



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Maintenance Branch

ARMP software

(Version 3.0, 2021)

User's Manual

April, 2021



254 Shree Ekata Marga, New Baneshore, Kathmandu-34, Nepal
Phone 977-1-4104307, 4104319
Fax 977-1-4104307
Email: support@softwel.com.np
Web: www.softwel.com.np

Table of Content

1. Menu Bar	1
2. System Menu	2
2.1 Login Screen	2
2.2 User Management	2
2.3 Change Password	3
2.4 View Users (For Admin Only)	3
2.5 Add Users Sub Menu (For Admin Only)	3
2.6 View User Log (For Admin Only)	4
3. Road Network	5
3.1 Edit Network Data	5
3.2 Upload Road Network	6
3.3 Pavement	7
4. Rates Menu	8
4.1 Routine Labour Rates (For Admin Only)	8
4.2 Reactive Item Rates	9
4.2.1 Labour Tab	9
4.2.2 Material Tab	9
4.2.3 Equipment Tab	10
4.3 ARMP Budgetary Items (Admin Only)	11
4.4 ARMP Budgetary Rates	12
5. ARMP Menu	13
5.1 Road Register	13
5.1.1 Division wise Road Register	13
5.1.2 District wise Road Register	14
5.2 Regular Maintenance	15
5.2.1 Routine	15
5.2.2 Reactive	16
5.2.3 Combined	17
5.2.4 Bridge Routine	18
Prepare Bridge Routine Details	18
View Routine Summary	19
5.3 Periodic Maintenance	20
5.4 Responsive Maintenance	21
5.4.1 Select Links	21
5.4.2 Prepare Details	22
5.4.3 View Summary	23
5.5 Road Side Maintenance	24
5.5.1 Select Links	24
5.5.2 Prepare Details	25
5.5.3 View Summary	25

5.6	Emergency Maintenance	27
5.6.1	Select Links	27
5.6.2	Prepare Details	28
5.6.3	View Summary.....	28
5.7	Bridge Maintenance.....	29
5.7.1	Select Bridge	29
	Select Bridge for Minor Maintenance	29
5.7.2	Prepare Detail.....	30
5.7.3	View Summary.....	31
5.8	Rehabilitation.....	32
5.8.1	Select Links	32
5.8.2	Prepare Details	33
5.8.3	View Summary.....	33
5.9	Reconstruction.....	35
5.9.1	Select Links	35
5.9.2	Prepare Details	36
5.9.3	View Summary.....	36
5.10	Upgrading.....	38
5.10.1	Select Links	38
5.10.2	Prepare Details	38
5.10.3	View Summary.....	39
5.11	Summary Sub Menu	40
5.11.1	Division Summary	40
5.11.2	FHSMO Summary.....	41
5.11.3	National Summary	42
5.12	Map	43
5.13	Help Sub Menu (About)	44

1. Menu Bar



System: Allows users to create new user, change password, view users, login and logout/quit.

Road Network: Allows admin users to update the road network including dynamic segmentation using pavement data (width, last resurface etc)

Rates: Allows users to view routine labour rates, work item and recurrent maintenance rates.

Norms Allows users to view routine and recurrent norms.

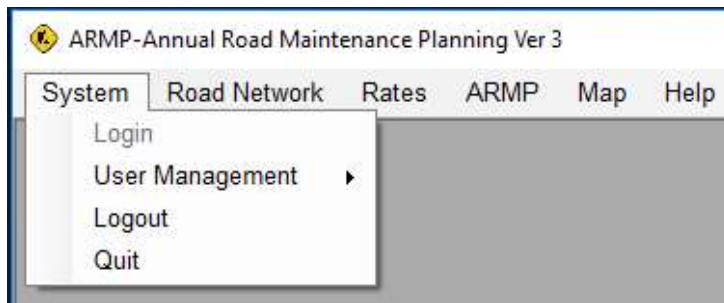
ARMP Provides users to perform the following

- To view road register
- To view details related to regular maintenance cost estimate and reactive maintenance/periodic maintenance/road side maintenance
- To view details related to rehabilitation/reconstruction and upgradation of selected roads
- To view bridge routine details
- Select bridge for routine maintenance cost calculation, minor bridge maintenance details and its summary
- To view Annual Road Maintenance Summary taking into consideration a particular region/division/nation.

Map: Allows users to view map of the assessed data.

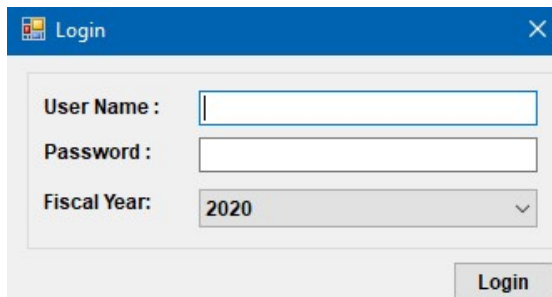
Help: Provides brief detail about the software like version number etc.

2. System Menu



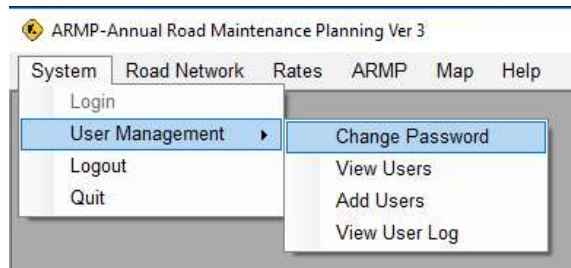
Within the **System** menu, users are provided with the option to login into the tool. Further, within the option of **user management**, one can change his/her login password. For users who login as 'Admin', they are able to view/add users. **Logout/Quit** options are also provided in this menu.

2.1 Login Screen



So as to prevent unauthorized access to the tool, users are supposed to login using a proper **username** and **password**. They can also choose the fiscal year, e.g. 2012 or 2013 for which the details are to be viewed.

2.2 User Management



By clicking on the user management sub menu, the user is provided with four options- change password, view users, add users and view user log.

2.3 Change Password

User ID :

Old Password :

New Password :

Retype Password :

To change the password, details such as user id, old password and new password are to be entered and 'Change' button is to be pressed for successfully changing the password.

2.4 View Users (For Admin Only)

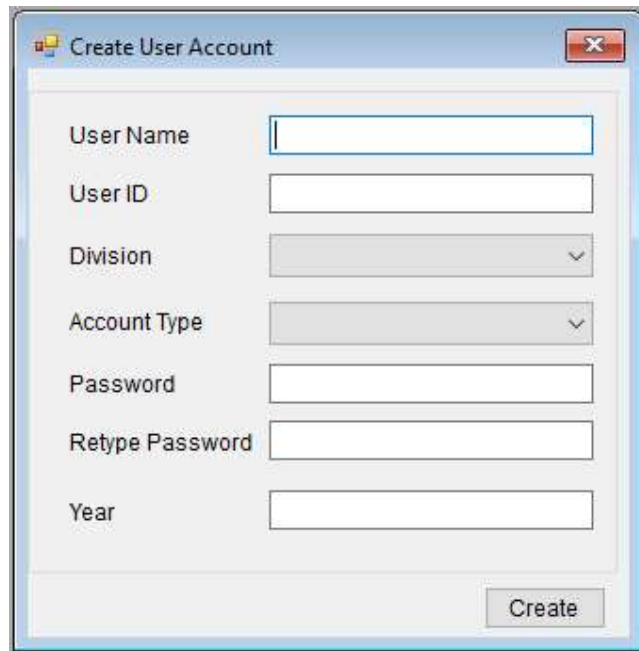
For users with 'Admin' rights, it is possible to view all the users who are currently using the system. To view the same, view users' option within the user management sub-menu is to be selected.

Admin users are able to view details such as name of the user, user id, login type (Editor/Admin/User) and the date on which the account was created.

User ID	User Name	User Type	Division Access	Created Date
Baglung	Baglung	Editor	Baglung	2015/03/03
Biratnagar	Biratnagar	Editor	Biratnagar	2015/03/03
Butwal	Butwal	Editor	Butwal	2015/03/04
Central	Central	User	Central	2015/03/03
Chandranigah...	Chandranigahapur	Editor	Chandranigah...	2015/03/04
Charikot	Charikot	Editor	Charikot	2015/03/04
Chaurjahari	Chaurjahari	Editor	Chaurjahari	2015/03/04
Damak	Damak	Editor	Damak	2015/03/03
Damauli	Damauli	Editor	Damauli	2015/03/04
Dang	Dang	Editor	Dang	2015/03/04
Dhankuta	Dhankuta	Editor	Dhankuta	2015/03/03
Doti	Doti	Editor	Doti	2015/03/04

2.5 Add Users Sub Menu (For Admin Only)

Admin users are able to add new users by selecting the '**Add Users**' option within the **user management** sub menu.



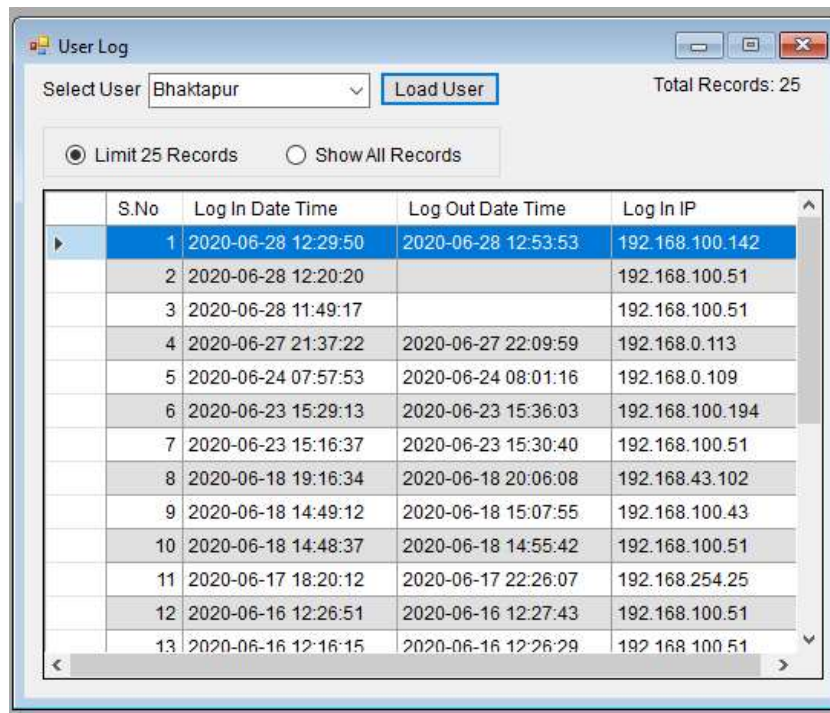
The 'Create User Account' dialog box contains the following fields and controls:

- User Name: Text input field
- User ID: Text input field
- Division: Dropdown menu
- Account Type: Dropdown menu
- Password: Text input field
- Retype Password: Text input field
- Year: Text input field
- Create: Button

To add new users, a number of details are to be provided such as user name, user id, division (Eastern/Central/Western/Mid-Western/Bhaktapur/Dhankuta etc.), account type (user/admin/editor), password and the current year.

2.6 View User Log (For Admin Only)

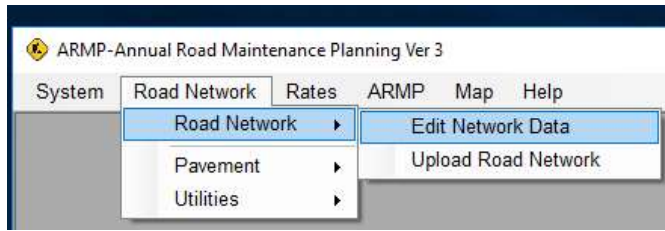
For users with 'Admin' rights, it is possible to view log of all the users including login time, logout time and the user's IP address using the system.



The 'User Log' dialog box displays a table of user login records. It includes a 'Select User' dropdown menu set to 'Bhaktapur', a 'Load User' button, and radio buttons for 'Limit 25 Records' (selected) and 'Show All Records'. The table shows 13 records with columns for S.No, Log In Date Time, Log Out Date Time, and Log In IP. The total number of records is 25.

S.No	Log In Date Time	Log Out Date Time	Log In IP
1	2020-06-28 12:29:50	2020-06-28 12:53:53	192.168.100.142
2	2020-06-28 12:20:20		192.168.100.51
3	2020-06-28 11:49:17		192.168.100.51
4	2020-06-27 21:37:22	2020-06-27 22:09:59	192.168.0.113
5	2020-06-24 07:57:53	2020-06-24 08:01:16	192.168.0.109
6	2020-06-23 15:29:13	2020-06-23 15:36:03	192.168.100.194
7	2020-06-23 15:16:37	2020-06-23 15:30:40	192.168.100.51
8	2020-06-18 19:16:34	2020-06-18 20:06:08	192.168.43.102
9	2020-06-18 14:49:12	2020-06-18 15:07:55	192.168.100.43
10	2020-06-18 14:48:37	2020-06-18 14:55:42	192.168.100.51
11	2020-06-17 18:20:12	2020-06-17 22:26:07	192.168.254.25
12	2020-06-16 12:26:51	2020-06-16 12:27:43	192.168.100.51
13	2020-06-16 12:16:15	2020-06-16 12:26:29	192.168.100.51

3. Road Network



The road network menu provides access to edit the network data including uploading of the road geometry using shape files. It also provides tools for creating sections within link with chainages for the various pavement types, resurfacing/construction dates and the road condition (IRI, SDI) and the traffic data.

3.1 Edit Network Data

The Basic road network data can be edited or even road link deleted using this tool. Once deleted the road link is also deleted from the map.

S.No	Road Ref No	Link Code	Link Name	From Chainage	To Chainage
16	NH01	NH01-008	Budhi Khola-Itahari	91.05	92.4
17	NH01	NH01-009	Itahari-Sakhawa Gachhi	92.40	107.6
18	NH01	NH01-010	Sakhawa Gachhi-Sunsari bridge	107.64	111.0
19	NH01	NH01-011	Sunsari bridge-Koshi Barrage	111.05	134.5
20	NH01	NH01-012	Koshi Barrage-Bharadaha	134.93	140.5
21	NH05	NH05-003	Ratuwa Nadi - Rangeli	47.97	66.3
22	NH05	NH05-004	Rangeli - Biratnagar	66.38	89.6
23	NH05	NH05-005	Biratnagar - Laukahi	89.62	122.7
24	NH06	NH06-001	Chhatara - Barahaksetra	0.00	4.6
25	NH07	NH07-002	Koshi New Bridge - Charaghatti	19.98	43.5
26	NH07	NH07-003	Charaghatti - Kalabajar	43.56	55.2
27	NH07	NH07-004	Kalabajar - Chatara	55.20	65.5
28	NH08	NH08-001	Rani (IB) - Biratnagar	0.00	6.6
29	NH08	NH08-002	Biratnagar - Kanchanbari	6.64	8.2
30	NH08	NH08-003	Kanchanbari - Duhabi	8.22	16.4

Geometry:

Road Class: Road Ref No:

Road Name:

Link Code:

Link Name:

Link Origin:

Link Destination:

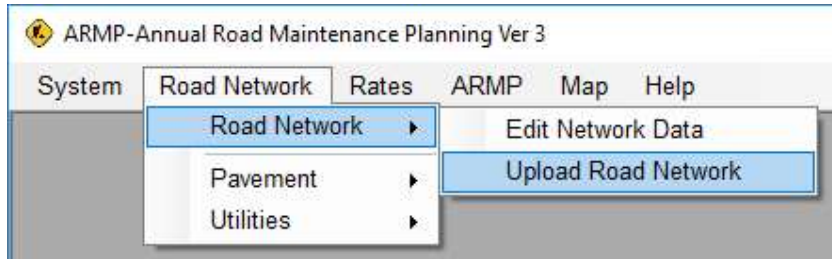
From Chainage: To Chainage:

Length (Km):

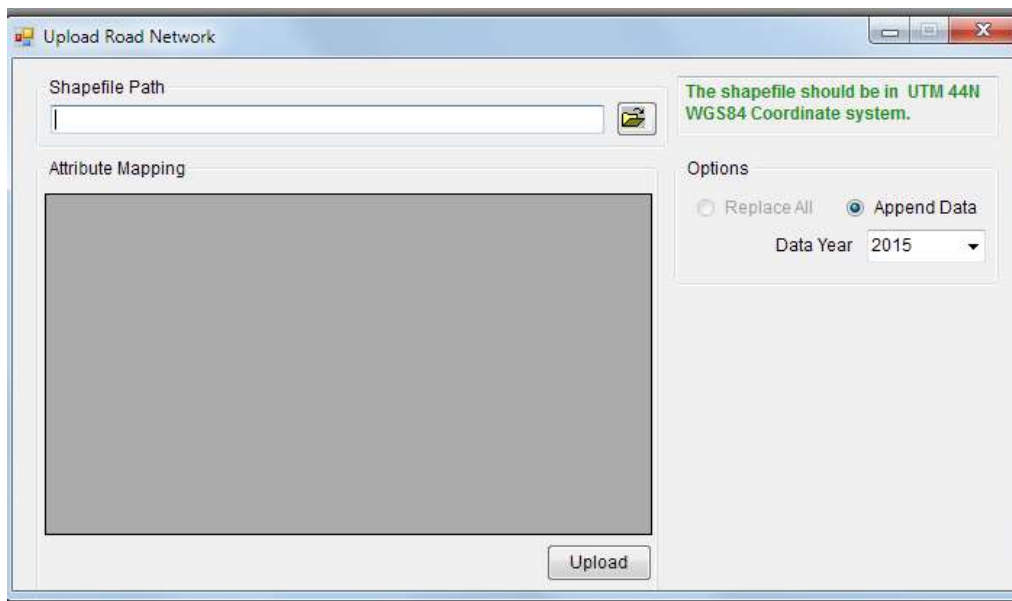
District: Division:

3.2 Upload Road Network

The geometry of the road network can be uploaded using this tool.



Basic attribute mapping is essential to uniquely identify the road (e.g road code etc.). The geometry should be UTM Zone 44N coordinate system.



3.3 Pavement

The pavement information is tool for dynamic segmentation of the road links by various parameters. Links sections can be defined using 'From' and 'To' Chainages and various parameters can be provided and the software will break the links accordingly.

Pavement Information

Select Road Ref No: Select Link:

Link Name:

Link Start Ch: Link End Ch: Link Length:

	From Chainage	To Chainage	Section Length	Pavement Type	Pavement Width (m)	Last Resurface Year	SDI	IRI
▶	0.00	4.00	4.00	STGB	7.33	2014	2.5	5.8
	4.00	6.64	2.64	STGB	7.33	2011	2.5	5.8

Entry Type
☒ Chainage ☐ Longitude/Latitude

From Chainage: To Chainage:
 Longitude: Longitude:
 Latitude: Latitude:

Pavement Type: Thickness:
 Base Thickness: Sub-base Thickness:
 Pavement Width: Formation Width:
 No of Lanes: Sub-grade Soil:

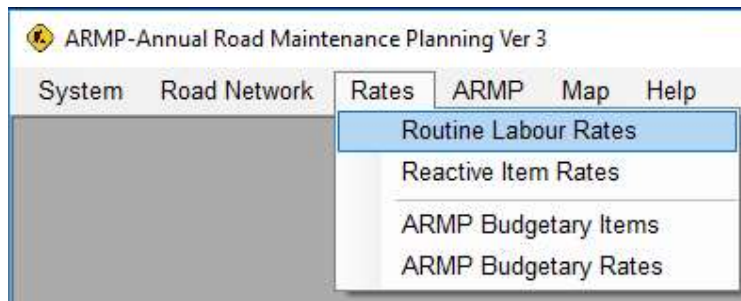
Left Shoulder Width: Right Shoulder Width:
 Left Shoulder Type: Right Shoulder Type:

Last Update: Inventory Year:
 Update Notes:
 Program/Project:

Construction Year: Last Resurface Year:

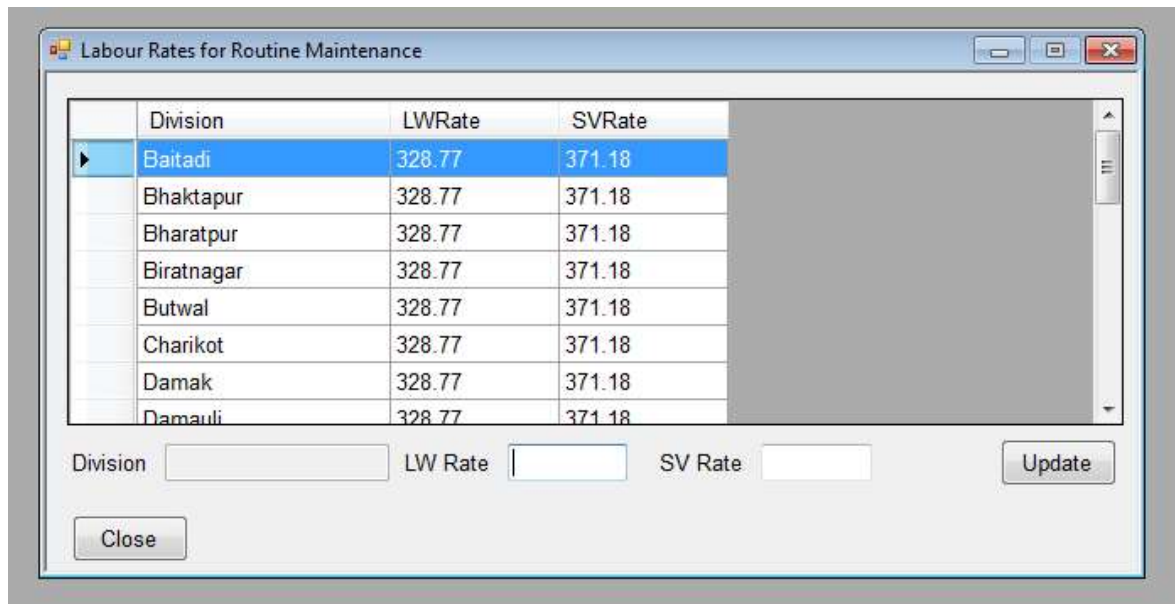
SDI Value: IRI Value:
 AADT Value: Commercial Vehicle:

4. Rates Menu



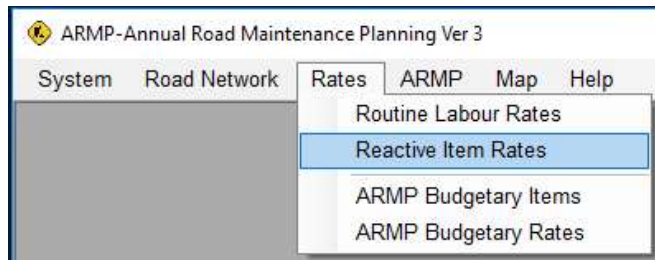
Within the rates menu, users are able to view the routine labour rates (For Admin only). Work item and recurrent maintenance rates can also be viewed within the menu.

4.1 Routine Labour Rates (For Admin Only)



Admin users are able to view the routine labour rates for various divisions of the country and are also able to update the corresponding LWRate/SVRate.

4.2 Reactive Item Rates



Within the Reactive Item Rates submenu, Users have to fill the Reactive item rates.

4.2.1 Labour Tab

Item Code	Item	Unit	Rate	Rate Source
L001	Skilled Labour	md	900.00	District Rate
L002	Unskilled Labour	md	750.00	

Users should enter current district rate of skilled and unskilled labour rates.

4.2.2 Material Tab

Item Code	Item	Unit	Rate	Rate Source
M001	Aggregate (Bituminous Concrete)	cum	1,944.00	
M002	Aggregate (Base Course)	cum	1,744.00	
M003	Sub-base Material	cum	1,497.00	
M004	Bitumen MC - 800	tonne	79,890.60	
M005	Emulsion for tack coat	tonne	69,040.60	
M006	Water	kl	200.00	

Users should enter the rate for materials. The rate should include all production and transport cost.

4.2.3 Equipment Tab

Rate Entry

Division: Baglung Load Year: 2019

Labour Material Equipment

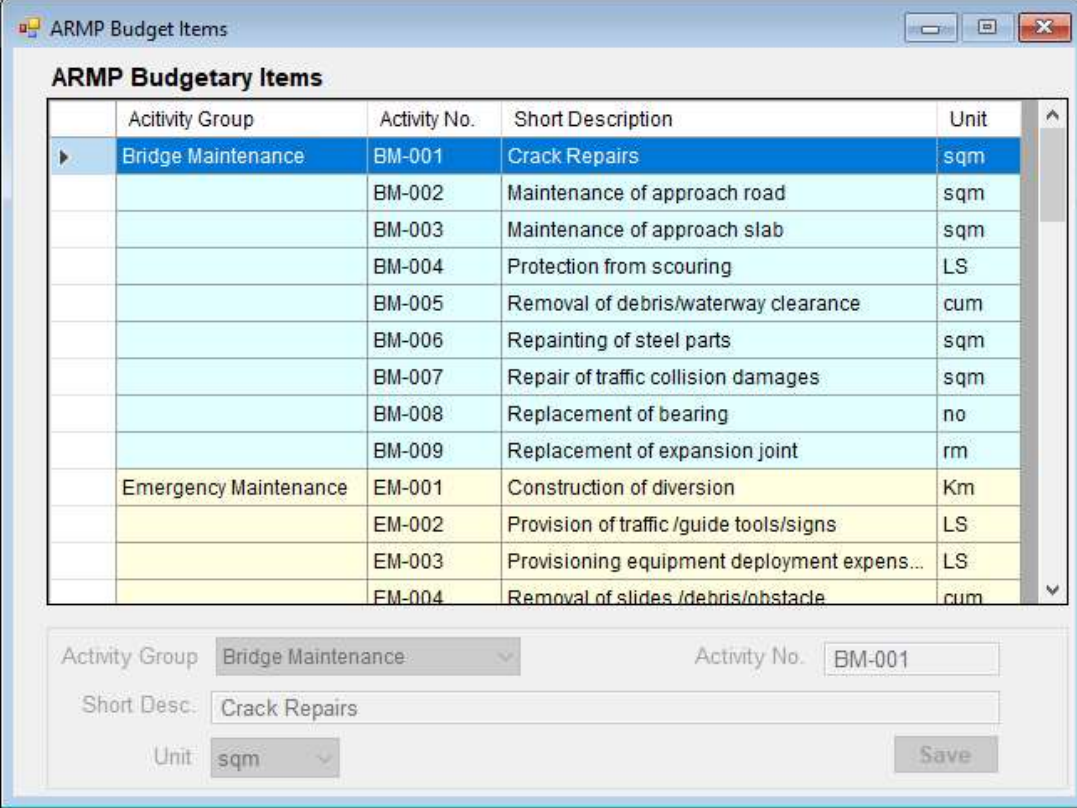
	Item Code	Item	Unit	Rate	Rate Source
▶	E001	Air compressor	hr	1,459.00	DoR Rate
	E002	Hot mix plant	hr	14,122.00	DoR Rate
	E003	Tipper	hr	1,454.00	DoR Rate
	E004	Smooth wheeled roller	hr	1,608.00	DoR Rate
	E005	Vibratory roller	hr	2,413.00	DoR Rate

Save

Users should enter the rate for equipment prescribed by DoR. The rate should include equipment purchasing cost, fuel cost, maintenance, maintenance crew and operation cost.

4.3 ARMP Budgetary Items (Admin Only)

These are standard items defined for entire ARMP. Editing of items are only available for the admin users.



The screenshot shows a window titled "ARMP Budget Items". Inside, there is a table with the following columns: Activity Group, Activity No., Short Description, and Unit. The table lists items under two groups: Bridge Maintenance and Emergency Maintenance. Below the table, there is a form with fields for Activity Group, Activity No., Short Desc., and Unit, along with a Save button.

Activity Group	Activity No.	Short Description	Unit
Bridge Maintenance	BM-001	Crack Repairs	sqm
	BM-002	Maintenance of approach road	sqm
	BM-003	Maintenance of approach slab	sqm
	BM-004	Protection from scouring	LS
	BM-005	Removal of debris/waterway clearance	cum
	BM-006	Repainting of steel parts	sqm
	BM-007	Repair of traffic collision damages	sqm
	BM-008	Replacement of bearing	no
	BM-009	Replacement of expansion joint	rm
Emergency Maintenance	EM-001	Construction of diversion	Km
	EM-002	Provision of traffic /guide tools/signs	LS
	EM-003	Provisioning equipment deployment expans...	LS
	EM-004	Removal of slides /debris/obstacle	cum

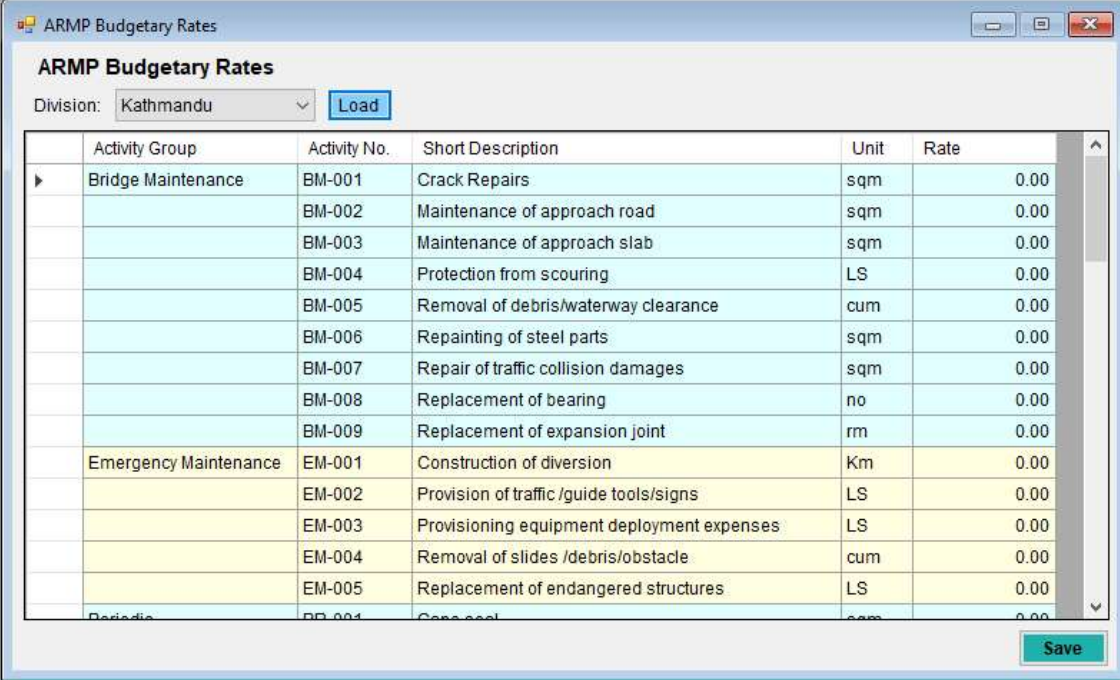
Activity Group: Bridge Maintenance Activity No.: BM-001

Short Desc.: Crack Repairs

Unit: sqm Save

4.4 ARMP Budgetary Rates

The rates for standard items defined for entire ARMP can be entered using this tool. Each division should provide the rates applicable to the entire division.

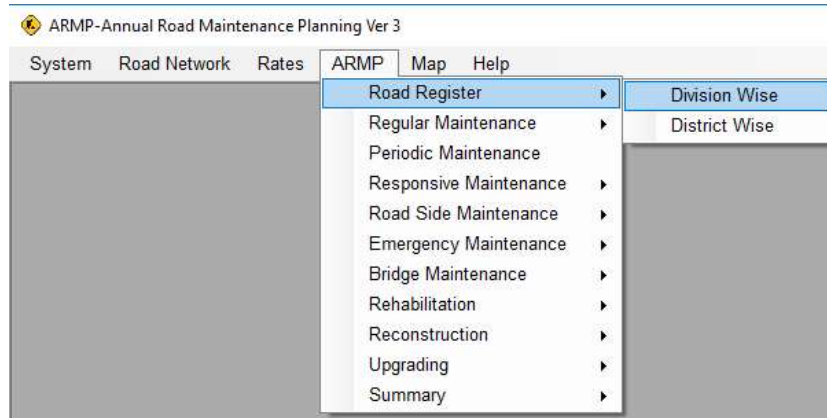


The screenshot shows the 'ARMP Budgetary Rates' window. At the top, there is a title bar with the text 'ARMP Budgetary Rates'. Below the title bar, there is a 'Division:' dropdown menu set to 'Kathmandu' and a 'Load' button. The main area contains a table with the following columns: Activity Group, Activity No., Short Description, Unit, and Rate. The table is divided into three sections: Bridge Maintenance (light blue), Emergency Maintenance (yellow), and Periodic Maintenance (light green). The 'Rate' column for all items is set to 0.00. A 'Save' button is located at the bottom right of the window.

Activity Group	Activity No.	Short Description	Unit	Rate
Bridge Maintenance	BM-001	Crack Repairs	sqm	0.00
	BM-002	Maintenance of approach road	sqm	0.00
	BM-003	Maintenance of approach slab	sqm	0.00
	BM-004	Protection from scouring	LS	0.00
	BM-005	Removal of debris/waterway clearance	cum	0.00
	BM-006	Repainting of steel parts	sqm	0.00
	BM-007	Repair of traffic collision damages	sqm	0.00
	BM-008	Replacement of bearing	no	0.00
	BM-009	Replacement of expansion joint	rm	0.00
Emergency Maintenance	EM-001	Construction of diversion	Km	0.00
	EM-002	Provision of traffic /guide tools/signs	LS	0.00
	EM-003	Provisioning equipment deployment expenses	LS	0.00
	EM-004	Removal of slides /debris/obstacle	cum	0.00
	EM-005	Replacement of endangered structures	LS	0.00
Periodic Maintenance	PP-001	General	sqm	0.00

5. ARMP MENU

5.1 Road Register



5.1.1 Division wise Road Register

Provides the road register by division. It also includes the sub-links and the activities e.g. last resurfacing, pavement status and project notes for each of the links and sub-links.

Road Register

Division: Biratnagar

Year : 2020

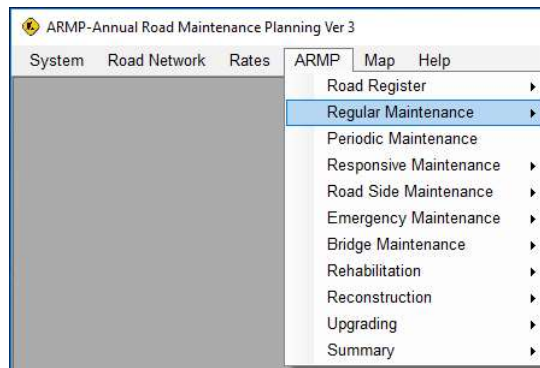
Road Ref No	Link Code	Link Name	Link From	Link To	Link Length	BT	GR	ER	UC	PL	Terrain	Link Section	Section From	Section To	Se Le
NH01	NH01-006	Mawa-Harichamod	54.75	80.86	26.11	26.11	0.00	0.00	0.00	0.00	P	NH01-006-A	54.75	63.45	
												NH01-006-B	63.45	70.45	
												NH01-006-C	70.45	80.86	
NH01	NH01-007	Harichamod-Budhi Khola	80.86	91.05	10.19	10.19	0.00	0.00	0.00	0.00	P	NH01-007-A	80.86	81.00	
												NH01-007-B	81.00	90.00	
												NH01-007-C	90.00	91.05	
NH01	NH01-008	Budhi Khola-Itahari	91.05	92.40	1.35	1.35	0.00	0.00	0.00	0.00	P	NH01-008-A	91.05	92.40	
NH01	NH01-009	Itahari-Sakhawa Gachhi	92.40	107.64	15.24	15.24	0.00	0.00	0.00	0.00	P	NH01-009-A	101.64	107.64	
												NH01-009-B	92.40	101.64	
NH01	NH01-010	Sakhawa Gachhi-Sunsari bridge	107.64	111.05	3.41	3.41	0.00	0.00	0.00	0.00	P	NH01-010-A	107.64	111.05	
NH01	NH01-011	Sunsari bridge-Koshi Barrage	111.05	134.93	23.88	23.88	0.00	0.00	0.00	0.00	P	NH01-011-A	111.05	130.00	
												NH01-011-B	130.00	134.93	
NH01	NH01-012	Koshi Barrage-Bharadaha	134.93	140.95	6.02	6.02	0.00	0.00	0.00	0.00	P	NH01-012-A	134.93	140.95	
NH05	NH05-003	Ratuwa Nadi - Rangeli	47.97	66.38	18.41	18.41	0.00	0.00	0.00	0.00	P	NH05-003-A	47.97	66.38	
NH05	NH05-004	Rangeli - Biratnagar	66.38	89.62	23.24	23.24	0.00	0.00	0.00	0.00	P	NH05-004-A	66.38	67.23	
												NH05-004-B	67.23	77.05	
												NH05-004-C	77.05	81.90	
												NH05-004-D	81.90	83.86	
												NH05-004-E	83.86	85.79	

5.1.2 District wise Road Register

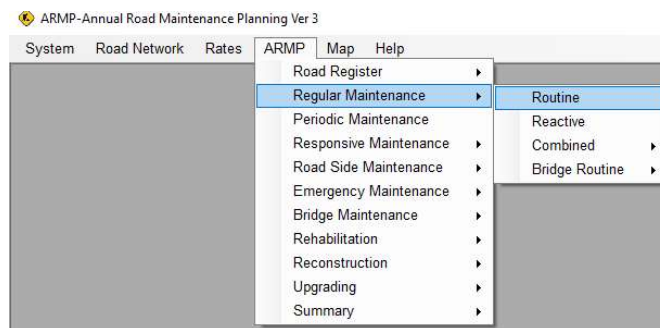
Provides the road register by district. It also includes the sub-links and the activities e.g. last resurfacing, pavement status and project notes for each of the links and sub-links.

Road Register (District Wise)																
District		Achham														
		Load														
		Year : 2015														
	Road Ref No	Link Code	Link Name	Link From	Link To	Link Length	BT	GR	ER	UC	PL	Terrain	Link Section	Section From	Section To	
▶	F051	F05102	Chaukhutte Bajar-Sanfebagar	41.00	67.00	26.00	26.00	0.00	0.00	0.00	0.00	H	F05102-A	41.00	51.00	
													F05102-B	51.00	67.00	
	F146	F14601	Sanphebagar-Rakse	0.00	14.00	14.00	14.00	0.00	0.00	0.00	0.00	H	F14601-A	0.00	14.00	
	F195	F19504	Selli-Seti R(District Border)-Saphe Ba...	100.00	123.00	23.00	10.00	0.00	13.00	0.00	0.00	P	F19504-A	100.00	110.00	
													F19504-B	110.00	123.00	
	H18	H1824	Rakam(Belkhet)-Mangalsen (Midhill)	945.00	993.00	48.00	0.00	0.00	48.00	0.00	0.00	H	H1824-A	945.00	993.00	
	H18	H1825	Mangalsen-Safebagar (Midhill)	993.00	1,032.00	39.00	35.00	0.00	4.00	0.00	0.00	H	H1825-A	993.00	997.00	
													H1825-B	997.00	1,032.00	
	Total					150.00	85.00	0.00	65.00	0.00	0.00					

5.2 Regular Maintenance



5.2.1 Routine



Routine Screen

Routine Maintenance

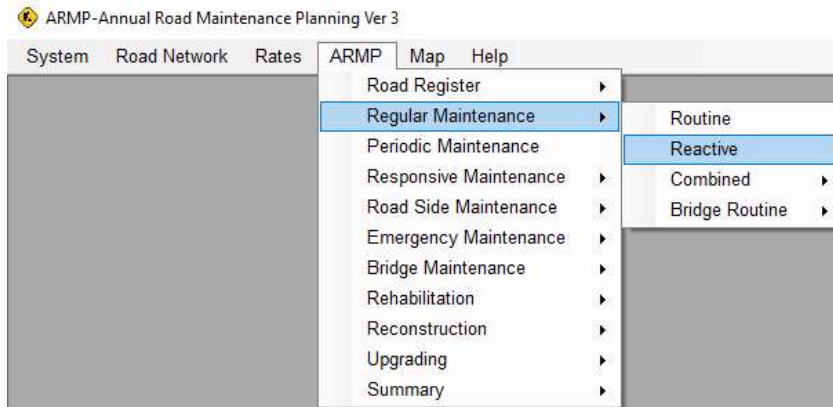
Division: Year: 2019

Road Ref No	Link Code	Link Name	Link From	Link To	Link Length	Link Section	Section From (Km)	Section To (Km)	Section Length (Km)	Terrain	Pavement Type	Pavement Width (m)	No of Lanes	Lane factor
F042	F04207	Myagdi district border-Beni	80.00	90.00	10.00	F04207-A	80.00	90.00	10.00	H	GR	3.60	1	1.00
F042	F04208	Beni-Pairothapla	90.00	124.00	34.00	F04208-A	90.00	124.00	34.00	H	ER	4.50	1	1.00
F042	F04209	Pairothapla-Jomsong	124.00	170.00	46.00	F04209-A	124.00	170.00	46.00	H	ER	4.50	1	1.00
F042	F04210	Jomsong-Ghoktang	170.00	292.00	122.00	F04210-A	170.00	292.00	122.00	H	ER	4.50	1	1.00
F131	F13103	Selbeni-Gupteswor(Kaligandaki-Kus...	30.00	85.00	55.00	F13103-A	30.00	40.00	10.00	H	STGB	4.00	1	1.00
						F13103-B	40.00	85.00	45.00	H	ER	4.50	1	1.00
F133	F13301	Maldhunga-Beni	0.00	13.00	13.00	F13301-A	0.00	13.00	13.00	H	STGB	4.70	1	1.00
F166	F16601	Kagbeni-Mukthinath	0.00	26.00	26.00	F16601-A	0.00	26.00	26.00	H	ER	3.50	1	1.00
F167	F16706	Paklung Khola-Maldhunga (Kaligandak...	207.00	245.00	38.00	F16706-B	211.00	245.00	34.00	H	ER	4.50	1	1.00
F194	F19406	Darling(District Border)-Dhara(MH Ju...	126.50	151.50	25.00	F19406-A	126.50	151.50	25.00	H	ER	4.50	1	1.00
F194	F19407	Dhara(MH Junction)-Dhorpatani(Uttar ...	151.50	178.50	27.00	F19407-A	151.50	178.50	27.00	H	ER	4.50	1	1.00
H18	H1838	Baglung-Ghoda Badh-Hatiya (Midhill)	797.00	842.00	45.00	H1838-A	797.00	798.00	1.00	H	STGB	3.75	1	1.00
						H1838-B	798.00	817.00	19.00	H	STGB	3.75	1	1.00
						H1838-C	817.00	830.00	13.00	H	GR	3.75	1	1.00
						H1838-D	830.00	842.00	12.00	H	ER	3.75	1	1.00

- Select the Division and press 'Load'
- A decision has to be made to include or exclude the link from the routine maintenance based on the on-going project information. Reason for the excluding should be mentioned. The roads with PL or UC status are shown in red color and are automatically excluded.
- The routine maintenance of the earthen road is estimated at NRs 20,000 per km which also includes the recurrent maintenance. This is automatically calculated.
- After making changes, press save to record the changes.

- e) Right click on the grid to export the data to Excel.

5.2.2 Reactive



Reactive Maintenance Screen

Reactive Maintenance

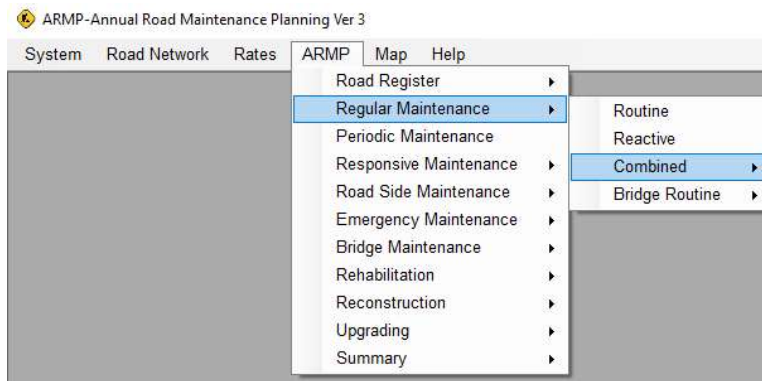
Division: Baglung

Reactive Maintenance for Bituminous & Gravel Pavement Year: 2019

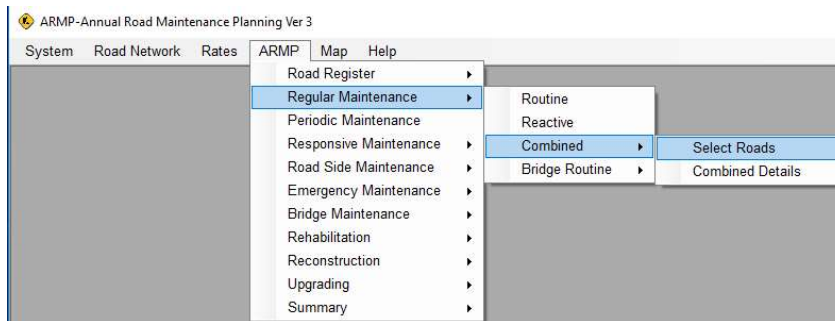
Road Ref No	Link Code	Link Name	Link From	Link To	Link Length	Link Section	Section From (Km)	Section To (Km)	Section Length (Km)	RM Length (Km)	Last Resurface Year	Resurface Year Count	Pavement Type	Pave Width
F042	F04207	Myagdi district border-Beni	80.00	90.00	10.00	F04207-A	80.00	90.00	10.00	10.00	9999	1	GR	
F131	F13103	Setibeni-Gupteswor(Kaligandaki-Kus...	30.00	85.00	55.00	F13103-A	30.00	40.00	10.00	10.00	9999	1	STGB	
F133	F13301	Maldhunga-Beni	0.00	13.00	13.00	F13301-A	0.00	13.00	13.00	13.00	2014	5	STGB	
H18	H1838	Baglung-Ghoda Badh-Hatiya (Midhill)	797.00	842.00	45.00	H1838-A	797.00	798.00	1.00	1.00	9999	1	STGB	
						H1838-B	798.00	817.00	19.00	19.00	9999	1	STGB	
						H1838-C	817.00	830.00	13.00	13.00	9999	1	GR	
H18	H1839	Hatiya-Kharbang (Midhill)	842.00	863.00	21.00	H1839-A	842.00	863.00	21.00	21.00	2017	2	STGB	
H18	H1840	Kharbang-Buribang (Midhill)	863.00	885.00	22.00	H1840-A	863.00	885.00	22.00	22.00	2018	1	STGB	
H18	H1841	Buribang-Devasthan (Midhill)	885.00	890.00	5.00	H1841-A	885.00	890.00	5.00	5.00	9999	1	STGB	
H18	H1842	Devasthan-Nissi (Midhill)	890.00	905.00	15.00	H1842-A	890.00	905.00	15.00	15.00	9999	1	STGB	
H18	H1843	Nisi-Parthina(District Border) (Midhill)	905.00	927.00	22.00	H1843-A	905.00	927.00	22.00	22.00	9999	1	STGB	
		Division Total								151.00	151.00			

- Select the Division and press 'Load'.
- Users are required to enter the length in "RM Length (Km)" column, % of potholes in "Adopted Pothole Area (%)" column, and % of potholes in shoulder in "Adopted Shoulder Area (%)" column.
- After making changes, click Calculate Tab and to save changes record, click Save tab.
- Right click on the grid to export the data to Excel.

5.2.3 Combined



Select Roads



Select Road For Combined Maintenance

Combined Maintenance: Select Road

Division:

SRN Links	Road	Road Name	From	To	Length
▶	F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11
	F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71
	F04206	Baglung-Myagdi district border	72.58	80.00	7.42
	F04207	Myagdi district border-Beni	80.00	90.00	10.00
	F04208	Beni-Pairothapla	90.00	124.00	34.00
	F04209	Pairothapla-Jomsong	124.00	170.00	46.00
	F04210	Jomsong-Ghoktang	170.00	292.00	122.00
	F13103	Setiben-Gupteswor(Kaligandaki-...	30.00	85.00	55.00
	F13301	Maldhunga-Beni	0.00	13.00	13.00
	F16601	Kagbeni-Muktinath	0.00	26.00	26.00
	F16706	Palung Khola-Maldhunga (Kaliga...	207.00	245.00	38.00

Selected Roads for Combined Maintenance	Road	Road Name	From	To	Length
▶	F04204	Sandh bridge-Kaligandaki br...	43.76	67.87	24.11
	F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71
	F04206	Baglung-Myagdi district border	72.58	80.00	7.42

- Select roads for combined maintenance i.e regular and reactive combined and carried out by the division office'.
- Provide details for each road similar to the regular and the reactive maintenance

Combined Details

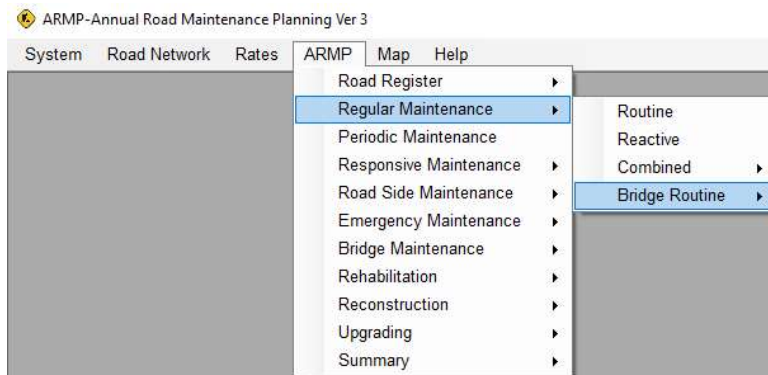
Combined Maintenance for Bituminous Pavement

Year: 2019

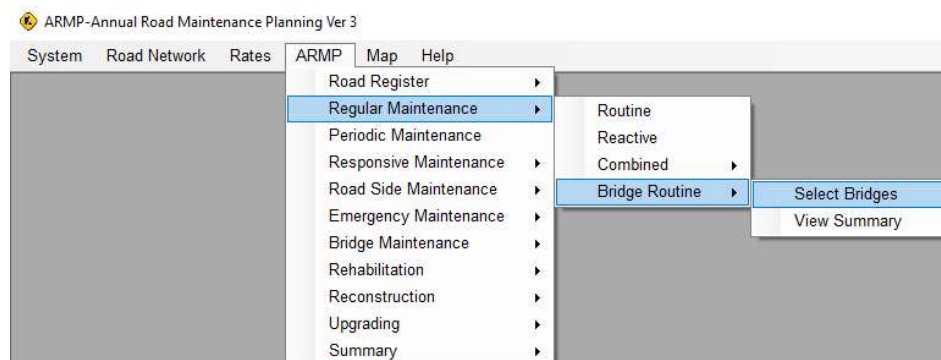
Road Ref No	Link Code	Link Name	Link From	Link To	Link Length	Link Section	Section From (Km)	Section To (Km)	Section Length (Km)	R/L Length (Km)	Last Resurface Year	Resurface Year Count	Pavement Type	P W
F042	F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11	F04204-A	43.76	59.58	15.82	15.82	2017	2	STGB	
						F04204-B	59.58	67.87	8.29	8.29	2016	3	STGB	
F042	F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71	F04205-A	67.87	72.58	4.71	4.71	2016	3	STGB	
F042	F04206	Baglung-Myagdi district border	72.58	80.00	7.42	F04206-A	72.58	74.21	1.63	1.63	2016	3	STGB	
						F04206-B	74.21	77.58	3.37	3.37	2014	5	STGB	
						F04206-C	77.58	80.00	2.42	2.42	2015	4	STGB	
Division Total									36.24	36.24				

Calculate Save

5.2.4 Bridge Routine



Select Bridge



Prepare Bridge Routine Details

Select the bridge to include in the routine maintenance or not. Reason for exclusion also should be mentioned if the bridge is not included for routine maintenance.

Bridge Routine Details

Division: Baglung Load

	Bridge ID	Bridge/River Name	Road Ref No	Road Name	Chainage	Total Span	Bridge Type	Included RM Span	Include in Routine Maintenance	Reason for Excluding
▶	48-F042-0...	Tangsara Khola	NA		142.77	10	RCC T-Be...	10.00	<input checked="" type="checkbox"/>	
	48-F042-0...	Lange Khola	NA		148.43	14.8	RCC T-Be...	14.80	<input checked="" type="checkbox"/>	
	48-F042-0...	Syang Khola	NA		166.85	115	RCC T-Be...	115.00	<input checked="" type="checkbox"/>	
	48-F042-0...	Kaligandaki Khola	NA		177.177	47	RCC T-Be...	47.00	<input checked="" type="checkbox"/>	
	48-F042-0...	Lupra Khola	NA		176.306	51	RCC T-Be...	51.00	<input checked="" type="checkbox"/>	
	48-F042-0...	Kaligandaki Khola	NA		199.37	74	RCC T-Be...	74.00	<input checked="" type="checkbox"/>	
	49-F042-0...	Dhodino khola	NA		80.033	24	RCC T-Be...	24.00	<input checked="" type="checkbox"/>	
	49-F042-0...	Myagdi khola	NA		89.49	60.6	Steel Truss	60.60	<input checked="" type="checkbox"/>	
	49-F042-0...	gharamadi khola	NA		107.434	6	RCC Slab	6.00	<input checked="" type="checkbox"/>	
	49-F042-0...	Duwari Khola	NA		117.43	9	RCC Slab	9.00	<input checked="" type="checkbox"/>	
	49-F042-0...	Rupse chango Khola	NA		121.319	8	RCC T-Be...	8.00	<input checked="" type="checkbox"/>	
	49-F133-0...	Kaligandaki Khola	NA		12.3	76.4	RCC T-Be...	76.40	<input checked="" type="checkbox"/>	
	50-F132-0...	Daram khola	NA		56.915	36.5	Steel Plat...	36.50	<input checked="" type="checkbox"/>	
	50-F167-0...	Galuwa/Dundure Khola	NA		240.855	7.4	RCC Slab	7.40	<input checked="" type="checkbox"/>	
	50-F167-0...	Katthe Khola	NA		244.367	25.4	RCC T-Be...	25.40	<input checked="" type="checkbox"/>	
	50-F167-0...	Kaligandaki Khola	NA		244.367	25.4	RCC T-Be...	25.40	<input checked="" type="checkbox"/>	
Total Span Included in Routine Maintenance					1,394.85 m.	Total Routine Maintenance Cost (NRs '000)		918.61	Save	

View Routine Summary

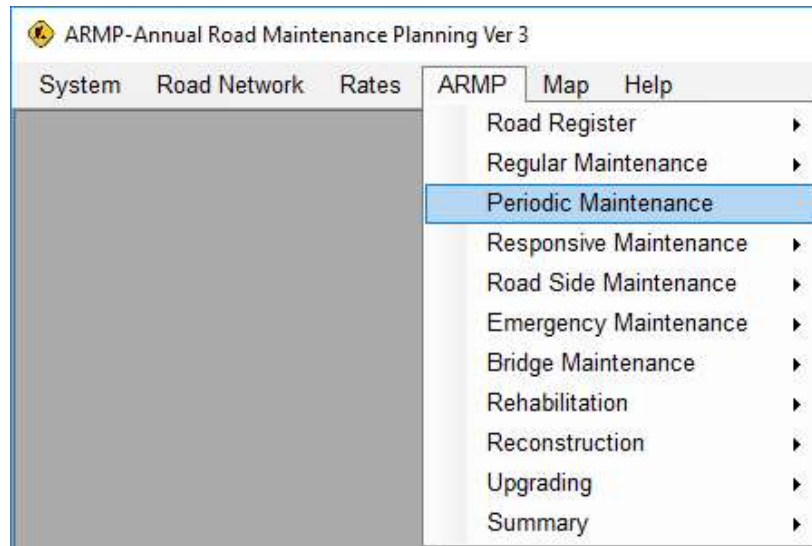
Bridge Routine Maintenance Cost

Bridge Routine Maintenance Summary

Division: Baglung Load

	Total Bridge Span (m)	Labour Quantity (md)	Labour Rate (NRs/md)	Direct Cost (NRs)	23% Fixed Overhead (NRs)	Annual Benefit (NRs)	Total Cost (NRs '000)
▶	1,772.15	1,617.09	586.77	948,859.90	218,237.78	0.00	1,167.10

5.3 Periodic Maintenance



Periodic maintenance requirement (Yes/No) is computed automatically based on the last year of resurface, traffic, SDI values. The current method is the one which is in practice in the DoR. The ARMP is already updated with the recent data on the pavement condition, traffic data and last re-surface year and also updated with the 2018 periodic plan. Decision can be made to include the road under periodic maintenance even the calculation shows "No" based on observation by the division. Right click on the grid to export the data to Excel

Periodic Maintenance Screen

Periodic Maintenance

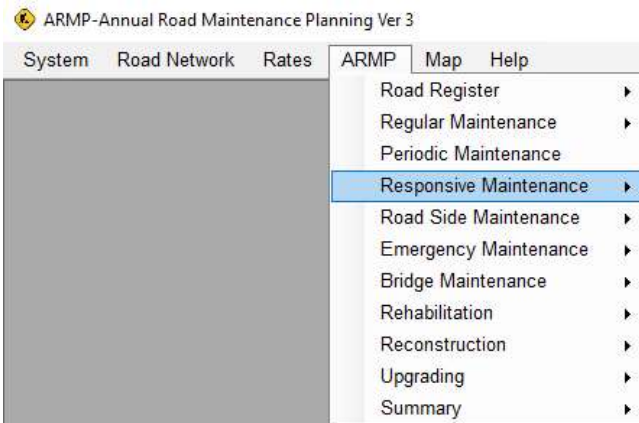
Division: Baglung

Periodic Maintenance Worksheet

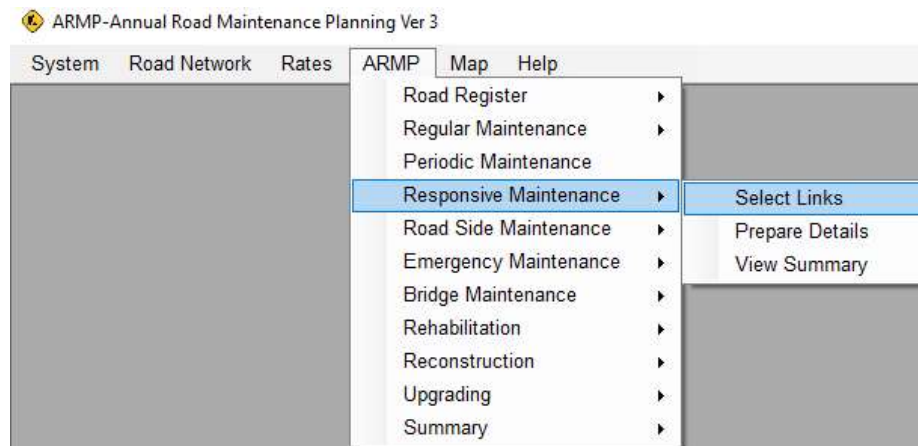
Link Code	Link Name	From (Km)	To (Km)	Length (Km)	Pavement Type	Section From (Km)	Section To (Km)	Section Length (Km)	Pavement Width (m)	Pavement Area (sqm)	Terrain	Traffic Volume Group	Year of Last surfacing	Age of surfacing (Year)	Road Condition	Maintenance cycle (Years)	ACF-Age Correction Factor	Time rease year
F04204	Sandh bridge-Kaligandaki br...	43.76	59.58	15.82	STGB	0.00	0.00	0.00	5.00	0.00	H	Moderate	2017	2	Poor	6	-2	
		59.58	67.87	8.29	STGB	0.00	0.00	0.00	5.00	0.00	H	Moderate	2016	3	Poor	6	-2	
F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71	STGB	0.00	0.00	0.00	5.00	0.00	H	Moderate	2016	3	Fair	6	0	
F04206	Baglung-Myagdi district border	72.58	74.21	1.63	STGB	0.00	0.00	0.00	5.00	0.00	H	Moderate	2016	3	Fair	6	0	
		74.21	77.58	3.37	STGB	0.00	0.00	0.00	5.00	0.00	H	Moderate	2014	5	Fair	6	0	
		77.58	80.00	2.42	STGB	77.58	80.00	2.42	5.00	12100.00	H	Moderate	2015	4	Poor	6	-2	
F13103	Setibeni-Gupteswor(Kaligan...	30.00	40.00	10.00	STGB	0.00	0.00	0.00	4.00	0.00	H	Low	9999	0	Poor	6	-2	
F13301	Maldhunga-Beni	0.00	13.00	13.00	STGB	0.00	13.00	13.00	4.70	61100.00	H	Low	2014	5	Poor	6	-2	
H1838	Baglung-Ghoda Badh-Haty...	797.00	798.00	1.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	9999	0	Poor	6	-2	
		798.00	817.00	19.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	9999	0	Poor	6	-2	
H1839	Hatiya-Kharbang (Midhill)	842.00	863.00	21.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	2017	2	Good	6	2	
H1840	Kharbang-Burtibang (Midhill)	863.00	885.00	22.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	2018	1	Good	6	2	
H1841	Burtibang-Devasthan (Midhill)	885.00	890.00	5.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	9999	0	Poor	6	-2	
H1842	Devasthan-Nasi (Midhill)	890.00	905.00	15.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	9999	0	Poor	6	-2	
H1843	Nasi-Parthahna(District Borda...	905.00	927.00	22.00	STGB	0.00	0.00	0.00	3.75	0.00	H	Low	9999	0	Poor	6	-2	
Total								15.42		73200.00								

Calculate

5.4 Responsive Maintenance



5.4.1 Select Links



Links requiring responsive maintenance should be selected using this tool. The work description should be provided and should not be repeated for the same link. It is better to mention responsive maintenance e.g. "Investigate & reconstruct failed section" etc. rather than putting generic description. The length of the section should also be provided.

Responsive Road Select Screen

Responsive Road Select

Responsive Maintenance: Select Road

Division:

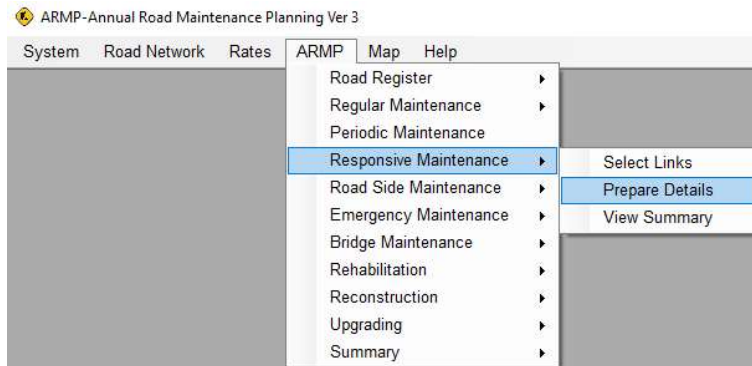
SRN Links						Responsive Maintenance Roads					
Road Code	Road Name	From	To	Length	Pav Stat	Road Code	Road Name	Job Name	From	To	Length
F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11		F04204	Sandh bridge-Kaligandaki br...	test	45.00	60.00	15.00
F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71							
F04206	Baglung-Myagdi district border	72.58	80.00	7.42							
F04207	Myagdi district border-Beni	80.00	90.00	10.00							
F04208	Beni-Pairothapla	90.00	124.00	34.00							
F04209	Pairothapla-Jomsong	124.00	170.00	46.00							
F04210	Jomsong-Ghoktang	170.00	292.00	122.00							
F13103	Setibeni-Gupteswor(Kaligandaki-...	30.00	85.00	55.00							
F13301	Maldhunga-Beni	0.00	13.00	13.00							
F16601	Kagbeni-Mukdinath	0.00	26.00	26.00							

Road Code: Name of Road:

Work Desc:

Work From: Work To: CH From 43.76 To 67.87

5.4.2 Prepare Details



Under each of the selected link and the work description, details should be prepared. Standard items will be available and quantities should be provided. The total cost is automatically computed. Right click on the grid to export entire details data to Excel

Responsive Maintenance Works: Details

Division:

Link Code/Name:

Name of Job: Work From: To:

Activity No.	Description of Work	Unit	Quantity	Rate	Amount
RS-008	Thin asphalt concrete overlay	sqm	500	1,200.00	600,000.00

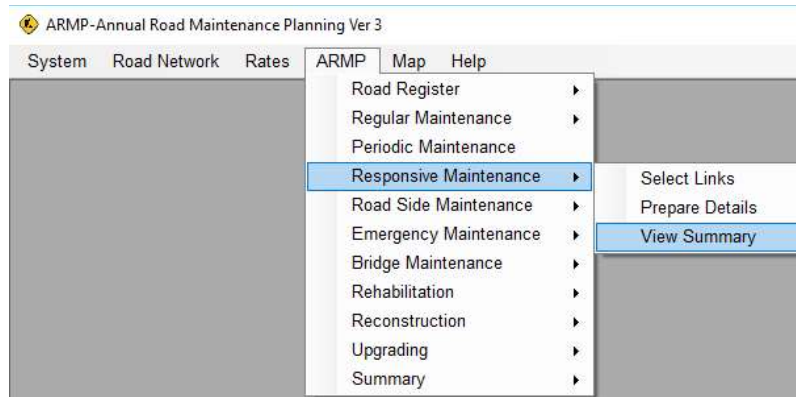
Activity Group: Activity No:

Work Desc:

Unit: Quantity: Rate: Amount:

Sub-Total	600,000.00
Contingencies 5%	30,000.00
Total with Contingencies	630,000.00
VAT 13%	81,900.00
Total (With VAT & Contingencies)	711,900.00

5.4.3 View Summary



Provides the summary of the responsive maintenance works. Right click on the grid to export the data to Excel.

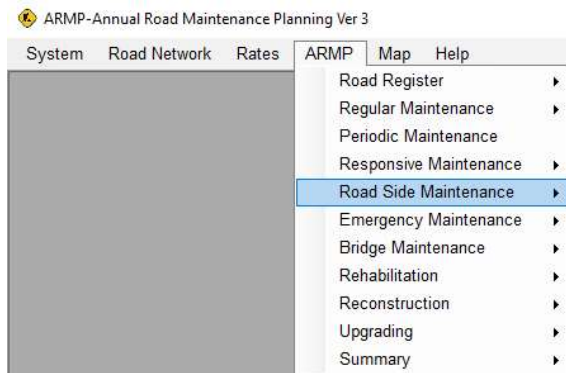
Responsive Maintenance Summary

Summary of Responsive Maintenance

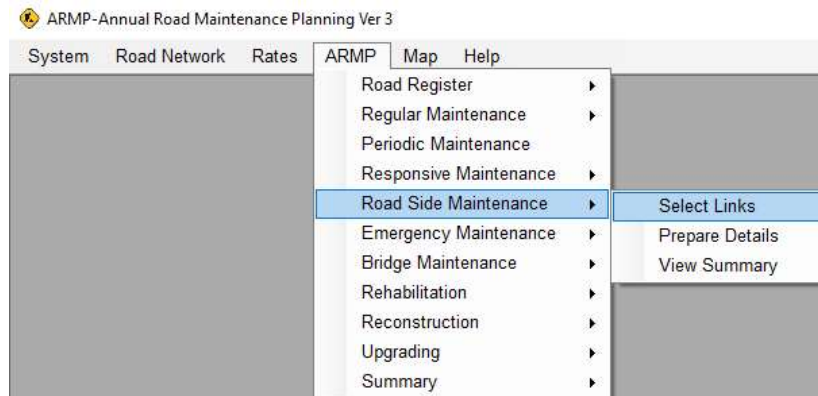
Division:

	Road Code	Road Name	From	To	Length	Work Description	Work From	Work To	Work Length	Total Cost (NRs)
▶	F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11	test	45.00	60.00	15.00	711,900.00
	Total									711,900.00

5.5 Road Side Maintenance



5.5.1 Select Links



Links requiring road side maintenance should be selected using this tool. The work description should be provided and should not be repeated for the same link. It is better to mention road side maintenance e.g. "Revetment wall in ms slope" etc. rather than putting generic description. The length of the section should also be provided.

Road Side Maintenance Select Screen

Road SideMaintenance Road Select

Road Side Maintenance: Select Road

Division: Baglung Load

SRN Links	Road Code	Road Name	From	To	Length	Pav Stat
	F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11	
	F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71	
	F04206	Baglung-Myagdi district border	72.58	80.00	7.42	
	F04207	Myagdi district border-Beni	80.00	90.00	10.00	
	F04208	Beni-Pairothapla	90.00	124.00	34.00	
	F04209	Pairothapla-Jomsong	124.00	170.00	46.00	
	F04210	Jomsong-Ghoktang	170.00	292.00	122.00	
	F13103	Settbeni-Gupteswor(Kaligandaki-...	30.00	85.00	55.00	
	F13301	Maldhunga-Beni	0.00	13.00	13.00	
	F16601	Kagbeni-Mukhtinath	0.00	26.00	26.00	

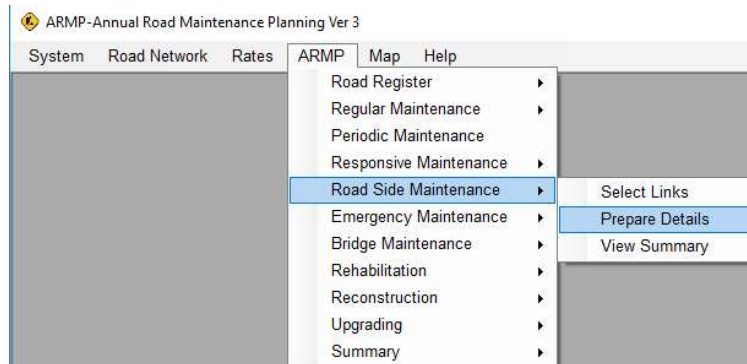
Road Side Maintenance Roads	Road Code	Road Name	Job Name	From	To	Length
	F04204	Sandh bridge-Kaligandaki br...	Test	44.00	67.00	23.00

Road Code: F04205 Name of Road: Kaligandaki bridge-Baglung

Work Desc: Revetment wall in ms slope

Work From: 65 Work To: 70 CH From 67.87 To 72.58 Add New Delete Save

5.5.2 Prepare Details



Under each of the selected link and the work description, details should be prepared. Standard items will be available and quantities should be provided. The total cost is automatically computed. Right click on the grid to export entire details data to Excel

Road Side Maintenance Works: Details

Division: Baglung Load

Link Code/Name: F04204 : Sandh bridge-Kaligandaki bridge

Name of Job: Test

Work From: 44 To: 67

Activity No.	Description of Work	Unit	Quantity	Rate	Amount
RM-001	Bio Engineering Works	sqm	5	500.00	2,500.00

Activity Group: Road Side Activity No: RM-001:Bio Engineering Works

Work Desc: Bio Engineering Works

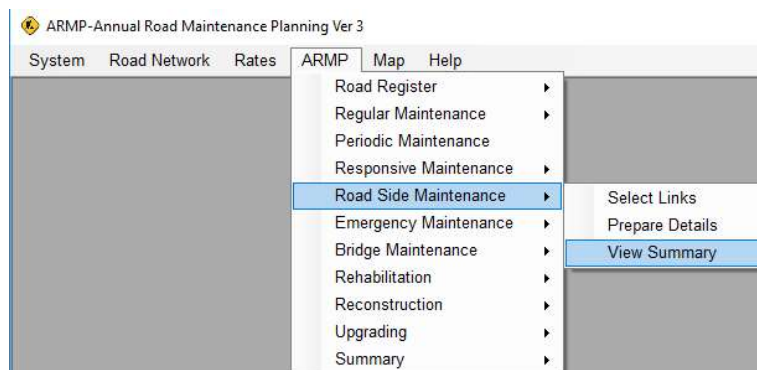
Unit: sqm Quantity: Rate: 500 Amount: 0.00

Add New Delete Save

Summary:

Sub-Total	2,500.00
Contingencies 5%	125.00
Total with Contingencies	2,625.00
VAT 13%	341.25
Total (With VAT & Contingencies)	2,966.25

5.5.3 View Summary



Provides the summary of the road side maintenance works. Right click on the grid to export the data to Excel.

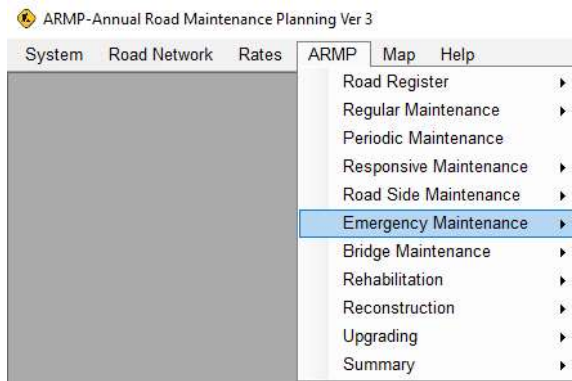
Road Side Maintenance Summary

Summary of Road Side Maintenance

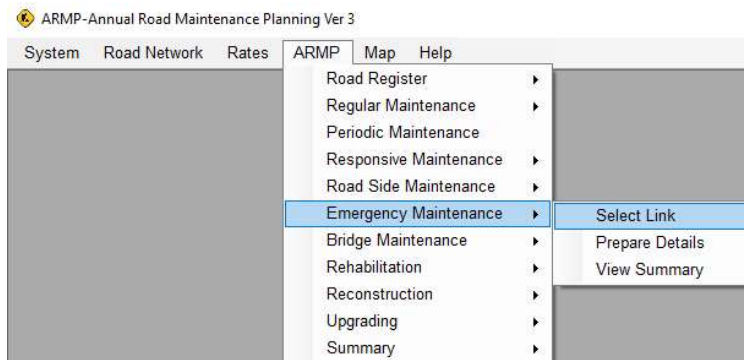
Division:

	Road Code	Road Name	From	To	Length	Work Description	Work From	Work To	Work Length	Total Cost (NRs)
▶	F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11	Test	44.00	67.00	23.00	2,966.25
	Total									2,966.25

5.6 Emergency Maintenance



5.6.1 Select Links



Emergency Maintenance Road Select

Emergency Maintenance: Select Road

Division: Baglung

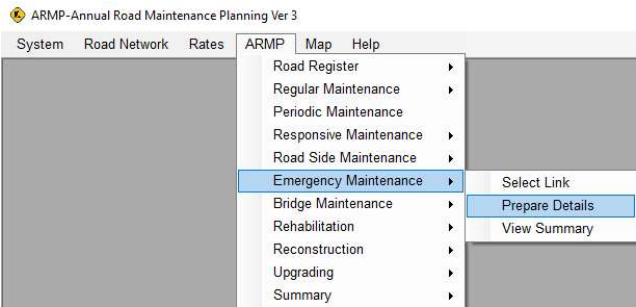
SRN Links						Roads under Emergency Maintenance					
Road Code	Road Name	From	To	Length	Pav Stat	Road Code	Road Name	Job Name	From	To	Length
F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11							
F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71							
F04206	Baglung-Myagdi district border	72.58	80.00	7.42							
F04207	Myagdi district border-Beni	80.00	90.00	10.00							
F04208	Beni-Pairothapla	90.00	124.00	34.00							
F04209	Pairothapla-Jomsong	124.00	170.00	46.00							
F04210	Jomsong-Ghoktang	170.00	292.00	122.00							
F13103	Setibeni-Gupteswor(Kaligandaki-...	30.00	85.00	55.00							
F13301	Maldhunga-Beni	0.00	13.00	13.00							
F16601	Kagbeni-Mukthinath	0.00	26.00	26.00							

Road Code Name of Road

Work Desc

Work From Work To

5.6.2 Prepare Details

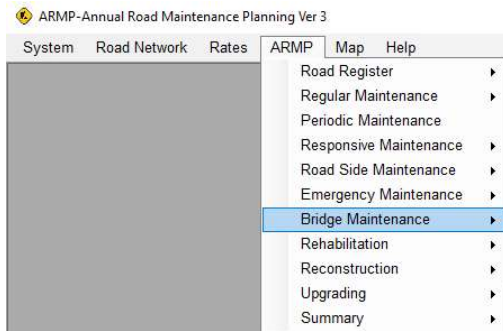


The screenshot displays the 'Emergency Maintenance Works: Details' form. At the top, there is a 'Division' dropdown menu set to 'Baglung' and a 'Load' button. Below this are fields for 'Link Code/Name' and 'Name of Job', each with a dropdown arrow. To the right of these fields are 'Work From' and 'To' input boxes. The main area of the form is a large table with columns: Activity No., Description of Work, Unit, Quantity, Rate, and Amount. Below the table, there are fields for 'Activity Group' (set to 'Emergent'), 'Activity No.' (set to 'EM-001:Construction of diversion'), and 'Work Desc' (set to 'Construction of diversion'). There are also input fields for 'Unit' (set to 'Km'), 'Quantity', 'Rate' (set to '0'), and 'Amount' (set to '0.00'). At the bottom left are 'Add New' and 'Delete' buttons, and at the bottom right is a 'Save' button. On the far right, there is a summary section with fields for 'Sub-Total', 'Contingencies 5%', 'Total with Contingencies', 'VAT 13%', and 'Total (With VAT & Contingencies)'.

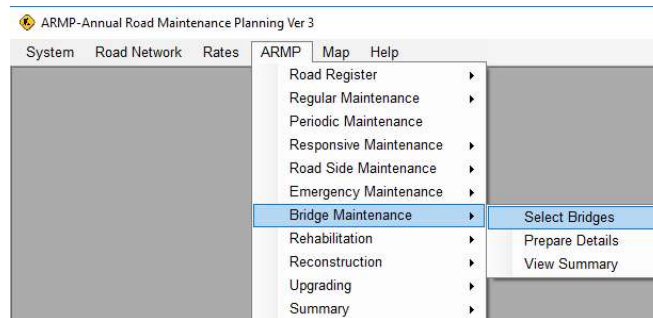
5.6.3 View Summary

The screenshot shows the 'Summary of Emergency Maintenance Works' window. It features a 'Division' dropdown menu set to 'Baglung' and a 'Load' button. A 'Refresh' button is located in the top right corner. The main part of the window is a table with the following columns: Road Code, Road Name, From, To, Length, Work Description, Work From, Work To, Work Length, and Total Cost (NRs). The table contains a single row with the following data: Road Code: Total, Road Name: (empty), From: (empty), To: (empty), Length: (empty), Work Description: (empty), Work From: (empty), Work To: (empty), Work Length: (empty), and Total Cost (NRs): 0.00. A 'Close' button is located at the bottom right of the window.

5.7 Bridge Maintenance

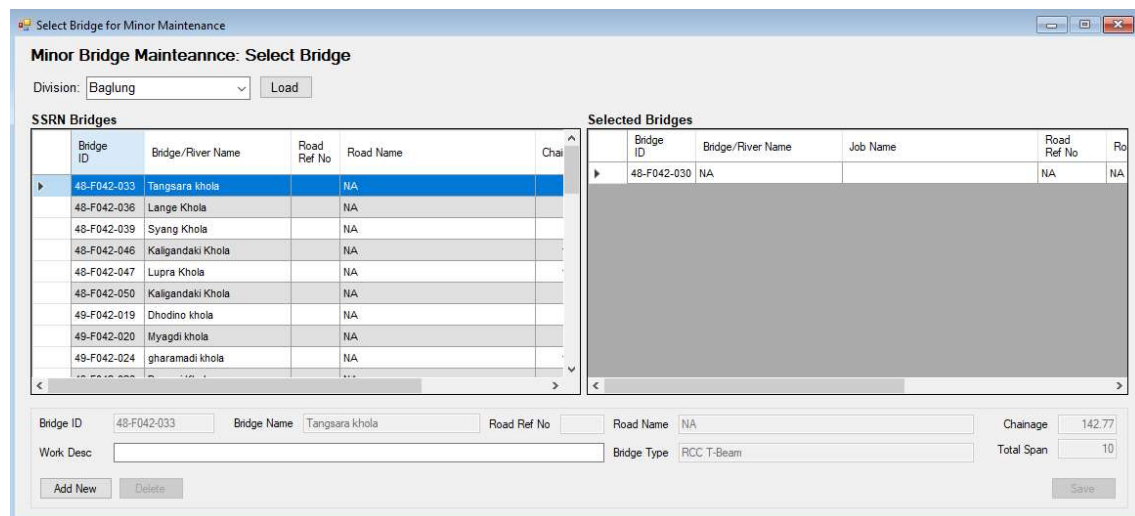


5.7.1 Select Bridge



Select Bridge for Minor Maintenance

Select the bridges for minor maintenance and also provide the work descriptions. If same bridge is used for different works, the work description should be different.



Right click on the bridge can bring bridge details from the condition assessment under the BMS. The view photographs option will take to the detailed photographs available for the bridge and other menus provides access to the bridge condition.

48-F042-033	Tangsara Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
48-F042-035	Boksi Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
48-F042-037	Tucke Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
48-F042-040	Kalgandaki Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
49-F042-019	Dhodino Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
49-F042-020	Myagdi Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
49-F042-021	Galeshor Raganganga Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...
49-F042-022	Beg Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...

Bridge ID: 48-F042-035 Bridge Name: Boksi Khola Road Ref No: F042

Work Desc:

Select Bridge for Minor Maintenance

Minor Bridge Maintenance: Select Bridge

Division: Baglung Load

Bridge ID	Bridge/River Name	Road Ref No	Road Name	Chal
48-F042-030	Lete Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
48-F042-033	Tangsara Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
48-F042-035	Boksi Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
48-F042-037	Tucke Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
48-F042-040	Kalgandaki Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
49-F042-019	Dhodino Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
49-F042-020	Myagdi Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
49-F042-021	Galeshor Raganganga Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	
49-F042-022	Beg Khola	F042	Pokhara - Baglung - Beni - Jomsom - ...	

Bridge ID: 48-F042-035 Work Desc:

Add New Delete

Web View

DETAIL

48-F042-035 Boksi Khola

Photos:

General Information

Foundations

Abutments and Piers

Bearings

Expansion Joints

Super structure

Super structure (Deck Only)

Abutment/Piers:

a1 a2

Bearings:

5.7.2 Prepare Detail

ARMP-Annual Road Maintenance Planning Ver 3

System Road Network Rates ARMP Map Help

Road Register

Regular Maintenance

Periodic Maintenance

Responsive Maintenance

Road Side Maintenance

Emergency Maintenance

Bridge Maintenance

Rehabilitation

Reconstruction

Upgrading

Summary

Select Bridges

Prepare Details

View Summary

Details of Bridge Maintenance

Bridge Maintenance Details

Division: Baglung Load

Bridge Selection

Bridge: NA:48-F042-030 Job Description

Road Name: NA Chainage: 0 Bridge Type: NA Total Span: No of Span:

Activity Group	Activity No.	Description of Work	Unit	Quantity	Rate	Amount
Bridge M	BM-001	Crack Repairs	sqm		200	0.00

Activity Group: Bridge M Activity No: BM-001:Crack Repairs

Work Desc: Crack Repairs

Unit: sqm Quantity: Rate: 200 Amount: 0.00

Add New Delete Save

Sub-Total

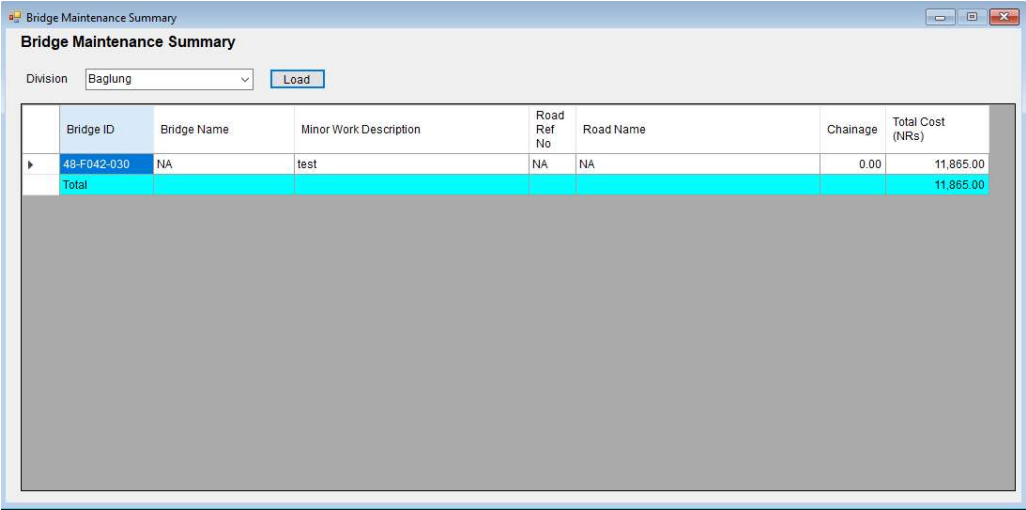
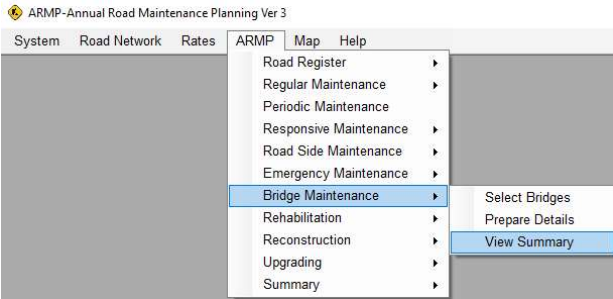
Contingencies 5%

Total with Contingencies

VAT 13%

Grand Total

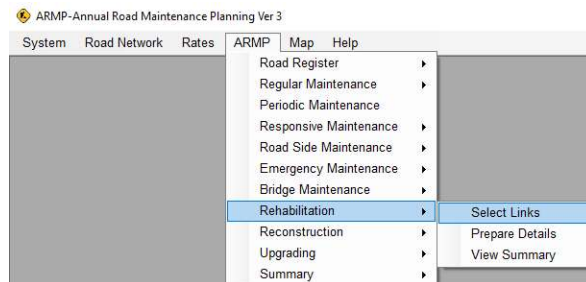
5.7.3 View Summary



5.8 Rehabilitation



5.8.1 Select Links



Links requiring rehabilitation should be selected using this tool. The work description should be provided and should not be repeated for the same link. The length of the section should also be provided.

Select Road for Rehabilitation Works

Road Rehabilitation: Select Road

Division: Baglung Load

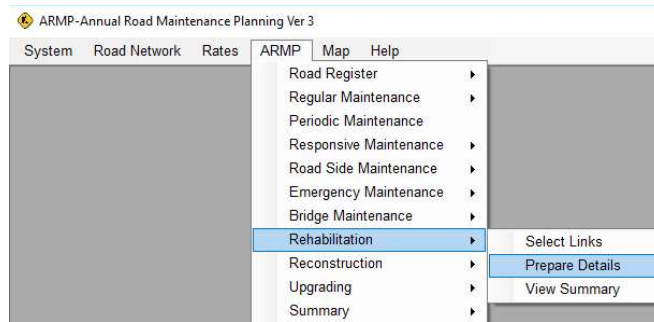
SRN Links						Rehabilitation Roads					
Road Code	Road Name	From	To	Length	Pay Sta	Road Code	Road Name	Job Name	From	To	Length
F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11							
F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71							
F04206	Baglung-Myagdi district border	72.58	80.00	7.42							
F04207	Myagdi district border-Beni	80.00	90.00	10.00							
F04208	Beni-Pairothapla	90.00	124.00	34.00							
F04209	Pairothapla-Jomsong	124.00	170.00	46.00							
F04210	Jomsong-Ghoktang	170.00	292.00	122.00							
F13103	Setibeni-Gupteswor(Kaligandaki-...	30.00	85.00	55.00							
F13301	Maldhunga-Beni	0.00	13.00	13.00							
F16601	Kaqbeni-Mukthinath	0.00	26.00	26.00							

Road Code: F04205 Name of Road: Kaligandaki bridge-Baglung

Work Desc:

Work From: Work To: CH From 67.87 To 72.58 Add New Delete Save

5.8.2 Prepare Details



Under each of the selected link and the work description, details should be prepared. Standard items will be available and quantities should be provided. The total cost is automatically computed. Right click on the grid to export entire details data to Excel

Rehabilitation Works Details

Division:

Link Code/Name:

Name of Job: Work From: To:

Activity No.	Description of Work	Unit	Quantity	Rate	Amount

Activity Group: Activity No.:

Work Desc:

Unit: Quantity: Rate: Amount:

Sub-Total:

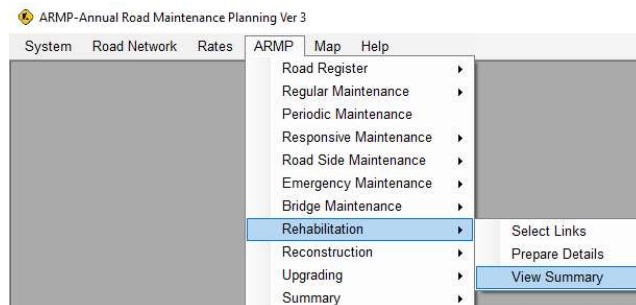
Contingencies 5%:

Total with Contingencies:

VAT 13%:

Total (With VAT & Contingencies):

5.8.3 View Summary



Provides the summary of the rehabilitation works. Right click on the grid to export the data to Excel

Summary of Rehabilitation Works

Division:

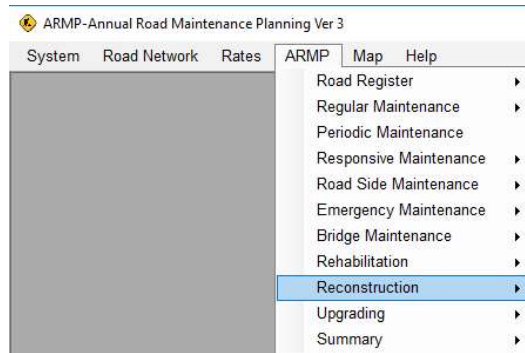
Baglung

Load

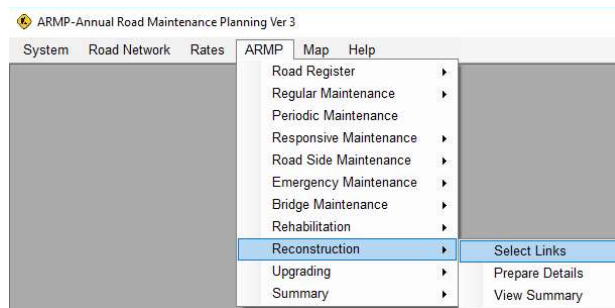
Refresh

	Road Code	Road Name	From	To	Length	Work Description	Work From	Work To	Work Length	Total Cost (NRs)
▶	Total									0.00

5.9 Reconstruction



5.9.1 Select Links



Links requiring reconstruction should be selected using this tool. The work description should be provided and should not be repeated for the same link. The length of the section should also be provided.

Select Road for Reconstruction Works

Road Reconstruction: Select Road

Division:

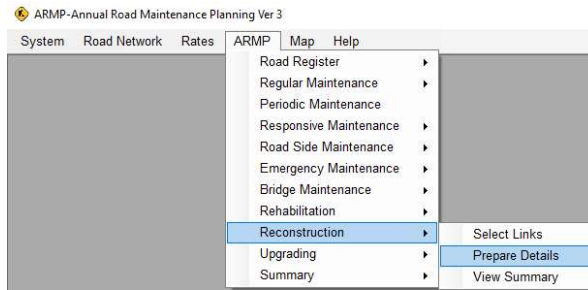
SRN Links						Reconstruction Roads					
Road Code	Road Name	From	To	Length	Pay Sta	Road Code	Road Name	Job Name	From	To	Length
F04204	Sandh bridge-Kaligandaki bridge	43.76	67.87	24.11							
F04205	Kaligandaki bridge-Baglung	67.87	72.58	4.71							
F04206	Baglung-Myagdi district border	72.58	80.00	7.42							
F04207	Myagdi district border-Beni	80.00	90.00	10.00							
F04208	Beni-Pairothapla	90.00	124.00	34.00							
F04209	Pairothapla-Jomsong	124.00	170.00	46.00							
F04210	Jomsong-Ghoktang	170.00	292.00	122.00							
F13103	Setibeni-Gupteswor(Kaligandaki-...	30.00	85.00	55.00							
F13301	Maldhunga-Beni	0.00	13.00	13.00							
F16601	Karbeni-Mukdinath	0.00	26.00	26.00							

Road Code Name of Road

Work Desc

Work From Work To

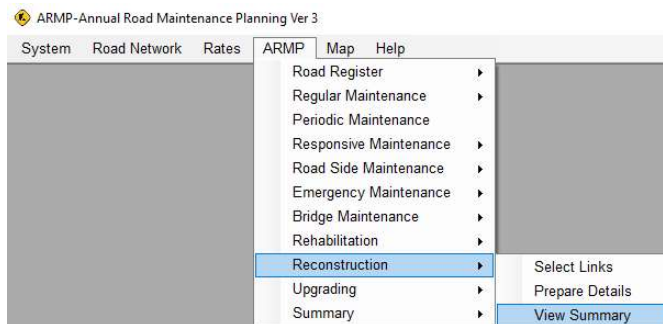
5.9.2 Prepare Details



Under each of the selected link and the work description, details should be prepared. Standard items will be available and quantities should be provided. The total cost is automatically computed. Right click on the grid to export entire details data to Excel

Reconstruction Works Details				
Division	<input type="text" value="Baglung"/>	<input type="button" value="Load"/>		
Link Code/Name	<input type="text"/>			
Name of Job	<input type="text"/>		Work From	To
			<input type="text"/>	<input type="text"/>
Activity No.	Description of Work	Unit	Quantity	Rate
Amount				
Activity Group	Activity No			
<input type="text" value="ARMP F"/>	<input type="text" value="RC-001:Recons-Road Surface/AC"/>			
Work Desc	<input type="text" value="Recons-Road Surface/AC"/>			
Unit	sqm	Quantity	<input type="text" value="0"/>	Rate
		Amount	<input type="text" value="0.00"/>	
<input type="button" value="Add New"/>		<input type="button" value="Delete"/>		
		<input type="button" value="Save"/>		
Sub-Total		<input type="text"/>		
Contingencies 5%		<input type="text"/>		
Total with Contingencies		<input type="text"/>		
VAT 13%		<input type="text"/>		
Total (With VAT & Contingencies)		<input type="text"/>		

5.9.3 View Summary



Provides the summary of the reconstruction works. Right click on the grid to export the data to Excel

Summary of Reconstruction Works

Division

Baglung

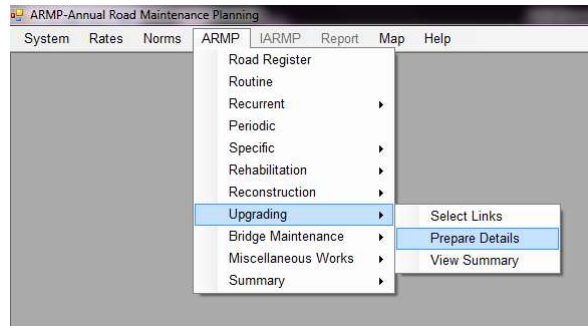
Load

Refresh

	Road Code	Road Name	From	To	Length	Work Description	Work From	Work To	Work Length	Total Cost (NRs)
▶	Total									0.00

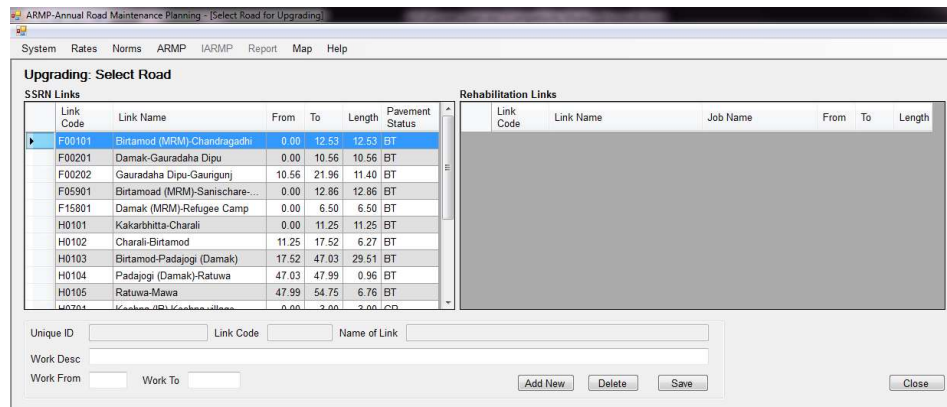
Close

5.10 Upgrading



5.10.1 Select Links

Links requiring upgrading should be selected using this tool. The work description should be provided and should not be repeated for the same link. The length of the section should also be provided.



5.10.2 Prepare Details

Under each of the selected link and the work description, details should be prepared. Standard items will be available and quantities should be provided. The total cost is automatically computed. Right click on the grid to export entire details data to Excel

ARMP-Annual Road Maintenance Planning - [Details of Upgrading]

System Rates Norms ARMP IARMP Report Map Help

Upgrading Works: Abstract of Cost Export to Excel

Name of Road : Name of Job :

Work From : To :

Activity Group	Activity No.	Description of Work	Unit	Quantity	Rate	Amount

Activity Group: 100 : Users Norm Activity No: 100.1:Earth work

Work Desc: Earth work Excavation

Unit: m3 Quantity: Rate: 350 Amount:

Add New Delete Save Close

Sub-Total:
 Contingencies 5%:
 Total with Contingencies:
 VAT 13%:
 Total (With VAT & Contingencies):

User: Damak1 Division: Damak Year: 2013

5.10.3 View Summary

Provides the summary of the reconstruction works. Right click on the grid to export the data to Excel

ARMP-Annual Road Maintenance Planning - [Summary of Upgrading Works]

System Rates Norms ARMP IARMP Report Map Help

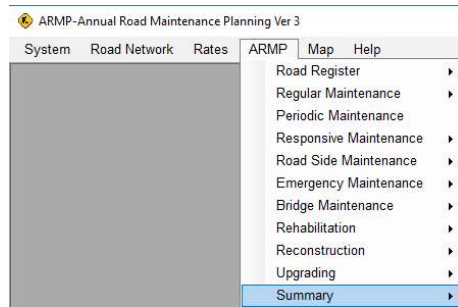
Upgrading Works Summary Year: 2013

Division: Damak Load Export to Excel

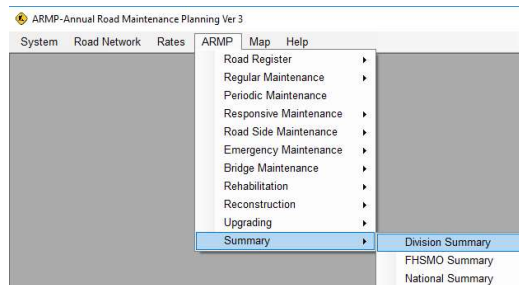
	Link Code	Link Name	From	To	Length	Specific Work Description	Work From	Work To	Work Length	Total Cost
▶	Total									0.00

Close

5.11 Summary Sub Menu



5.11.1 Division Summary



Annual Road Maintenance Summary

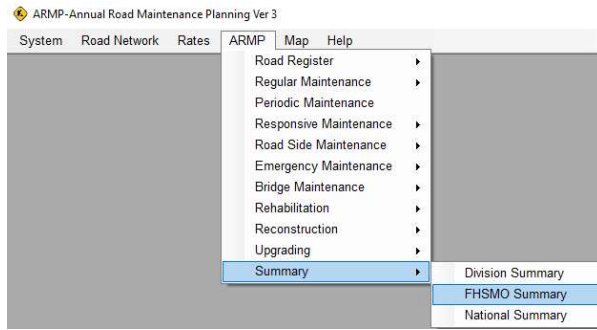
Division: Biratnagar

Annual Road Maintenance Summary Sheet

Link Code	Link Name	From	To	Total Length	Routine Maintenance Length (Km)	Routine Maintenance Cost (NRs '000)	Reactive Maintenance Length (Km)	Reactive Maintenance Cost (NRs '000)	Combined Maintenance Length (Km)	Combined Maintenance Cost (NRs '000)	Total Regular Maintenance Cost (NRs '000)	Periodic Length (Km)	Periodic Cost (NRs '000)	Repon Le (
NH01-011	Sunsari bridge-Koshi Barrage	111.05	134.93	23.88	23.88	1,613.63	23.88	3,938.14	0.00	0.00	5,551.77	0.00	0.00	
NH01-012	Koshi Barrage-Bharadaha	134.93	140.95	6.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH05-003	Ratuwa Nadi - Rangeli	47.97	66.38	18.41	18.41	1,244.01	0.00	0.00	0.00	0.00	1,244.01	0.00	0.00	
NH05-004	Rangeli - Biratnagar	66.38	89.62	23.24	23.24	1,570.39	0.00	0.00	0.00	0.00	1,570.39	0.00	0.00	
NH05-005	Biratnagar - Laukahi	89.62	122.78	33.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH06-001	Chhatara - Barahaksetra	0.00	4.64	4.64	4.64	472.44	4.64	232.00	0.00	0.00	704.44	0.00	0.00	
NH07-002	Koshi New Bridge - Charaghathi	19.98	43.56	23.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH07-003	Charaghathi - Kalabanjar	43.56	55.20	11.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH07-004	Kalabanjar - Chhatara	55.20	65.92	10.72	10.72	724.38	0.00	0.00	0.00	0.00	724.38	0.00	0.00	
NH08-001	Rani (IB) - Biratnagar	0.00	6.64	6.64	6.64	448.68	0.00	0.00	0.00	0.00	448.68	0.00	0.00	
NH08-002	Biratnagar - Kanchanbari	6.64	8.22	1.58	1.58	106.76	0.00	0.00	0.00	0.00	106.76	0.00	0.00	
NH08-003	Kanchanbari - Duhabi	8.22	16.46	8.24	8.24	556.80	0.00	0.00	0.00	0.00	556.80	0.00	0.00	
NH08-004	Duhabi - Itahari	16.46	28.07	11.61	11.61	784.52	0.00	0.00	0.00	0.00	784.52	0.00	0.00	
NH08-005	Itahari - Seuti bridge	28.07	39.16	11.09	11.09	749.38	0.00	0.00	0.00	0.00	749.38	0.00	0.00	
NH08-006	Seuti bridge - Base Camp	39.16	49.29	10.13	10.13	684.51	10.13	2,624.58	0.00	0.00	3,309.09	0.00	0.00	
NH08-007	Base Camp - Bhedetar	49.29	61.61	12.32	12.32	1,254.40	12.32	14,143.00	0.00	0.00	15,397.41	12.32	76,698.97	
NH09-004	Refugee Camp - Madhumalla	79.81	85.28	5.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH09-005	Madhumalla - Madhumalla Juncti...	85.28	86.89	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH09-006	Madhumalla Junction - Dharan	86.89	131.24	44.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NH09-007	Dharan - Chhatara	131.24	150.04	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total				547.84	289.29	20,128.88	155.76	103,088.84	0.00	0.00	123,217.72	44.31	337,405.29	2

Right click on the grid to export the data to Excel

5.11.2 FHSMO Summary



FHSMO Summary

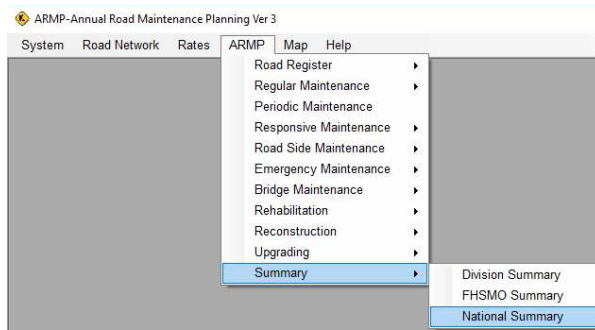
FHSMO: FHSMO-Itahari Load

Annual Road Maintenance Summary Sheet (FHSMO Summary)

	Division	Total Length	Routine Maintenance Length (Km)	Routine Maintenance Cost (NRs '000)	Reactive Maintenance Length (Km)	Reactive Maintenance Cost (NRs '000)	Combined Maintenance Length (Km)	Combined Maintenance Cost (NRs'000)	Total Regular Maintenance Cost (NRs '000)	Periodic Length (Km)	Periodic Cost (NRs '000)	Le
▶	Biratnagar	547.84	289.29	20,128.88	155.76	103,088.84	0.00	0.00	123,217.72	44.31	337,405.29	
	Chandranigahapur	371.66	102.06	6,896.46	61.50	20,767.90	0.00	0.00	27,664.36	52.92	271,250.99	
	Damak	409.59	165.87	11,072.44	125.23	68,334.94	0.00	0.00	79,407.39	24.68	320,896.64	
	Dhankuta	318.01	259.63	21,353.44	71.69	43,021.47	0.00	0.00	64,374.91	0.00	0.00	
	Harkhapur	761.97	379.14	22,516.20	39.00	27,494.91	0.00	0.00	50,011.11	0.00	0.00	
	Ilam	749.75	500.06	34,952.13	257.78	116,161.66	0.00	0.00	151,113.79	132.47	262,916.18	
	Janakpur	505.84	140.73	6,540.51	30.90	33,005.07	0.00	0.00	39,545.59	9.76	44,583.92	
	Lahan	727.08	635.74	42,065.47	235.24	42,671.62	0.00	0.00	84,737.08	49.22	228,966.74	
	Tumlingtar	395.76	207.30	17,863.80	135.80	41,469.38	0.00	0.00	59,333.18	25.00	173,525.63	
	Total	4,787.50	2,679.82	183,389.34	1,112.90	496,015.79	0.00	0.00	679,405.12	338.36	1,659,545.38	

Right click on the grid to export the data to Excel

5.11.3 National Summary



ARMP National Summary

National Summary

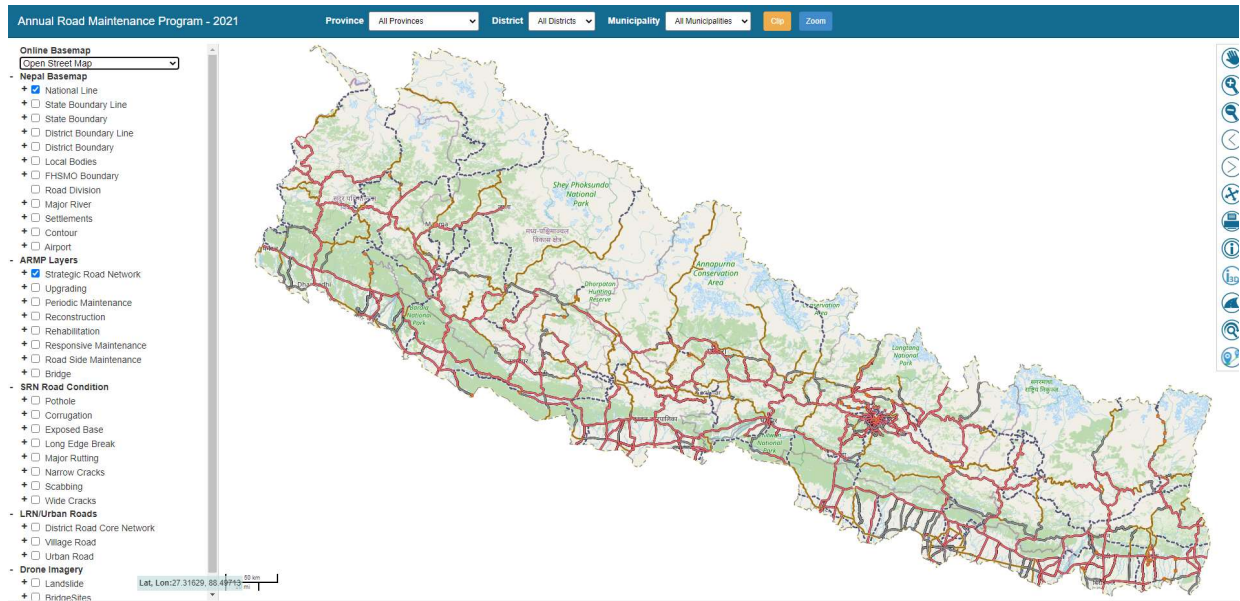
Annual Road Maintenance Summary Sheet (National Summary)

	Division	Total Length	Routine Maintenance Length (Km)	Routine Maintenance Cost (NRs '000)	Reactive Maintenance Length (Km)	Reactive Maintenance Cost (NRs '000)	Combined Maintenance Length (Km)	Combined Maintenance Cost (NRs '000)	Total Regular Maintenance Cost (NRs '000)	Periodic Length (Km)	Periodic Cost (NRs '000)	Reponsive Length (Km)	Responsive Cost (NRs '000)	Ro Maint Leng
▶	Baglung	583.24	522.00	24,501.20	151.00	20,464.87	36.24	12,429.95	57,396.02	15.42	51,240.00	15.00	711.90	
	Baitadi	678.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Bhaktapur	267.42	215.56	16,657.89	0.00	0.00	0.00	0.00	16,657.89	64.13	414,840.00	0.00	0.00	
	Bharatpur	501.53	436.53	40,116.15	0.00	0.00	0.00	0.00	40,116.15	0.00	0.00	0.00	0.00	
	Biratnagar	468.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Butwal	561.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Chandranigahapur	384.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Charikot	501.32	434.32	47,883.30	0.00	0.00	0.00	0.00	47,883.30	0.00	0.00	0.00	0.00	
	Chaurjahani	506.40	365.40	24,926.75	0.00	0.00	0.00	0.00	24,926.75	0.00	0.00	0.00	0.00	
	Damak	212.60	164.60	11,750.50	0.00	0.00	0.00	0.00	11,750.50	0.00	0.00	0.00	0.00	
	Damauli	634.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Dang	535.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Dhankuta	259.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Doti	477.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<	NSRP	160.00	160.00	16,405.00	0.00	0.00	0.00	0.00	16,405.00	0.00	0.00	0.00	0.00	>

Right click on the grid to export the data to Excel

5.12 Map

A basic map interface is provided using web based mapping.



The map interface provides following facilities.

- Select Online Background Maps
- View the SRN network
- Zoom to Province/Districts and Municipalities
- Zoom to Divisions and highlight/Mask
- Export to Map to PDF/JPG with various scales and paper size of A4.
- Overlay Google maps (Satellite, Hybrid, street, Terrain etc)
- Search Roads using road code/link code
- Turn On/Off various layers (Base Map and ARMP layers)
- View SDI defects in the Map
- View some Drone Imagery and Landslide and Bridge information in 3D
- On screen Identification of various elements of the map.
- Clipping of the road division boundary.

The map loading may vary with the internet speed.

5.13 Help Sub Menu (About)

