



Government of Nepal



# RAP3 Specific Maintenance Groups - Pilot

Feedback Report (1<sup>st</sup>  
Year)



Rural Access  
Programme (RAP)  
Phase 3

September 2017

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# RAP3 Specific Maintenance Pilot

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## DOCUMENT CONTROL

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## ACRONYMS AND ABBREVIATIONS

ARAMP	Annual Road Asset Management Plan
CTEVT	Council for technical Education & Vocational Training
DCC	District Coordination Committee
DFID	Department for International Development
DoLIDAR	Department of Local Infrastructure Development and Agricultural Roads
DRCN	District Road Core Network
DTA	District Technical Assistance
GE	Graduate Engineer (on RAP3 'GE Programme')
IoW	Inspector of Works
IPC	Interim Payment Certificate
IY	Implementation Year (of RAP3)
KEPTA	Karnali Employment Programme Technical Assistance
LRN	Local Road Network
LSGA	Local Self Governance Act
LSGR	Local Self Governance Regulations
NRS	Nepali Rupees
NRSAS	Nepal Road Sector Assessment Study
RAP	Rural Access Programme
RBG	Road Building Group
RCS	Rapid Condition Survey
RMG	Road Maintenance Group
SMG	Specific Maintenance Group
STS	Senior Technical Supervisor
TMO	Technical Management Office
UK	United Kingdom
UC	User Committee
VDC	Village Development Committee

## 1. EXECUTIVE SUMMARY

For the 2016/17 construction season RAP3 launched piloting of a new approach for the performance of Specific Road Maintenance which covers spot improvements to deal with critical access bottlenecks on the DRCN. Piloting was performed in Achham, Dailekh, Doti and Jumla with an annual budget per District of NRs 6 million under RAP3 direct funding. This report presents feedback on this first year of piloting in order to inform the intended further piloting through a 2<sup>nd</sup> year (2017/18 i.e. RAP3 IY4) and is based largely on post-work questionnaires combining the views of RAP3 DTA, DCCs and the SMGs.

The SMG approach was designed as a reaction to earlier problems in the performance of specific maintenance both by conventional User Committee and Small Contractor; approaches used by GoN and extensively adopted by RAP3 in IY1 and IY2. User Committees are prone to 'hijacking' by hidden contractors, tend to use untrained, ill-equipped and largely uncontrolled mass workforce and deliver works of often dubious quality. Contractors on the other hand tend to be confrontational are prone to serious time overruns and are profit-driven often at the expense of work quality. The SMG approach uses groups of 10-20 workers selected from the poorest and most disadvantaged elements within local communities and sought to acknowledge and build on certain experiences of KEPTA as well as those of RAP3 (RBGs and SMGs in particular).

Overall the feedback was very positive and provides a good basis to extend and refine the piloting into a 2<sup>nd</sup> year for demonstration purposes. The approach is based on having a competent team of available workers on call for the annual demands of a road. Thus the trial will continue on the same roads with the same groups as far as possible (but with the addition of Dadeldhura). The key benefits of the approach have been confirmed as:

- Good quality works – further improving as workers gain experience.
- Timely Completion with ability to adjust workload – no partially completed works or carried-over funds.
- An available resource of eager / capable workers from the local communities.

The following table summarises the most common issues presented from the feedback study, each raised by in at least 15 out of the 21 response sets:

Seq.	Issue	Description	Proposed Response
1.	Delay in procurement and implementation	Started later than proposed time due to which working season was insufficient to complete all planned activities. Work began on site before all necessary supplies arrived.	Start field implementation by December. This will ensure at least 6 months available working period before monsoon. TMO to initiate supplies procurement during the monsoon based on predicted RCS and contract flexibility through 'change – order'.
2.	Time lag	Some members left the group before work began due to the gap between member selection and work implementation.	Member selection to take place immediately following Tihar (~Nov.) for new groups.
3.	Training / Refresher	Some DTA staff were not adequately versed in SMG implementation.	GE orientation during workshop, GEs to orient DTA in Nov. / Dec. before implementation on site
4.	IPC Threshold	Payment limit of 60% of district wage insufficient.	Generally final bills typically represented ~25% of contracted work and ~50% of the

Seq.	Issue	Description	Proposed Response
			contract payment. However due to common miss-understanding and supervision effort, proposed to disconnect interim payment amount from attendance. Rather pay 80% of 'estimated work value' e.g. based on approximate observed % of item complete.
5.	Payment interval	1 month although payment every fortnight was originally considered.	Incorporate flexibility of interval in special cases but realistically fortnightly is impracticable. Reiterate no 'advances' (as no supplies need be purchased).
6.	Stores / transportation	No provision for on-site store or transportation of tools back to the HQ after work completion.	Estimates should include provision for on-site store if the following year's SMG implementation has been planned in the same road otherwise transportation to HQ.
7.	Quality of Materials	Quality of crowbar, chisel and gabion boxes could be improved.	Central procurement team and DTA to be extra careful in the process of approving pre-work construction tool and gabion box samples and verification during delivery.

**Table 1 List of most frequent issues in SMG implementation**

## 2. BACKGROUND

Specific Maintenance is a category of road maintenance described in the current ARAMP Guidelines as involving localized repairs and treatments to the road to ensure proper functioning of the different road elements. It targets access bottlenecks at critical sections on the road and is complementary to routine and recurrent activities which need to be conducted in parallel. Typically it might be the full engineering repair at the site of a temporary emergency maintenance intervention.

Specific Maintenance activities have been ongoing on RAP3 since the first implementation year, initially often a combination of Small-Contractors and User Committees. The UC approach however, has often failed to deliver good quality work and is subject to employing hidden contractors and replacing human labour by machinery. Similarly, contractors' work delivery is rarely of acceptable standard and often runs late and spills over into subsequent funding years. RAP3 had been able to limit these drawbacks in its implementation through rigorous monitoring. Nevertheless, in line with the recommendations of NRSAS, in an attempt to deliver good quality specific maintenance safely and make the implementation more transparent, maintenance through formation of Specific Maintenance Groups was piloted in four core maintenance districts – Achham, Dailekh, Doti and Jumla. The objectives were to demonstrate an approach similar to that adopted by KEPTA whereby a group of selected workers undertakes a one-off engineering intervention. RAP's approach is somewhat different to that of KEPTA in that it is hoped to retain the same group of workers over a long term period of several years so that their skills and dedication to their local road develop. The basic design of the approach is set out in a RAP3 Briefing Paper which is included in Annex 2 of this report.

Specific Maintenance has been launched under RAP3 direct funding, with NRs 6M budget allocated to each of the districts which was expected to cover around 120 km (4 Districts of 30 km each) at typically expected intervention requirements of around NRs 200,000 per km. This

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includes cost of labour, material, procurement and management divided over 3 roads in each of the districts. Pilot roads have generally been selected based on least intervention cost per vehicle, as per ARAMP prioritisation procedures through Rapid Condition survey data. Members are selected following standard procedures, similar to RBG in new construction, to ensure the most deserving individual's receive work.

Implementation was planned over a period of 3 to 4 months, completing before the Fiscal year end. Payment was planned through KEPTA style, i.e. monthly interim payments based on attendance at a % of Districts Rate with a single final volumetric measurement and reconciliation payment on completion. The idea behind this approach is to simplify the interim payment procedure thus ensuring that it can be managed on time and with least supervision resources, and to include an element of incentive to complete the works as the final payment will release all earlier 'retentions' and be seen somewhat as a bonus. The final payment is based on a detailed works measurement in total, less all the previous estimated interim payments paid to date.

### **3. FINDINGS**

21 number SMGs were formed with contracts signed between February and March 2017 with intended Final Completion date 15<sup>th</sup> July 2017. All 6 groups in Dailekh and 5 out of 6 groups in Doti completed the planned work within the given time. Achham and Jumla on the other hand brought contracts to a logical closure due to the onset of farming season and end of Fiscal year (and contract) respectively.

After contract closure and final payment of all SMGs, the lessons from each of the group were documented in a standard feedback format for future reference. The feedbacks collected by SMGs were mainly during field visits and through public audit after final payment. The findings, feedback and recommendations in this report have been summarised based on these feedbacks received from all four SMG Pilot districts.

#### **3.1.GROUP FORMATION**

One of the objectives of forming SMGs was to make more transparent and deserving worker selection in comparison to UC and contractors. Members are selected based on the same principles as in RMG and RBG i.e. giving priority to poorest and disadvantaged groups living in reasonable proximity to the road. This helps to target the selection of poor people who work and earn cash. It also minimises the chances of involvement of hidden contracting system in UC's work. All of the districts first advertised it publicly through local radio and then published notice on the notice board of public offices. After this, they sent letters to respective VDCs through DCC requesting for mass meeting to select the SMG members. VDCs arranged the mass meeting with the participation of public and members of other organisation working in the respective VDC. RAP3 representative attended the meeting and made all of them clear about the SMG approach. Members were selected in this meeting publicly on criteria basis (like Marginalized People, Women, Dalits and Financial Condition etc.) and VDC issued the letter putting the name of the selected members to RAP3. But in case of JUM, in the VDCs pressure some extra people were selected than required but still the extras were also selected publicly in the same meeting.

In Achham, Dailekh and Doti number of group members was within the recommended range of 10-20 workers which was fixed as a safe and manageable number. However, that in Jumla exceeded the recommended limit due to pressure from locals to include more than 20 members. This caused over-crowding and a tendency for some workers to sit around while others worked

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with resulting inefficiency. Group composition in each of the SMGs is shown in the following table.

District	DRCN	SMG Ref. #	Members		
			Total	% Female	% Male
Achham	69DR003	SMG -1	14	50	50
	69DR011	SMG -2	14	57	43
	69DR011	SMG -3	14	43	57
	69DR017	SMG -4	15	53	47
	69DR017	SMG -5	16	81	19
Dailekh	60DR010	SMG -1	20	55	45
	60DR010	SMG -2	20	50	50
	60DR010	SMG -3	20	50	50
	60DR031	SMG -1	20	50	50
	60DR031	SMG -2	20	35	65
	60DR033	SMG -1	20	55	45
Doti	70DR001	SMG-1	14	42	58
	70DR001	SMG-2	15	33	67
	70DR008	SMG-3	15	46	54
	70DR008	SMG-4	15	40	60
	70DR006	SMG-5	20	35	65
	70DR006	SMG-6	20	66	34
	70DR006	SMG-7	20	50	50
Jumla	63DR007	SMG -1	25	44	56
	63DR008b	SMG -1	26	54	46
	63DR009a	SMG -1	25	36	64
<b>Total</b>			<b>388</b>	<b>49%</b>	<b>51%</b>

**Table 2 Member Distribution in each Specific Maintenance Group**

### 3.2. WORK DISTRIBUTION

The distribution of work in terms of expenditure in each of the SMGs have been shown in Table 3: Work distribution and % Budget allocation. From this table it is evident that in Achham and Doti, most of the budget was allocated to gabion construction while in Jumla it corresponds to stone transportation (mainly for Gabion construction). Overall, most of the budget was allocated to construction of gabion walls (including all incidentals), followed by roadway stone soling and dry wall.

District	DRCN	SMG Ref. #	SMG Budget Distribution (excl. Procurement)		
Achham	69DR003	SMG -1	Gabion wall (82%)	Dry wall (8%)	Management (10%)
	69DR011	SMG -2	Gabion wall (71%)	Stone Soling (12%)	Dry wall (11%)
	69DR011	SMG -3	Gabion wall (93%)	Management (6%)	Dry wall (1%)
	69DR017	SMG -4	Gabion wall (84%)	Tractor transport (7%)	Management (9%)
	69DR017	SMG -5	Gabion wall (74%)	Stone Soling (17%)	Tractor transport (3%)
Dailekh	60DR010	SMG -1	Earthwork (40%)	Gabion Wall (35%)	Soling+ Dry wall (25%)
	60DR010	SMG -2	Stone Soling (51%)	Gabion wall (30%)	Earthwork (15%)
	60DR010	SMG -3	Gabion wall (85%)	Earthwork (15%)	
	60DR031	SMG -1	Earthwork (56%)	Gabion wall (34%)	Stone Soling (7%)
	60DR031	SMG -2	Earthwork (65%)	Gabion wall (35%)	
	60DR033	SMG -1	Earthwork (94%)	Dry wall (6%)	
Doti	70DR001	SMG-1	Gabion wall (40%)	Stone Soling (30%)	Dry wall (20%)
	70DR001	SMG-2	Gabion wall (60%)	Dry wall (20%)	Stone Soling (10%)
	70DR008	SMG-3	Gabion wall (60%)	Dry wall (32%)	
	70DR008	SMG-4	Gabion wall (65%)	Dry wall (25%)	Stone Causeway (3%)
	70DR006	SMG-5	Dry wall (45%)	Gabion wall (35%)	Stone Soling (15%)
	70DR006	SMG-6	Gabion wall (70%)	Stone Soling (15%)	
	70DR006	SMG-7	Gabion wall (50%)	Dry wall (22%)	Stone Soling (20%)
Jumla	63DR007	SMG -1	Stone transportation (50%)	Earthwork (30%)	Gabion wall (18%)
	63DR008b	SMG -1	Stone transportation (59%)	Earthwork (37%)	Gabion wall (19%)
	63DR009a	SMG -1	Stone transportation (64%)	Earthwork (18%)	Gabion wall (14%)
<b>Overall</b>			<b>Gabion wall (46%)</b>	<b>Earthwork (22%)</b>	<b>Drywall (8%) Stone Soling (8%)</b>

Table 3 Work Distribution and % Budget allocation

### 3.3.WORK COMPLETION

The total available budget allocated for implementing SMG in each of the districts was NRs 6M. This includes cost of material, labour, procurement of tools and safety gear and SMG Management cost. Contract value and total expenditure in terms of wages on civil works and local management costs in each of the groups and SMG budget remaining in each of the districts have been summarised in the table below. All procurement of supplies (e.g. gabion baskets, tools and equipment) was made centrally by RAP3 TMO. Worker insurance was through RAP3 self-insurance procedures rather than through commercial insurance companies.

SN	District	DRCN	SMG Name	Contract Amount (NRs)	SMG Payment (NRs)	Balance (NRs)	Remarks
1	Achham	69DR003	SMG -1	770,428.13	741,705.69	28,722.44	Work truncated
2		69DR011	SMG -2	824,794.57	651,677.11	173,117.46	Work truncated
3		69DR011	SMG -3	818,530.33	677,453.85	141,076.48	Work truncated
4		69DR017	SMG -4	862,767.22	556,887.74	305,879.48	Work truncated
5		69DR017	SMG -5	899,833.88	664,013.71	235,820.17	Work truncated
		<b>Total</b>			<b>4,176,354.13</b>	<b>3,291,738.10</b>	<b>884,616.03</b>
6	Dailekh	60DR010	SMG -1	788,871.12	684,065.45	104,805.67	Complete
7		60DR010	SMG -2	787,928.17	806,798.86	(18,870.69)	Complete
8		60DR010	SMG -3	697,849.23	672,447.02	25,402.21	Complete
9		60DR031	SMG -1	826,607.50	814,543.03	12,064.47	Complete
10		60DR031	SMG -2	762,324.16	747,604.96	14,719.20	Complete
11		60DR033	SMG -1	891,353.45	892,288.95	(935.50)	Complete
	<b>Total</b>			<b>4,754,933.63</b>	<b>4,617,748.27</b>	<b>137,185.36</b>	
12	Doti	70DR001	SMG-1	805,285.79	428,765.96	376,519.83	
13		70DR001	SMG-2	777,347.24	711,271.66	66,075.58	Complete
14		70DR008	SMG-3	462,989.36	457,557.82	5,431.54	Complete
15		70DR008	SMG-4	434,028.93	420,803.75	13,225.18	Complete
16		70DR006	SMG-5	691,985.33	675,558.63	16,426.70	Complete
17		70DR006	SMG-6	464,918.82	461,947.55	2,971.27	Complete
18		70DR006	SMG-7	519,501.84	495,577.00	23,924.84	Complete
	<b>Total</b>			<b>4,156,057.31</b>	<b>3,651,482.77</b>	<b>504,574.94</b>	
19	Jumla	63DR007	SMG -1	925,760.60	580,208.31	345,552.29	Work truncated
20		63DR008b	SMG -1	1,707,574.27	1,426,639.16	280,935.11	Work truncated
21		63DR009a	SMG -1	1,536,626.68	974,516.58	562,110.10	Work truncated
	<b>Total</b>			<b>4,169,961.55</b>	<b>2,981,364.05</b>	<b>1,188,597.50</b>	
<b>Grand Total</b>				<b>17,257,306.62</b>	<b>14,542,332.79</b>	<b>2,714,973.83</b>	

Table 4 Comparison between Contract value (local costs excluding supplies) and Expenditure

### 3.4.IMPLEMENTATION ISSUES

Issues from the feedback reports received from the four DTAs and those that have been separately communicated by DTA have been listed in the table below along with their frequency

and proposed response. In terms of frequency, an issue that has occurred in 6 or less SMGs is considered 'low', between 6 and 15 is 'medium' and more than 15 is 'high'.

Seq.	Issue	Description	Frequency	Proposed Response
1.	Timing	Started later than proposed time	High	Caused by the late launch of the pilot. Start field implementation by around December.
2.	Procurement	Delay in procurement of safety gear	High	TMO to initiate supplies procurement during the monsoon based on predicted RCS and contract flexibility through 'change – order'.
3.	Time lag	Members left the group before work began as there was a large gap between member selection and work implementation	High	Member selection to take place following Tihar for new groups
4.	Training/ Refresher	Provide orientation to DTA	High	GE orientation during GE workshop, GEs to orient DTA in Nov / Dec before implementation on site
5.	IPC Threshold	Payment limit to be increased from 60% of district wage	High	Generally final bills typically represented ~25% of contracted work and ~50% of the contract payment. However due to common miss-understanding and supervision effort, proposed to disconnect interim payment amount from attendance. Rather pay 80% of 'estimated work value' e.g. based on approximate observed % of item complete.
6.	Payment interval	1 month although payment every fortnight was prescribed	High	Incorporate flexibility of interval in special cases but realistically fortnightly is impracticable. Reiterate no 'advances' (as no supplies need be purchased).
7.	Store / transportation	No provision for on-site store or transportation of tools back to the HQ after work completion	High	Estimates should include provision for on-site store if the following year's SMG implementation has been planned in the same road, otherwise transportation to HQ
8.	Quality of Materials	Quality of crowbar, chisel and gabion boxes could be	High	Central procurement team and DTA to be extra careful in the

Seq.	Issue	Description	Frequency	Proposed Response
		improved		process of approving pre-work construction tool and gabion box samples and verification during delivery.
9.	Duration	Not sufficient due to late start	Medium	Timely implementation will ensure at least 6 months available working period before monsoon
10.	Labour rate	Equal wages for skilled and unskilled labour	Medium	Intention is to engage unskilled labour so there will be no variation – equal share for equal attendance
11.	Payment strategy	Misleading as SMGs, despite several meetings continued to believe that payment was based only on attendance	Medium	Attempt to further simplify (e.g. % work finished) and reinforce through briefings by the Supervision team.
12.	Level of Supervision	Insufficient due to lack of technical staff	Medium	TMO to consider addition of staff based on DTA's staffing plan. The plan should include engagement of CTEVT interns to oversee SMG works. Target further simplification in IPC procedure.
13.	Stone	Stones not available nearby	Medium	Quarry site to be assessed before finalising candidate road and cost estimates
14.	Member turnover	Difficulty in payment in case of member replacement	Medium	SMGs to share based on proportional attendance from daily records.
15.	Quality of work	Difficult to maintain good quality due to SMGs inexperience and insufficient technicians	Medium	CTEVT Interns to be fully devoted to overseeing SMG works. There should be better performance in 2 <sup>nd</sup> year as experience increases.
16.	Documentation	Unclear documentation regarding member selection	Low	All DTAs shall be reminded to maintain standard documentation of critical activities.
17.	Group size	Other than recommended 10-20 people per group	Low	DTA to monitor member selection and ensure these are within guidelines.
18.	Public Audit	Difficulty in adjusting payments made for Public Audit arrangement	Low	Remind DTAs to include cost of Public Audit in estimate

Seq.	Issue	Description	Frequency	Proposed Response
19.	Advance Payment	No provision for advance payment	Low	Not to be taken forward since there is no guarantee that the paid labour will continue work. No purchase supply items, so not necessary.
20.	Safety Issues	Minor or Major Accidents	Low	Conduct First Aid training (similar to that given to RBG) and include site safety in SMG orientation to further reduce their occurrence and impact.
21.	Travel distance	Some members had to travel as much as 2 hours per day to reach work site	Low	Need to raise awareness during selection procedure.
22.	Local Coordination Body	Need for a Local Coordination Body to resolve disputes	Low	In future, Rural / Municipalities will cover.

Table 5 Analysis of Issues

## 4. FEEDBACK

### 4.1.DCC'S PERSPECTIVE

DCC's impression of the pilot programme has been very encouraging in all four districts. All DCCs have appreciated the quality of work delivered by SMGs and conceded that SMG work is better than UC and contractors. They have also acknowledged the transparency in this system and praised fair wages. In light of the positive impression, DCCs have requested the project to continue SMG work, raise SMG budget and expand the network to other roads in the district. In addition, DCC Achham suggested timely commencement of implementation to make sure that all planned activities finish on time and employment of skilled labour in the groups to improve quality.

### 4.2.SMG MEMBERS' PERSPECTIVE

Overall, members of Specific Maintenance Groups are satisfied with the approach and are interested in returning to work in the coming season. They are particularly pleased with transparency in payment and females are happy to receive equal pay. Group members are satisfied with the system of interim payments based on attendance, but suggested that they should get more than the 60% of District Wage Rate. Some also suggested provision for advance payment. There were also some who felt it was unjust that skilled labour in the group received the same wage as unskilled ones.

In Achham, farming season coincides with SMG implementation season hence members prefer to start in work December.

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### 4.3.DTA'S PERSPECTIVE

In DTA's perspective SMG Pilot has been able to deliver good quality work and provide employment opportunities and benefit to the locals. This has created a feeling of ownership, and knowledge and experience on road maintenance among the locals. Since member selection and payment are both done directly, these have been transparent and assured.

However, there were a few negative aspects highlighted by DTA. One of the most common one being provision of equal wage for skilled and unskilled labour, which hasn't been much appreciated by skilled labourers in the group. However, the initial selection of skilled persons seems contrary to the poorest of the poor principles. Similarly, DTA reckons that payment should be more flexible and not restricted to 60%, especially after the first payment.

Furthermore, it was difficult to convey the payment strategy to SMGs who despite several meetings believed that they are paid based on attendance irrespective of work delivered. Another difficulty faced by DTA was difficulty in adjusting payments for replaced members.

## 5. COMPARISON BETWEEN SMG AND OTHER APPROACHES

In comparison between User Committee and SMG, it was noted that this SMG model had easier documentation and quality control than UC, the latter also due to continuous supervision from DTA. It is also found to be more transparent in payment and throughout implementation. Contractors are driven by profit, seeking to minimise their inputs and investments often at the cost of quality. They are also less serious about timely completion.

The first noticeable benefit with SMGs was a better and more consistent quality of works. The workers seemed to pay more attention to the guidance given by the supervision and this may be down to a greater sense of their ownership in the road and prospect of future years of engagement. In a number of cases where a group has done a number of similar gabion structures there have been reports of ascending quality in the later structures as the group gained experience and competence.

Another key benefit was that the works were all brought to a tidy close at the end of the season (despite the late launch of the pilots). This could be attribute to group attitude and the fact that RAP3 had made it clear that there would be no carry over (to next implementation year) of unspent funds.

In the SMG procedure, supplies (materials, tools and equipment) are centrally purchased and whilst there were a few minor deficiencies the quality of provisions is far greater than that observed by Contractor or conventional User Committee.

A further merit of the system is that all the wages are known to go directly into the pockets of the most needing people.

## 6. DTA SUGGESTIONS

Based on the pilot, DTAs have made several recommendations for the next implementation phase. One of the most common recommendations was DTA orientation regarding SMG implementation as the approach is new to DTA as well. Another collective opinion was proper planning, so that there isn't a large gap between member selection and work implementation. Some members left the group before work began due to time lag. DTAs also suggested timely

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procurement of goods and safety gear as most of the SMGs began work prior to receiving gum boots.

DTAs also mentioned that management was particularly difficult due to limited technical staff and recommended additional field based staff. DTA Achham further added that it would be easier to resolve disputes if there had been a coordination body. They also recommended commencing work in December/January as this year SMG working season collided with farming season.

## **7. CONCLUSIONS**

Overall the pilot programme has been successful in reducing hidden sub-contractors and delivering quality work and enabling deserving locals to benefit directly. In the next implementation phase (2<sup>nd</sup> year), timing is crucial to make sure that procurement and work implementation align with plan. Also procured materials and work need to conform to acceptable standard. In addition, while the payment strategy itself is adequate, IPC mechanism will be revisited. Next year's estimate should also include elements such as store/transportation of materials as suited, greater consideration of the sources of rock and associated transportation issues and Public Audit. With these recommendations the programme will be continued in all four districts targeting the same roads and workers and with the addition of Dadeldhura as it is a Core Maintenance district now.

DTAs need to revisit the assignment of their supervision teams and to ensure that CTEVT interns are timely engaged, mentored and subsequently considered for engagement on the team in junior STS or loW positions.

For the coming year, provisions for procurement of supply items has been launched much earlier using estimated demands that can be fine-tuned following the RCS through contractual 'change orders'.

During the 2<sup>nd</sup> year of implementation it is also intended to produce a 'SMG Guideline' setting out all the associated procedures and paperwork including the 'SMG Engagement Contract' and 'Job Card' etc. that are already in use. This will form the basis of a scaling-up of the approach depending on fund source and availability through engagement with new Rural / Municipalities.

## **ANNEX 1: SMG QUESTIONNAIRE FORMAT**

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 SMG Feedback Report – Work Completion Questionnaire (for each contracted Group):
 

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#	Aspect	DTA Response / Comments
<b>1.</b>	<b>General Data</b>	
1.1	District:	
1.2	DRCN Ref / Name:	
1.3	DRCN Length (km):	
1.4	Pavement Type:	
<b>2.</b>	<b>Contract Data</b>	
2.1	SMG Ref (Name / #):	
2.2	Contract Value (NRs) – ‘labour component’:	
2.3	Approx. total Contract Value (NRs) – ‘labour & materials’:	
2.4	Labour Cost (% of total implementation cost):	
2.5	Total value as proportion of Road’s total annual Specific Maintenance needs:	
2.6	Contract Start & (due) Finish Dates:	
2.7	Contract Duration (weeks / months):	
2.8	Main Work Items (& proportion of each by value):	e.g. Stone soling 30% Gabions 40%, etc.
2.9	Number of work site locations (give Chainages also):	
2.10	Total Road Length covered (km):	
<b>3.</b>	<b>Group Composition / Formation</b>	
3.1	Number of Workers (Total / M / F):	
3.2	If different from 10-20 member target, why?:	
3.3	Percentage of Women (%)	
3.4	Worker Selection (method used?):	
3.5	Quality of Tools & equipment:	
3.6	Sufficiency of Tools & Equipment (#’s / types):	
<b>4.</b>	<b>Implementation</b>	
4.1	Issues relating to stone availability?:	
4.2	Details of Training given:	
4.3	Work Quality Issues:	
4.4	Supervision Team (composition?):	
4.5	Supervision Frequency (average):	
4.6	Adequacy of First Aid Kit provision:	
4.7	Average daily ‘site input’ of group (hrs):	
<b>5.</b>	<b>Payment / Valuation</b>	
5.1	Payment frequency relative to 2 week requirement:	
5.2	Issues relating to ‘60% attendance’ interim valuations:	
5.3	Average payment interval:	

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#	Aspect	DTA Response / Comments
5.4	Total number of payments made:	
5.5	Method of making payment (wage distribution):	
5.6	Final Contract Value (NRs) – ‘labour component’:	
5.7	‘Bonus’ Paid <u>over</u> ‘Attendance rate’ in final bill (NRs):	
<b>6.</b>	<b>Timing</b>	
6.1	Actual Completion Date:	
6.2	Actual Completion Duration:	
6.3	Reasons for Lateness (if late why late?):	
<b>7.</b>	<b>Safeguards</b>	
7.1	Issues regarding worker / group misconduct (if any):	
7.2	Accidents (if any):	
7.3	Accident Compensation Total - NRs (if any):	
7.4	Adherence to ‘Safety Officer’ procedures (e.g. Card and nominee):	
7.5	Details of camping provisions (if any):	
7.6	Details of Public Audits:	
7.7	Details of worker misconduct (if any):	
<b>8.</b>	<b>Feedback</b>	
8.1	Feedback from <b>DCC</b> (interview) – at least 4 points:	1. 2. 3. 4.
8.2	Feedback from <b>SMG</b> (interview) – at least 4 points:	1. 2. 3. 4.
8.3	<b>Positive</b> Aspects of Approach (DTA perspective) – at least 4 points:	1. 2. 3. 4.
8.4	<b>Negative</b> Aspects of Approach (DTA perspective) – at least 4 points:	1. 2. 3. etc.
8.5	DTA’s recommendations for improving (approach, documentation, etc.) – at least 4 points:	1. 2. 3. etc.
8.6	DTA’s Summary Opinion of Approach (statement):	
8.7	Perception of performance relative to conventional UC / Contractor (DTA’s):	
<b>9.</b>	<b>Others</b>	
9.1		

**ANNEX 2: BRIEFING NOTE 047 – SPECIFIC MAINTENANCE  
GROUPS (DATED DEC. 2015)**

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## Briefing Note 047: Specific Maintenance Groups

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### 1. Introduction / Background

The category 'Specific Maintenance (SM)' relates to heavy maintenance repairs that feature spot-treatments at localised access bottlenecks. In terms of prioritisation it lies after routine and recurrent (RMG-approach) and before engaging Improvements ('periodic' does not feature on earthen roads). Typically the annual requirement for SM is ~ NRs 200,000 / km (whereas RMGs cost ~ NRs 50,000 / km). Currently the total cost of providing RMG coverage on ~ 2,000 km of trafficable DRCN in RAP3's 10 'maintenance districts' is ~ NRs 90m (or GBP 600,000) per year.

RAP3's YR1 & YR2 SM investments have been spent through a combination of Small-Contractor and User Committee procurements. The apportioning has largely been left to DDCs and the choice made based on criteria such as the higher speed by which UCs can be engaged, the legislative budget ceiling cap on UC's (currently NRs 6M per contract) and the fact that UCs are not permitted to subcontract or use heavy equipment. However the UC approach is subject to abuse such as by the use of hidden contractors rather than beneficiary workers, substitution of workers by machine and poor work quality and safety provisions. RAP3 has been able to make significant improvements in these areas through better supervision and planning. However the gist of NRSAS was a recommendation to move away from UCs to private sector Contractors due to the transparency issues.

The objective of SMG piloting would be to improve Users' Committee system through proper selection of group members (same as RBG in new construction) following standard procedure. This helps to target the selection of poor people who work and earn cash. It also minimise chances of involvement of hidden contracting system in UC's work. Ultimately, broader aim is to revisit UCs provision given in LSGA, 2055 and LSGR, 2056 to make it pro poor so that Cash for Work (like KEP) concept can be expanded nationwide by influencing GoN policy.

In RAP3's YR-3 plan the present LRN budget to finish current commitments is running out and can stretch as far as RMG only for maintenance in YR-3. However, if LRN were to receive additional funds (e.g. from Expansion) these would logically be applied to filling the current DDC funding gap for SM before applying remainder to Improvements (primarily small bridges). RAP3 sees potential to substitute part of a future UC funding by SMGs and proposes to trial this approach first in ACH, DAI and DOT.

### 2. Proposed Approach

Specific maintenance is identified and prioritised road-wise on basis of least cost per vehicle. SM works have been identified in the current draft ARAMPs under preparation but are largely underfunded due to RAP3's (& DDC's) shortage of funds. Any additional funds applied by RAP3 to ARAMPs would first be assigned to SM following established prioritisation procedures. Although the DRCN in the 3 districts amounts to ~1,090 km, only about 650 km is considered trafficable and currently under RMGs (ACH 293km; DAI 155km and DOT 204km). 650 km of DRCN implies an average total yearly SM cost of ~NRs 130M or GBP 875,000. RAP proposes to launch SMGs under direct-funding as follows:

- 1) Form groups of typically 10-20 workers by selection from poorest / most disadvantaged on initially 3-4 prioritised roads per district of typically 5-15 km (from ARAMP). Number of groups per road and workers per group will depend on road length and configuration of required works. Typically 30km per District in YR3 trial (costing 30 x NRs 200,000 = GBP 40,000, say GBP 120,000 – 150,000 over 3 Districts for 1<sup>st</sup> year trial).

- 2) SM works already identified from RCS in ARAMPs (predominantly Gabion retaining walls – typically 50%, followed by stone soling then dry-stone walls, side drains, localised cutting and filling etc.). Design works (by SC) following plan confirmation.
- 3) Procure materials (largely gabion baskets), tools and safety equipment (gabions generally too valuable for NRs 300,000 direct procurement threshold, so centrally procure to RAP3 NEP store and distribute; other gears can be procured relatively quickly through direct procurement). Works implication: start cutting / earthworks, stone gathering with gabion filling to follow.
- 4) Provide training to workers, demonstration works, on-the-job-training, support and supervision (SC).
- 5) Works will be short-term, typically 3-4 month engagement contracts. No guarantee of work continuity however generally these high-ranked roads will feature even more strongly in future year plans (reduction of backlog work means less cost per vehicle in subsequent year’s ARAMPs). Use ‘Job-Card’ system based on KEPTA (so that in future years same trained workers can be recalled).
- 6) Equipment support e.g. excavator for bulk works / tractor for transportation of stone – direct procurement thru DTA.
- 7) Payment through KEPTA style approach (‘direct-funded’ similar to RBGs; RMGs are through DDF) i.e. monthly interim payments based on attendance at a % of Districts Rate (say 60%) with a single final volumetric measurement and reconciliation payment on completion (generally a positive ‘bonus’).

### 3. Plan

Immediate identification of candidate roads and broad outline of required works from current draft ARAMPs. Works design to yield material / tools procurement qualities and number of workers required in group (from norms to yield 3-4 month construction period). Start initial earthworks and stone collection upon delivery of safety gear and tools with gabions to follow through more time consuming NCB.

#### 3.1 Funding anomaly

In YR1 and YR2 (particularly in COREs), RAP3 heavily supported SM. In YR3 there is a gross shortage of fund due to setting aside sufficient budget to complete New Construction in YR4. Now with the near certainty of Expansion there seems little logic in severely dropping YR3 RAP3 maintenance investment just to again increase it in YR4 after expansion; better to keep a broadly uniform rate of investment. RAP3 needs to see that all SM is funded in Cores (by RAP3 plus encouraging DDC to fund maximum from other sources) before it can justify funding Improvements (i.e. small bridges programme). Can DFID permit RAP3 to ‘borrow’ out of YR4 New Construction budget-reserve to fund YR3 Specific Maintenance (in Cores) on the understanding this will be replenished under Expansion? However, £ 120,000 budget is planned for year 3 which basically covers labour, material, equipment parts. Design and supervision cost will be covered from regular LRN maintenance budget.

### 4. Risks

Seq.	Risk	Means of Addressing
1.	Identification of Workers	Develop based on RAP3 tried and tested procedures for RBG and RMG. Assumed that SED/NGO team will lead.
2.	Rate of launch	Target earliest launch (in 3 districts for broad comparison), gradual substitution/improvement of current UC approach.
3.	Timely procurement of materials, tools equipment & accident insurance	Use direct funding mainly thru DTA. Procure tools & equipment using speedy ‘direct procurement’ procedures (DTA), gabions by NCB (TMO to central NEP store or to site), ‘self-insure’ thru RAP3 compensation scheme.

Seq.	Risk	Means of Addressing
4.	Local Resistance – existing UC groups may oppose / reduced opportunity for local Contractors	Start small as a trial/pilot in conjunction with other UCs and gradually substitute / augment over a few years. RAP3 is trying to leverage more GoN (principally SWAp) funds into SM and should support NRSAS in promoting opportunity for private sector contractors – therefore the size of SMG approach should be capped initially to a minor share.
5.	Effects of current transport / fuel crisis	Unlikely to affect the workers themselves who live relatively close to the works. Mainly affects delivery of supplies (materials, tools & safety items) and also the mobility of supervision staff – however, no greater risk than other ongoing RAP3 works.