

**Enhancement of Capacity
Building on Rural Road
Research Activities
(Ethiopian Case)**

**by
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Outline

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Background

- **ERA is one of the oldest Road Authorities in Africa.**
- **The Road Research Branch was established in 1965. But it couldn't be as expected.....even we couldn't have our own Design manual especially the specification.**
- **Change comes through research**
- **By having regional specification,..... promote locally available material....**
 - **Cost , Time, Performance of the road**

Establishment of Research Steering Committee

- **This initiative has been financed by AFCAP**
- **The main objectives of the Steering Committee**
 - **To act as a bridge between researchers like universities and the road industry.**
 - **Identification of researches.**
 - **Organizing and dissemination of already completed research projects' out puts.**
 - **To monitor and support on-going research projects.**

Establishment of Research Steering Committee...cont.

- **To endorse the final output from researches.**

- **Dissemination of output results through-**
 - » **Publication**

 - » **Newsletters**

 - » **Best practice reports**

 - » **Workshop**

 - » **Research Information Center....AFCAP**

Establishment of Research Steering Committee...cont.

Member of the Steering Committee

- 6 staffs from ERA**
- Representative from MoWUD**
- All regional and rural roads authorities including ACCRA**
- Ethiopian Road Fund**
- Addis Ababa, Awasa, Bahirdar and Mekelle Universities.**
- Contractors' Association**
- Consultants' Association**

Establishment of Road Research Center

- **ERA is planning to establish dedicated Road Research Center.**
- **The Main Objective of the Research Center**
 - **To provide quality research services to the road industry.**
 - **To support the future demand of road design, construction and maintenance.**

Establishment of Road Research Center...cont.

- **The preparatory work towards the establishment of the center has been commenced.**
- **20ha. land has been allocated**
- **On which purpose-made international standard research center will be built**
- **The building will have purpose made : offices, laboratory, workshops, Road library, conference rooms, trial sections.**

Recently Completed Research Project

1. Performance Criteria and Life Cycle Costing for labour-based gravel roads in Ethiopia

- The project has been completed last year
- Done by TRL with DFID fund
- Objective
 - To establish and promote appropriate engineering standards for labour-based unpaved roads in Ethiopia.
 - To develop planning tools for unpaved roads.

Recently Completed Research Project_Cont...

- **Done on 52 gravel road projects**
- **The output will be very useful for the development of specification for LVR.**
- **Quality Control Guideline for Labour based road Project**
- **Deterioration model..... Simple calculation/software was developedwhich is useful for maintenance planning, maint. Cost**

On-going Research Projects.....Cont...

2. Research on Lime Stone in Southern Region

- **Ongoing research by TRL funded by AFCAP Crown Agent.**
- **Promote the use of locally available marginal material as construction material.**

Recently Completed and On-going Projects_Cont...

- We did trial section on Morocho - Leku
- We are trying to use it as base course material and gravel wearing course.
- Performance monitoring has been started.

3. Research on pavement material in different regions

- Research by TRL funded by AFCAP,
- Looking for the prevalent material in different regions for low volume gravel wearing courses.
- Monitoring performance....specification

Recently Completed and On-going Projects Cont...

4 . Development of Design Manual and Bidding Document for Low Volume Road in Ethiopia

- **Funded by AFCAP**
- **The consultant is from South Africa**
- **Objectives**
 - **to prepare a manual for the planning, design, construction and maintenance and standard bidding documents for low volume roads in Ethiopia.**

Recently Completed and On-going Projects_Cont...

5. Review of Surface Dressing Practice in Ethiopia

- **Consultants are Asphalt Specialists from ARRB and South Africa.**
- **Funded by AFCAP**
- **Main Objective**
 - ❖ **Assess the reason why surface dressing projects could not perform well.**
 - ❖ **Review the design method and specification, quality control mechanism, method of construction, e.t.c.**

Recently Completed and Ongoing Projects....Cont...

Expected Output

- Produce guideline for
 - Design
 - Method of construction
 - Quality control mechanism
- Workshop

Final Message

“Let’s make ourselves ready for change through **RESEARCH** and **THINK BIG** so that we can be on the shortest path to poverty free African Nation.”

THANK YOU

