#### THE ROMAN EMPIRE

• The Roman Empire was the first modern society that was kept together with a road network of approx. 65000 km. When they stopped to maintain this road network, the whole empire collapsed

#### **JESAIA 58,12**

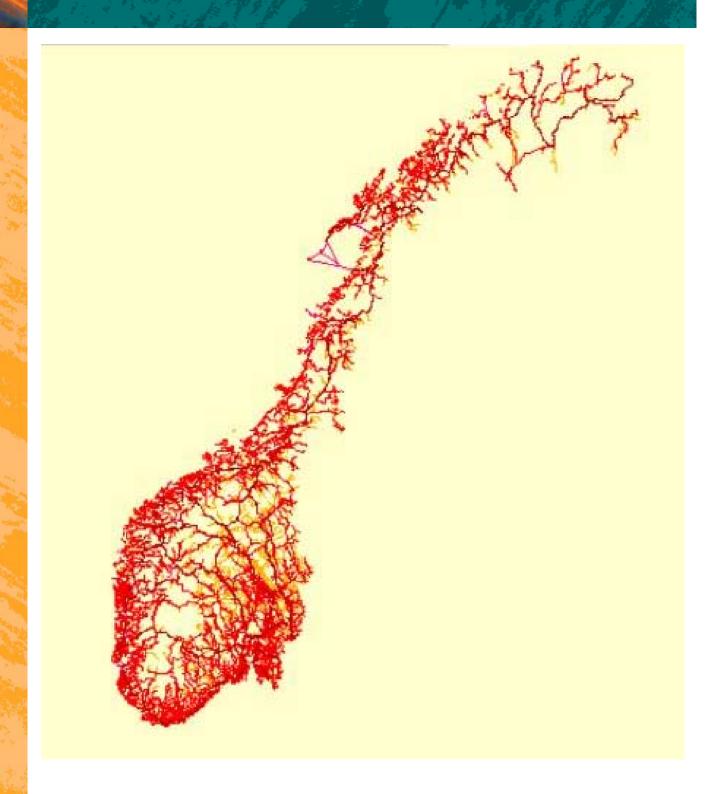
And of thee shall build the old waste places, thou shall raise up the foundations of many generations and thou shall be called The repairer of the bridge, The restorer of paths to dwell in.



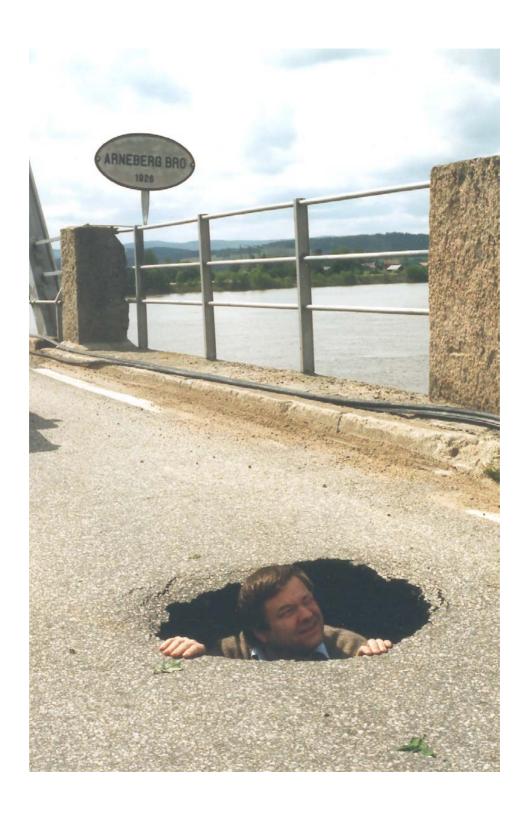




Norwegian Public Roads Administration









Norwegian Public Roads Administration



## Variable road standard in Tanzania



Norwegian Public Roads Administration

#### EXAMPLES OF NEGLECTING MAINTENANCE

- Norway a bridge in Oslo
- Kenya Nairobi/Mombasa road
- Tanzania stream crossing
- Sub-Saharan Africa
- 150 billion US dollars was spent in 3 decades building roads and now a third of the investment is gone
- 85 countries could have eliminated construction costs of 40 billion US dollars by spending 12 billion US dollars



#### A LESSON TO FOLLOW

- Maintain existing roads before funding new ones
- Make sure it is done today and every day. Tomorrow it will be much more expensive

### ANALYSIS OF THE PROBLEM

- Road maintenance is politically unattractive
- There are so many needs in a society
- No reasonable tools available
- No documentation of the consequences of lack of funds
- Maintenance is looked upon as a low status occupation
- Small R&D funds have been devoted to this area



#### **QUESTIONS ASKED**

- What is the economic motivation and output
- Costs of transportation in different road conditions
- Suitability of existing roads to meet the traffic now and later
- What are the financial needs
- Number of accidents, causes and analyses
- Costs of maintenance

## HOW TO SOLVE THE PROBLEM

- Improve the communication
- Establish a decision-making model
- Prepare material and methods
- Establish communication lines to the politicians
- Simple and understandable fact
- Comunicate with the users
- Use public polls
- Road network quality and transport economic



## HOW TO ENSURE THE MOST EFFECTIVE USE OF THE MAINTENANCE MONEY

- A legal and institutional framework
- A clear definition of roles
- A policy framework
- Stable funding for a long time
- Improved management of road maintenance
- Establish guidelines for road maintenance
- Improved education



#### THE INVISIBLE TAX

 The money which is saved in the maintenance budgets by not maintaining the roads, is ultimately paid by the users and the society

## THE ROLE OF THE TECHNOLOGY TRANSFER CENTRES

- Specialize in road maintenance
- Learn from each other
- Organise seminars and conferences about the concequences of neglecting road maintenance
- Tell about methods and practices and come up with good examples

# CHALLENGE TO THE PARTICIPANTS AT THE CONFERENCE

Come up with a good slogan that can sell the message about road maintenance to the decision makers

