Climate Change Adaptation in the Academic Programs: the case of Jimma University, Ethiopia

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Outline

I. Overview of Jimma University

II. Community Based Educational Philosophy

III. Climate – related researches at JU
   - Malaria
   - Coffee

IV. Lesson Learned/best practices
I. Overview of JU

Jimma University
I. Overview of JU cont.

□ Capmuses of JU

- Main Campus
- College of Business & Economics
- College of Agri. Technology Institute
- Technology Institute
- College of Business & Economics
### Student Population

<table>
<thead>
<tr>
<th>Programs</th>
<th>Undergraduate</th>
<th>Postgraduate Diploma</th>
<th>Postgraduate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>19414</td>
<td>286</td>
<td>2378</td>
<td>22078</td>
</tr>
<tr>
<td>Summer</td>
<td>6386</td>
<td>949</td>
<td>811</td>
<td>8146</td>
</tr>
<tr>
<td>Evening</td>
<td>2987</td>
<td>-</td>
<td>229</td>
<td>3216</td>
</tr>
<tr>
<td>Distance</td>
<td>12050</td>
<td>-</td>
<td>-</td>
<td>12050</td>
</tr>
<tr>
<td>Total</td>
<td>40837</td>
<td>183</td>
<td>1804</td>
<td>45490</td>
</tr>
</tbody>
</table>

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I. Overview of JU cont.

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*Overview of JU*
I. Overview of JU cont.

Academic Programs

- Undergraduate - 56
- Postgraduate- 103 (MSc & PhD)
## I. Overview of JU cont.

<table>
<thead>
<tr>
<th>Staff members</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>1500</td>
</tr>
<tr>
<td>Health professionals (including Hospital)</td>
<td>530</td>
</tr>
<tr>
<td>Administration</td>
<td>1750</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3780</strong></td>
</tr>
</tbody>
</table>
✓ JU follows community based educational (CBE) approach in its educational programs
✓ is a national pioneer in CBE
✓ CBE is part of its institutional identity/in our logo

We are in the Community www.ju.edu.et
II. Community Based Education

- What is Community Based Education?
- How is JU exercising?
Community-Based Education (CBE) is a means of achieving educational relevance to community needs.

- It uses community extensively as a learning environment
- Students, teachers, members of the community and representatives of other sectors are actively and continuously engaged in the CBE exercises.
II. Community Based Education Cont.

Community Engagement (CBE) in Jimma University
II. Community Based Education Cont.

- CBE is a means of exposing students to the actual working environment

- Benefits both the students and the community.
II. Community Based Education Cont.

CBE has three phases (strategies):

- CBTP (Community based training program)
- TTP/DTTP (Team/developmental training program)
- SRP (student research)
Community Based Training Program (CBTP)

- Runs in phases from 1st year to graduation (N-1)
- Each phase has specifically defined educational objectives.
- Students as a group (10-12) are assigned to urban, semi-urban or rural communities.
Team Training Program (TTP)

Final year, students posted as a team (10-14 students) in the community

It enables students to:

- work in team in addressing the problems of the community.
- apply their knowledge and skills of their profession
II. Community Based Education Cont.

Developmental Team Training Program (DTTP)

- is for postgraduate students
- is developmental project
  - drinking water,
  - latrine,
  - bridge,
  - library, etc
II. Community Based Education Cont.

- Tables and chair for a Kinder Garden (DTTP)

- Library organized for a school (DTTP)
II. Community Based Education Cont.

- Computer room at a school by DTTP

(by information science students)
II. Community Based Education Cont.

• Road constructed by Technology Postgraduate students by DTTP
Student Research Program (SRP)

- To enhance students’ problem solving skill
  - Problem oriented
  - Scientifically & ethically acceptable
  - Feasible & action oriented
Community engagement in Jimma University

- Health services in 8 health centers and 5 hospitals in Oromia region
Community engagement in Jimma University

- Micro hydro electric power generation for small towns and villages (Kersa, Gera, Shebe, schools, clinics)
Offering training programs at industries (e.g., Horticulture industry)
Community engagement …

- Established community radio

The radio broadcasts its programs on the FM frequency of 102.0 every day to Jimma and its surroundings in local languages.
Community engagement ...

- Established Community School
Community engagement ...

Developed and transferred small scale technologies:

- Coffee solar drier
- "Injera" plate
Community engagement ...

- Electrical chain saw
Community engagement ... 

- Hay box brooder (to grow chicken without mother)
Community engagement ...

- Skills training for high school teachers
Community engagement ...

- Purchased City Buses for Jimma city
Community engagement ...

- IT infrastructure and software developments
  - networking
  - Web development
  - Open softwares (fleet management system, SMIS, BSC)
III. Climate related research projects
(Malaria and coffee pests)

- JU is near Gilgel Gibe Hydro Electric Power Dam
- Largest supply of power (184 MW) since 2004
- Possible effect of the dam on malaria transmission and prevalence
III. Climate related research projects (Malaria and coffee pests)

- Gilgel Gibe Research Center established
- Surveillance on malaria prevalence
- Demography of the community
- Adaptation measures (bed net, early diagnosis, health education)
- Community day at Gilgel Gibe Research Center
III. Climate related research projects (Malaria and coffee pests)

- Climatic variables and malaria transmission dynamics in Jimma, south western Ethiopia (*Journal of Parasites and Vectors*, 2011)
  - Significant association b/n malaria incidence and meteorological variables

- Malaria and water resource development – the case of Gilgel-Gibe Hydro electric dam in Ethiopia (*Malaria Journal*, 2009)
  - Children in close proximity (<3km) are significantly affected than those at distant
Jimma University is located:
- At the heart of coffee origin
- Center for coffee biodiversity
- Coffee fetches >33% of Ethiopian foreign currency

III. Climate related research projects
(Malaria and coffee pests)

Coffee production practice in Ethiopia (Source: Mesele, 2008)
III. Climate related research projects
(Malaria and coffee pests)

- Impact of Climate Change on Coffee Diseases along Altitudinal Variation in South Western Ethiopia (CHIESA) – ongoing research ??
V. Lesson Learnt

- CBE is a relevant educational approach that ensures the relevance of Education to the community and enhance students competence (JU Graduates’ Tracer Study, 2013)

- Where there is water resource development like dam, continuous surveillance of human pests and diseases like malaria is important for early warning system and proper adaptation measures.
Thank You

We are in the community

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