



## BUILDING THE CAPACITIES OF LOCAL ROAD CONTRACTORS

*“The training programme was comprehensive, focussed and practical. As a result, we now have a wider pool of expertise in the country to support the roads sector development programme in a cost effective manner. We would like to thank the CDE for the support they provided for the training and preparation of a best practice manual that can be used for future training in the country”*

*Mr. Daniel Mengestie,  
Head, Planning & Programme Management Branch  
Ethiopian Roads Authority*



### INTRODUCTION:

Thin bituminous surface treatments are used for surfacing newly built roads with light to medium traffic, and can also be used to maintain roads with heavy traffic. The key purpose of such surface treatments is to give a skid-resistant, dust-free and waterproofing layer to the road surface, and to prevent damages. Despite this benefit, bituminous surface treatment is a declining practice in Ethiopia in favour of the more common asphalt concrete form of construction. Asphalt concrete is however considerably more expensive than surface dressing particularly for low traffic rural roads. Hence, the idea of restoring confidence in road bituminous surface treatments.

### PARTNERS & BENEFICIARIES:

- Ethiopian Roads Authority (ERA)
- Alemgena training centre, Ethiopia
- Local engineers, technicians, foremen & operators (from ERA approved contractors)

### OBJECTIVE(S):

#### Overall:

- To build the capacities of road maintenance contractors through training.
- To develop requisite local skills in the design, construction and maintenance of thin bituminous surfacing.
- To expand the skills base for the provision of cost effective and durable bituminous surface treatment of rural roads in Ethiopia.

#### Specific:

- To develop a modular course covering the principles, design, construction, quality assurance, testing and maintenance of road surface treatments.
- To promote intermediate equipment technologies (IET), especially tractor technology, as cost effective options for roads surface treatments suitable for developing countries conditions.
- To produce training course materials, including a handbook (best practice manual), suitable for a three-week course, to be used by the alemgena training centre for subsequent training.

### ACTIVITIES UNDERTAKEN:

#### Training programme:

- A training course on roads surfacing was developed, including common modules for the three professional groups targetted (engineers, technicians, foremen & operators): “construction of thin bituminous surfacing”, “safety and first aid”.



## Success Story

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- Tailor-made training modules were also developed to meet specific training needs:
  - Engineers: “design of thin bituminous surfacing”,
  - Technicians: “testing and quality control”,
  - Foremen and operators: “operation and maintenance of equipment”.

### *Practical training:*

- On-site training on road surface dressing for operators & foremen.
- In-yard training on operations and maintenance of equipment (cleaning of jets, calibration of distributors).

### **RESULTS ACHIEVED:**

- 98 engineers, 80 technicians and 52 operators and foremen trained.
- Best practice training manual on surface treatment design, construction and maintenance produced.

### **IMPACT:**

The manual will serve as a useful guide to future training on design of roads that require bituminous surfacing, and for maintenance of roads with light, medium and heavy traffic.

### **CDE ADDED VALUE:**

The Ethiopian Roads Authority (ERA) has confirmed the following achievements:

- Significant reduction in the cost of road maintenance due to the increasing involvement of local SMEs in road maintenance;
- The standard of workmanship by SME contractors has improved considerably;
- There is now a much larger pool of trained SMEs with the requisite know-how to address the problem of rural road maintenance;
- The intervention has resulted in an accelerated road network development across the country under the roads sector development programme.

### **FURTHER INFORMATION:**

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