharya</td>
</tr>
<tr>
<td>11.00 – 12.00 PM</td>
<td>Scope of poultry production in African and Asian countries</td>
<td>Dr. T. Kotaiah</td>
</tr>
<tr>
<td>12.00 – 1.00 PM</td>
<td>Post course evaluation and Feedback</td>
<td>Dr. U. Rajkumar, Dr. L. L.L. Prince, Dr. M. Shanmugam</td>
</tr>
<tr>
<td>1.00 – 2.00 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>2.00 – 4.00 PM</td>
<td>Post course evaluation and Feedback</td>
<td>Dr. U. Rajkumar, Dr. L. L.L. Prince, Dr. M. Shanmugam</td>
</tr>
</tbody>
</table>
"Feed The Future India Triangular Training (FTF ITT) Program International Training Program on “Modern Poultry Management “for executives of African and Asian Countries
1 -15 May 2018 at ICAR-DPR, Hyderabad, India Executives Feed Back"

<p>| No  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | Average |
|-----|---|---|---|---|---|---|---|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1   | Pre-course evaluation of executives, Dr. U. Rajkumar, Dr. Leslie Leo Prince &amp; Dr. Shanmuagam, M | 10 | 10 | 10 | 10 | 7 | 9 | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 6 | 10 | 10 | 10 | 9 | 9.24 |
| 2   | Institute profile and role of DPR in poultry development, Dr. R. N. Chatterjee | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 6 | 10 | 9 | 10 | 9 | 8 | 9 | 9 | 10 | 9 | 9.59 |
| 3   | Introduction to chicken breeds, Dr. Leslie Leo Prince | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 | 9 | 8 | 9 | 10 | 8 | 9 | 10 | 9.48 |
| 4   | Visit to different labs, Dr. Shanmuagam, Dr. Leslie Leo Prince | 10 | 9 | 10 | 9 | 10 | 10 | 10 | 8 | 10 | 10 | 10 | 10 | 10 | 8 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 6 | 9.48 |
| 5   | Overview of poultry industry-Indian scenario, Dr. U. Rajkumar | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 | 8 | 10 | 10 | 10 | 6 | 9.55 |
| 6   | Basic concepts of poultry nutrition, Dr. M.V.L.N.Raju | 8 | 9 | 10 | 9 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 9 | 10 | 10 | 9 | 10 | 9 | 10 | 9 | 8 | 8 | 10 | 9 | 10 | 9 | 7.24 |
| 7   | Global poultry industry: Challenges and opportunities, Shri D. Ragava Rao | 9 | 9 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 7 | 10 | 9 | 10 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 7.17 |
| 8   | Daily routine farm operations and farm management, Dr. S.K. Bhanja | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 8.55 |
| 9   | Bio-security, common poultry diseases and their prevention and control, Dr. T.R.Kannaki | 10 | 10 | 8 | 9 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 9 | 10 | 10 | 9 | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 9.55 |
| 10  | Poultry Litter management, Mr. Shravan Gattu | 10 | 9 | 9 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 8 | 9 | 1 | 9 | 9 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 3 | 8.86 |
| 11  | Field visit Unit – SH Protein Food Pvt Ltd, Dr. Shanmuagam, Dr. Leslie Leo Prince | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 9 | 9 | 7 | 9 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 7 | 10 | 10 | 7 | 9.41 |
| 12  | Visit to ICAR-NRC on Meat, Dr. Leslie Leo Prince, Dr. Shanmuagam, M | 10 | 9 | 9 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 10 | 10 | 8 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 9 | 8 | 10 | 8 | 10 | 9 | 7.45 |
| 13  | Hatchery management, Dr.ChandanPaswan | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 9 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 9 | 10 | 9 | 9.62 |
| 14  | Post-mortem examination and diagnosis of poultry diseases, Dr. T.R.Kannaki | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 9 | 10 | 9 | 9.76 |
| 15  | Visit to Veterinary College (Poultry and Dairy Farm), IIMR (Millet) &amp; IIRR (Rice), Dr. Leslie Leo Prince, Dr. Shanmuagam, M | 10 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 9 | 10 | 9 | 9 | 9 | 7 | 10 | 10 | 9 | 9 | 9 | 9.34 |
| 16  | Nutritional requirement of layer, broiler and least cost diet formulations and computation, Dr. S.V.Rama Rao | 9 | 10 | 7 | 8 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 10 | 9 | 8 | 9 | 9 | 8 | 10 | 9.03 |
| 17  | Group discussion-Rising feed costs: Way forward, Dr. G. Bhevogudwa, Dr. M.V.L.N. Raju | 10 | 10 | 8 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 9 | 8 | 10 | 10 | 10 | 10 | 8 | 8 | 10 | 7 | 9 | 10 | 9 | 9.38 |
| 18  | Case study: Poultry farm to poultry industry-A successful Journey, Mr. Satyanarayana Raju | 8 | 10 | 7 | 10 | 10 | 9 | 10 | 10 | 10 | 9 | 10 | 10 | 8 | 10 | 10 | 9 | 10 | 9 | 9 | 8 | 9 | 10 | 9 | 10 | 9 | 10 | 9.14 |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Session</th>
<th>Participants</th>
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<tbody>
<tr>
<td>20</td>
<td>Visit to MANAGE</td>
<td>Dr. T.K. Bhattacharya</td>
</tr>
<tr>
<td>21</td>
<td>Emerging and re-emerging diseases of poultry-contingency plans to control Avian Influenza, Dr. M.R. Reddy</td>
<td>Dr. U.Rajkumar, Dr. L. Leslie Prince, Dr. L. Leslie Leo Prince, Dr. M. Shannumag M</td>
</tr>
<tr>
<td>22</td>
<td>Visit to tribal village (Bhovoji Thanda), Dr. B. Prakash</td>
<td>Dr. S.V. Rama Rao, Dr. U. Rajkumar</td>
</tr>
<tr>
<td>23</td>
<td>Field visit – Suguna Feed plant, Dr. S.V. Rama Rao, Dr. U. Rajkumar</td>
<td>Dr. L. Leslie Prince, Dr. L. Leslie Leo Prince, Dr. M. Shannumag M</td>
</tr>
<tr>
<td>24</td>
<td>Diversified poultry production: Scope and opportunities and Group discussion-Welfare/ethical issues in poultry production, Dr. P.S. Mahesh</td>
<td>Mr. C.V. Rao, Dr. P.S. Mahesh</td>
</tr>
<tr>
<td>25</td>
<td>Case study-Feed and feed industry: Experiences and road to success, Mr. C.V. Rao</td>
<td>Mr. C.V. Rao, Dr. P.S. Mahesh</td>
</tr>
<tr>
<td>26</td>
<td>Chicken reproductive physiology, semen collection and artificial insemination, Dr. M. Shannumag</td>
<td>Mr. C.V. Rao, Dr. P.S. Mahesh</td>
</tr>
<tr>
<td>27</td>
<td>Business Opportunities in Indian Poultry Industry, Mr. K.G. Anand</td>
<td>Mr. C.V. Rao, Dr. P.S. Mahesh</td>
</tr>
<tr>
<td>28</td>
<td>Group discussion-Antibiotic residues in poultry: Threats, challenges and way forward, Dr. Dinesh Bhonsde</td>
<td>Mr. C.V. Rao, Dr. Dinesh Bhonsde</td>
</tr>
<tr>
<td>29</td>
<td>Kural poultry: Role of DPR in propagation of backyard poultry, Dr. R. Rajkumar</td>
<td>Mr. C.V. Rao, Dr. R. Rajkumar</td>
</tr>
<tr>
<td>30</td>
<td>Post-harvest processing and value addition in poultry, Dr. Suresh Devatkal</td>
<td>Mr. C.V. Rao, Dr. Suresh Devatkal</td>
</tr>
<tr>
<td>31</td>
<td>Cultural evening, Dr.U.Rajkumar, Dr. L. Leslie Leo Prince, Dr. Shannumag M</td>
<td>Mr. C.V. Rao, Dr. L. Leslie Leo Prince, Dr. M. Shannumag M</td>
</tr>
<tr>
<td>32</td>
<td>Visit to places of cultural and historical importance, Dr. L. Leslie Leo Prince</td>
<td>Mr. C.V. Rao, Dr. L. Leslie Leo Prince, Dr. M. Shannumag M</td>
</tr>
<tr>
<td>33</td>
<td>Back at work plan, Dr.U.Rajkumar, Dr. L. Leslie Leo Prince, Dr. Shannumag M</td>
<td>Mr. C.V. Rao, Dr. L. Leslie Leo Prince, Dr. M. Shannumag M</td>
</tr>
<tr>
<td>34</td>
<td>New approaches for poultry productivity improvement, Dr.T.K. Bhattacharya</td>
<td>Mr. C.V. Rao, Dr. T.K. Bhattacharya</td>
</tr>
<tr>
<td>35</td>
<td>Scope of poultry production in African and Asian countries, Dr.T. Kotaiah</td>
<td>Mr. C.V. Rao, Dr. T.K. Kotaiah</td>
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<tr>
<td></td>
<td>Post Training Test</td>
<td>Mr. C.V. Rao, Dr. T.K. Kotaiah</td>
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<tr>
<td></td>
<td>Food facility</td>
<td>Mr. C.V. Rao, Dr. T.K. Kotaiah</td>
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<td>Accommodation facility</td>
<td>Mr. C.V. Rao, Dr. T.K. Kotaiah</td>
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<tr>
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<td>Transport facility</td>
<td>Mr. C.V. Rao, Dr. T.K. Kotaiah</td>
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Overall impression about Training Program: 9.76
Overall impression about Training Program