

# **Performance-Based Contracts for Management and Maintenance of Roads (PMMR)**

## **Module 3 Compliance monitoring**

# **Purpose of Compliance Monitoring**

**To ensure that the road(s) at any time  
is at the required and agreed  
condition**

# Requirements

**The road condition shall comply with the requirements of the performance standards as discussed in module 2.**

**Examples:**

- **No potholes**
- **Rutting < 3 mm/m**

# Monitoring (Rule no. 1)

**It is the Contractor's responsibility to ensure that the requirements of the contract are met, i.e. that the performance standards does not exceed the threshold as defined in the contract**

# Monitoring (Rule no. 2)

**The Contractor shall act in a proactive way to ensure the requirements of the contract are constantly met.**

**It is not accepted that the Contractor waits for the Client to find and inform him of road sections to be repaired.**

# Monitoring (Rule No. 3)

The Contractor shall prepare and implement a Quality Control Plan for the constant monitoring of the road condition

## **Monitoring (Rule no. 4)**

**The Contractor shall make summaries showing the degree of compliance with the performance standards.**

**In addition the Contractor shall maintain a daily log reporting all deficiency observed and action taken.**

## **Monitoring (Rule no. 5)**

**The Contractor shall in a pro-active way plan his physical works.**

**Example: He must study his summary sheets to identify sections getting close to the threshold values, identify suitable actions and plan and implement these actions**



## **Monitoring (Rule no. 6)**

**Although, it is the Contractors responsibility to maintain the road(s) at the agreed standard, it is recommended that the Client supports the Contractor where possible.**

**It is always better having a Contractor making money – if he is loosing money he may tend to be a little difficult**

# Performance Monitoring

- **Contractors self-control system**
- **Formal monthly inspections**
- **Informal inspections**
- **Road user complaints**

# **Contractors Self Control System (I)**

- **The Contractor shall prepare a Quality Assurance Plan, including inspection log sheets**
- **The Contractor shall actively use the QA Plan**
- **A QA Plan shall be considered as a tool to help the Contractor fulfilling the contract in the most efficient and cost effective way**

# **Contractors Self Control System (II)**

- **The Contractor shall train qualified staff to carry out regularly checks of road condition**
- **The Contractor shall ensure that his staff regularly carries out proper checks of the compliance of the performance standards in accordance with the QA Plan**

# **Contractors Self Control System (III)**

- **The Contractor must ensure that his inspection logs are correct and make copies available to the client**

# Performance Monitoring

- Contractors self-control system
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# Formal Monthly Inspections (I)

## **Purpose:**

**To verify the information presented in the Contractor's monthly statement and to issue the Interim Payment Certificate**

# Formal Monthly Inspections (II)

**How:**

**The Contractor carries out an inspection of a selected number of sections under the supervision of the Project Manager.**

**The inspection records are compared with the inspection previous submitted by the Contractor**



# **Formal Monthly Inspections (III)**

**Based on the findings of the Project Manager (Compliance or non compliance with the contract) errors or misinterpretations in the Contractor's inspection logs and monthly statements are corrected.**

# Compliance Evaluation for Monthly Payments

Sample Specifications for PMMR contracts

12

## Monthly Statement for Contract

Road or road section:

Required Service Level

Length of road at required service level (km)

Contract Name

Road A and Road B

Very Good

34.8

Contract Month: 12 (September 2005)

Service Level Criteria	Required compliance		Actual compliance				Non-compliance		Payment Reduction
	Target	Km <sub>1</sub>	Compliance criteria	Road A	Road B	Total length compliant (km) <sup>2</sup>	Length non-compliant (3) (1-2)	% Payment reduction (4)	Km (5 = 3x4)
1. Road Usability	100%	34.8	Interruption to traffic (km days)	100%	100%	34.8	0	1%	0
								Sub total	0
2 Average Traffic Speed	60 kph		Average speed (per 5 kph below target)	60 kph	60 kph	34.8	0	1%	0
								Sub total	0
3. Road User Comfort	43%	15.0	Corrugation amplitude	12	14	26	0.00	50%	0
			Rut depth	8	6	14	0.96	50%	0.48
			Individual degradations	18	16.8	24.8	0.00	50%	0
			Total area of degradations	18	16.8	34.8	0.00	10%	0
			Road signs	25%	30%	9.5	5.46	25%	1.37
							Sub-total	1.85	
4. Durability	38%	13.2	Vegetation height	18	16.8	34.8	0.00	25%	0
			Vegetation clearance	18	16.8	34.8	0.00	25%	0
			Useable road width	6	3	9	4.22	10%	0.42
			Longitudinal profile	Not evaluated	this month	34.8	0.00	10%	0
			Drainage	12	7	19	0.00	50%	0
							Sub total	0.42	
<b>TOTAL</b>									<b>2.27</b>

Length in km for payment at this service level this month: 32.53

## Payment Summary – Contact PMMR/1

Contract month: 12

Service Level	Network km	Penalty km	Km for payment this month
VERY GOOD	34.8	2.27	32.53
GOOD	87.1	5.62	81.48
FAIR	99.6	7.30	92.3
<b>TOTAL</b>	<b>221.5</b>	<b>16.19</b>	<b>206.31</b>
Total payment due this month	Rate per km x km for payment		

World Bank

# Performance Monitoring

- Contractors self-control system
- Formal monthly inspections
- **Informal inspections**
- Road user complaints

# Informal Inspections (I)

## **Purpose:**

**The Client needs to make random checks to ensure that the performance standards of any road section are met.**

# Informal Inspections (II)

**Informal inspections are carried out by the Client:**

- **At his own initiative**
- **At any time**
- **At any section**

## **Informal Inspections (III)**

**The Client is obliged to inform the Contractor within 24 hours of his finding.**

**The Contractor shall take remedial action as soon as possible.**

**The findings will only in cases of gross neglect by the Contractor result in direct correction of in payments.**

# Performance Monitoring

- **Contractors self-control system**
- **Formal monthly inspections**
- **Informal inspections**
- **Road user complaints**

# Road user complaints

**Requirements for Contractors self-control system, Formal monthly inspections and Informal inspections are included in World Banks sample bidding documents for PMMR, but Road user complaints are not. However, the Client can use Road user complaints in selecting the sections for Formal and Informal inspections.**