Status before collaboration and NOMA support

- The Radiology situation in the country was not very encouraging.
- The number of Radiologists in the country was about 35 in total; all trained outside (Kenya and UK).
- There was only one Mmed training program at Kilimanjaro Christian Medical College at KCMC Moshi, Tumaini University admitting a small number of Trainees. (limited no. of Teachers)
- Radiologists were found in only 4 major towns. (DSM, Mwanza, Moshi, and Mbeya).
Status before collaboration and NOMA support

- Tanzania has a population of about 45 million; there are about 28 or 30 region referral hospitals each requiring at least one Radiologist.
- The was a need therefore to establish another Mmed program within the country to train more Radiologists.
NOMA support, achievements:

- Mmed program was started in the academic year 2007/8 with a cohort of 4 students.
- NOMA support went up to the fourth cohort (2010/11 to 2012/31), these received full NOMA support.
- Fifth cohort (2011/12 to 2013/14) received partial support as there was no external Bergen rotation. These are in their final year of study currently.
- 5th, 6th, 7th cohorts are currently on training.
NOMA support included:

- Teachers from Bergen University – Haukeland hospital.
- Student’s two months external rotation at Radiology Department, Haukeland hospital.
- Teaching facilities and teaching aids including books, computers and multimedia projectors.
- ‘Prepared training CDs’ by Bergen teachers for practical sessions.
NOMA support included:

Teachers from Bergen; covering all major Radiology sub specialities:

- GIT Radiology, Musculoskeletal, Chest, Cardiovascular, Neuroradiology, Genitourinary radiology, Paediatrics, CT and MRI physics.
- There were in total six visiting teachers.
- They came periodically for scheduled two weeks teaching sessions.
List of Teachers and courses taught:

• Dr. Marit Bolstad  GIT
• Dr. Markus Rodvik  Musculoskeletal
• Dr. Jarle Rorvik  Genitourinary
• Dr. Anne Lisse Gjennestad  Chest and CVS
• Dr. Stein Magnus Aukland  Paediatric
• Dr. Justein Krikenes  Neuroradiology
• Dr. Bolstad & Rodvik  also  CT and MRI physics
External rotation at Haukeland hosp.

- Student rotated for two months at Bergen University, Haukeland hospital.
- A total of 15 students rotated thru Haukeland hospital (in semesters V and VI) i.e. cohort one to four.
- They went thru all major sub specialities while there.
- This is a learning experience in an ideal radiology department, our students polished what ever they have learned while rotating there.
Books, Teaching facilities and aids:

- Support in books, teaching and learning facilities.
- We bought essential text and reference books for the students to use during their training.
- We have bought several laptop computers for use during class room demonstrations.
- We have received teaching CDs from Bergen teachers for students self study.
- Also teaching facilities e.g. multimedia projector/s.
Achievements:

<table>
<thead>
<tr>
<th>Year of study</th>
<th>cohort</th>
<th>Number of students</th>
<th>Female</th>
<th>Male</th>
<th>sponsorship</th>
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<tr>
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<td>I</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>F</td>
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<tr>
<td>2008/9 - 2010/11</td>
<td>II</td>
<td>4</td>
<td>3</td>
<td>1</td>
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<tr>
<td>2009/10 – 2011/12</td>
<td>III</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>F</td>
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<tr>
<td>2010/11 - 2012/13</td>
<td>IV</td>
<td>3</td>
<td>1</td>
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<td><strong>7</strong></td>
<td><strong>8</strong></td>
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<tr>
<td>2011/12 - 2013/14</td>
<td>V</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>P</td>
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<tr>
<td>2012/13 – 2014/15</td>
<td>VI</td>
<td>10</td>
<td>5</td>
<td>5</td>
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<tr>
<td>2013/14 – 2015/16</td>
<td>VII</td>
<td>3 (+2)</td>
<td>2 (+1)</td>
<td>1 (+1)</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>19</strong></td>
<td><strong>11</strong></td>
<td><strong>8</strong></td>
<td></td>
</tr>
</tbody>
</table>
Achievements:

• Those who have graduated through the program under NOMA sponsorship are the first four cohorts with a total of 15 students (7F and 8M).

• Among them 3 were private students (Indian nationality). Two are still in Tanzania. One has gone back to India.
Achievements:

The distribution of 12 Tanzanian graduates is as follows:

- 5 are employed as University lecturers (MUHAS and Dodoma)
- 6 are employed by government/public hospitals
- One is employed in a private hospital.
Placements details:


- Dr. Mwinyi A  Muhimbili National Hospital
- Dr. Bwomelo J  Muhimbili Orthopaedic Institute
- Dr. Nkrumbih Z  MUHAS Lecturer
- Dr Rusheke H  Dodoma University Lecturer


- Dr. Sakafu L  MUHAS Lecturer based at Ocean Road Cancer Institute (ORCI)
- Dr Jacob M  MUHAS Lecturer
- Dr. Kabala R  Shinyanga Regional referral Hospital
- Dr Makungu H  Amana – Dar es Salaam City Hospitals
Placements details:

COHORT III (2009/10 – 2011/12):

- Dr Magambo M  Mwanza city hospital
- Dr Musa Balowa  MUHAS Lecturer
- Dr Jafferji Z  Regency Medical Centre, Dar es Salaam
- Dr Tan Moy Mandal  (Went back to India)

COHORT IV (2010/11 – 2012/13):

- Dr Kishaluli N  Mwananyamala, Dar es Salaam City Hospitals
- Dr Talukdar A  Regency Medical Centre, Dar es Salaam
- Dr. Khan Sabah  (Not yet established).
Future plans:

- The number of academic staff in the Department has increased to 5 in total; in order to consolidate Mmed program training, further training for our graduates is required.
- It is more important for those who have joined the Universities as academic staff.
- Further training in radiology sub specialities (post Mmed, MSc) and PhD levels is important.
- Here our Bergen friend’s support is strongly required. CMC Velore has shown interest in supporting the practical training for the Radiology trainees.
Future plans:

- The fact that, other Universities in the country are looking at MUHAS to provide them with Radiology Teachers can not be overlooked.
- This further supports the need for further training of MUHAS radiology teachers, and also our graduates.