

HOW TO USE THE PLANNING AND BUDGETING TOOL

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1. National roads

The Planning and Budgeting tool of Estrada allows you to create a multi-year plan, calculating its estimated budget and preparing the annual plans.

Most of the work is done outside the Estrada using an Excel template designed to support the planning work. In the Excel file, cells with a grey background can be modified. All the other cells should NOT be modified apart from “Type of work” on the column L of the worksheet “5YP” when no condition data is available or when the user preparing the plan decides that the type of work recommended by Estrada is not appropriated.

Points 1, 2 and 7 requires that you have access to the internet. All other steps of the planning can be done off-line (no internet access is required).

1.1. Download files to start preparing the plan

For this step you will need Internet connection. Please login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. After opening the Planning page, click on “Plans Templates”. From the list of templates, download the Excel template for National Roads and the “Query” file for National roads. Save your Excel template and the query file on a folder, naming it, for example, National Roads – 5YP (star and end year of your plan)

1.2. Import data from Estrada

For this step you will need Internet connection.

1.2.1 Open the template Excel file you downloaded.

1.2.2 On the Excel file, go to “Inventory” Worksheet. Click on the cell A1 of the Inventory Worksheet. On Excel top menu select “Data”. On the dropdown menu select “Get external data” and after “Run web query”. A window will open for you to select a file. You should select the query file download from the Estrada “NAME XXXX”

1.2.3 You will be requested to enter a security token. The token is used to prevent people without permission to access data from the Estrada. In order to get your token, you should login to Estrada (Estrada.temp.buil) with your user name and password. On the Estrada click on “Planning” on the top menu and after click on “Templates” from the left side menu. On that page you will find your token code. Copy and paste it on the Excel window that is requesting the token.

1.2.4 Wait while the information is being loaded from the Estrada database to your Excel file. This might take a couple of minutes, depending on your internet speed. Don't close the Excel file while this is in progress.

1.2.5 Once the import process is completed, available data for National roads will be on your Excel file and ready to be used for the planning. Any time you want to get the most updated information from the Estrada, you can easily do so. On your Excel file open “Data” on the top menu, and select “Refresh” from the dropdown menu. Please wait while the data is being refreshed.

1.3. Start preparing your plan

1.3.1 On your Excel file go to the “5YP” worksheet

1.3.2 On cell E5 add the first year of your plan (e.g. 2020)

1.3.3 On cell G5 add the second year of your plan (e.g. 2021)

1.3.4 On cell I5 add the third year of your plan (e.g. 2022)

1.3.5 On cell K5 add the fourth year of your plan (e.g. 2023)

1.3.6 On cell M5 add the fifth year of your plan (e.g. 2024)

1.3.7 The priority on the multi-year plan is to preserve roads in Good condition. For that, all segments of roads that are in “Good” condition will be recommended for Routine maintenance for all the years of the plan and will be the priority. The recommendation of type of work for segments in Good condition is automatically set. Estimated budget will be calculated automatically as well, according to the information available. You don’t need to enter any further data for those segments unless you want to define a different type of work.

1.3.8 When condition / IRI data is not known for a segment of the road, the values on the detail plan on the column K (Condition) will show “Not measured”. In those cases, it is required to conduct field inspections in order to assess the condition of road and decide what type of work needs to be done. In those cases, on the column L on the detailed plan table, user can enter the type of work required: Routine Maintenance, Periodic Maintenance or Rehabilitation. Make sure you use the correct wording in order to ensure that the rest of the functionalities on the plan will work – failing to do that can prevent other functionalities to work correctly.

1.3.9 The Estrada planning template automatically calculates the prioritization index and ranking according to a pre-defined criteria and formula. If a segment of a road serves one or more facilities/connections, user should add those manually. Columns N, O, P and Q offer a dropdown menu from where user can pick up facilities served (up to four, one per column). The information on facilities served will be used to calculate the priority of the segments that require Periodic Maintenance and Rehabilitation.

As the planning job may need several days/weeks to be completed, you should frequently save the changes on the Excel file (on Excel File > Save).

1.4. Review criteria

Some criteria and information used for the planning can be reviewed by the user and modified when needed.

1.4.1 On your Excel file go to the “Type of work” worksheet to review the type of work required according to the IRI value. This is a standard criteria defined by the DRBFC and should only be modified if there is a new defined criteria for the type of work from the MPW and DRBFC.

1.4.2 On the worksheet “Unit cost” user can review and update the unit cost per type of work. To modify the cost of Rehabilitation work per kilometer, user can enter the value on cell D7. To modify the cost of Periodic Maintenance per kilometer, user can enter the value on cell D8. To modify the cost of Routine Maintenance per kilometer, user can enter the value on cell D9. Enter only numeric values in the cells. Don’t modify other cells in order to prevent the malfunction of the system.

1.4.3 On the worksheet “Prioritization” there is a list of facilities and connections served by a road and a number of points designated for each. If you need to change the points for any type of facility, change it on the column C (each row represents a facility). Use values between 0 and 20, 0 being the lowest priority and 20 being the highest priority of a facility. Facility points will be used in the detailed “5YP” to create a prioritization ranking for segments. This will help the user decide the year for the Rehabilitation and Periodic Maintenance planning for each road segment

1.5. Pick the year to complete the 5-year plan

1.5.1 On your Excel file go to the “5YP” worksheet

1.5.2 To create a plan, user needs to decide when Rehabilitation and Periodic Maintenance works should be done. For that, user can pick the year of Rehabilitation and Periodic Maintenance work for each specific segment of all roads. This does not apply to roads in “Good” condition as those will be automatically proposed for Routine Maintenance.

For each road segment that requires Periodic Maintenance and Rehabilitation, users should pick the year of the planned work (0 to 5 – 0 when you wish to leave that segment out of the 5-year plan, 1 to pick it to be treated in year 1, 2 to be treated in year 2 of the plan and so on and so forth). The year of treatment can be selected from a dropdown menu on column AA of the “5YP” worksheet. Automatically the cost for each treatment will be calculated per year. All roads segments that are not in Good condition but are planned to be treated within the 5-year period, will be recommended for Routine Maintenance in the year after its rehabilitation or Periodic Maintenance.

1.5.3 To view the total estimated budget per year and per type of work, you can check at any time the “5 year plan total estimated budget” on the top of the “5YP” worksheet (top right).

1.5.4 After completing the 5-year plan, on cell B7 of the “5YP” worksheet, user should add the date the plan was prepared.

1.5.5 Save the Excel plan

1.6. Access annual plans and summary

Once you complete your plan, the 5 annual plans will automatically be ready

1.6.1. On your Excel file go to the “Year 1” worksheet (you will also find worksheets for each one of the planned years: “Year 2”, “Year 3”, “Year 4” and “Year 5”)

1.6.2 On those worksheets you will find the detailed plan per segment for each year of the plan, as well as summary information on length and cost estimated for each year.

1.6.3 If you wish to modify something on your annual plan, don’t do it in these worksheets. Instead go to the “5YP” worksheet and modify it there. Any modification on the 5-year plan will be automatically updated on the annual plans.

1.6.4 On the “Summary” worksheet you will find the aggregated information on estimated budget per year and per type of work of the 5-year plan prepared.

1.6.5 If you made any modification, save your Excel plan

1.7. Upload your plan to Estrada

For this step you will need Internet connection.

Once the 5-year plan is completed, you need to upload it to Estrada in order to make it accessible for others and to be used in the application.

1.7.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

1.7.2 On the Plans page, click on the green button “Upload 5-Year Plan”. Be aware that only users with permission to upload plans, will be able to use this feature.

1.7.3 A window will open on the Estrada. Click on the “Upload Excel plan” button and select your Excel plan from your computer. As the file is being uploaded, you can fill the Title field. It is recommended that you use a descriptive and simple title, for example “5YP National Roads (start and end year)”. Once the upload of the file is completed, click on “Save”.

1.7.4 Once a plan is approved by the responsible entity, you should go to the list of plans and on the first column “Approved” check the box in front of the plan. Doing so will set this plan as the approved and its information will be displayed on the “Dashboard” of the planning module. The dashboard shows aggregated information from all the approved plans on the current year +4 per type of work and road class.

1.7.5 On the list of plans on the “Plans” page you will see the document you just uploaded. If you wish to modify the upload document or the document title, click on the pencil icon on the row of your plan and a window will open where you can modify it.

1.7.6 If you want to delete an uploaded plan, click on the “X” icon. Be aware that after deleting it, the plan will be no longer available to you or to other users and it is not possible to undo that action.

1.7.7 You and other authorized users can download the Excel plans using the download icon available for each uploaded plan.

1.8. Modification of the plan

For this step you will need Internet connection.

Anytime a review or change on the plan is required, user can do so

1.8.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

1.8.2 Download the plan that requires reviews using the download icon. You should download and work on the plans available on Estrada as this is the centralized location for storing approved plans.

1.8.3 Review your plan on the “5YP” worksheet and if required (type of work on column L or year of work on column AA), change criteria on the worksheets “Unit cost”, “Type of work” and “Prioritization”. For detailed information on how to use the Excel file and what can be modified, please read steps 2 to 6 of this document.

1.8.4 Save your new plan and upload it to the Estrada – please refer to step 7 to see how to upload a plan.

1.8.5 Once the upload is completed, on the list of plans check the “Approved” box for your newly uploaded file (once the plan is approved). The tables on the dashboard will be updated according to the information on the most recent plan approved.

2. Municipal roads

The Planning and Budgeting tool of Estrada allows you to create a multi-year plan, calculating its estimated budget and preparing the annual plans.

Most of the work is done outside the Estrada using an Excel template designed to support the planning work. In the Excel file, cells with a grey background can be modified. All the other cells should NOT be modified apart from “Type of work” on the column L of the worksheet “5YP” when no condition data is available or when the user preparing the plan decides that the type of work recommended by Estrada is not appropriated for a specific road segment.

Points 1, 2 and 7 requires that you have access to the internet. All other steps of the planning can be done off-line (no internet access is required).

2.1. Download files to start preparing the plan

For this step you will need Internet connection. Please login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. After opening the Planning page, click on “Plans Templates”. From the list of templates, download the Excel template for Municipal Roads and the “Query” file for Municipal roads. Save your Excel template and the query file on a folder, naming it, for example, Municipal Roads – 5YP (star and end year of your plan)

2.2. Import data from Estrada

For this step you will need Internet connection.

2.2.1 Open the template Excel file you downloaded.

2.2.2 On the Excel file, go to “Inventory” Worksheet. Click on the cell A1 of the Inventory Worksheet. On Excel top menu select “Data”. On the dropdown menu select “Get external data” and after “Run web query”. A window will open for you to select a file. You should select the query file download from the Estrada “NAME XXXX”

2.2.3 You will be requested to enter a security token. The token is used to prevent people without permission to access data from the Estrada. In order to get your token, you should login to Estrada (Estrada.temp.buil) with your user name and password. On the Estrada click on “Planning” on the top menu and after click on “Templates” from the left side menu. On that page you will find your token code. Copy and paste it on the Excel window that is requesting the token.

2.2.4 Wait while the information is being loaded from the Estrada database to your Excel file. This might take a couple of minutes, depending on your internet speed. Don't close the Excel file while this is in progress.

2.2.5 Once the import process is completed, available data for Municipal roads will be on your Excel file and ready to be used for the planning. Any time you want to get the most updated

information from the Estrada, you can easily do so. On your Excel file open “Data” on the top menu, and select “Refresh” from the dropdown menu. Please wait while the data is being refreshed.

2.3. Start preparing your plan

2.3.1 On your Excel file go to the “5YP” worksheet

2.3.2 On cell E5 add the first year of your plan (e.g. 2020)

2.3.3 On cell G5 add the second year of your plan (e.g. 2021)

2.3.4 On cell I5 add the third year of your plan (e.g. 2022)

2.3.5 On cell K5 add the fourth year of your plan (e.g. 2023)

2.3.6 On cell M5 add the fifth year of your plan (e.g. 2024)

2.3.7 The priority on the multi-year plan is to preserve roads in Good condition. For that, all segments of roads that are in “Good” condition will be recommended for Routine maintenance for all the years of the plan and will be the priority. The recommendation of type of work for segments in Good condition is automatically set. Estimated budget will be calculated automatically as well, according to the information available. You don’t need to enter any further data for those segments unless you want to define a different type of work.

2.3.8 When condition / IRI data is not known for a segment of the road, the values on the detail plan on the column K (Condition) will show “Not measured”. In those cases, it is required to conduct field inspections in order to assess the condition of road and decide what type of work needs to be done. In those cases, on the column L on the detailed plan table, user can enter the type of work required: Routine Maintenance, Periodic Maintenance or Rehabilitation. Make sure you use the correct wording in order to ensure that the rest of the functionalities on the plan will work – failing to do that can prevent other functionalities to work correctly.

2.3.9 The Estrada planning template automatically calculates the prioritization index and ranking according to a pre-defined criteria and formula. If a segment of a road serves one or more facilities/connections, user should add those manually. Columns N, O, P and Q offer a dropdown menu from where user can pick up facilities served (up to four, one per column). The information on facilities served will be used to calculate the priority of the segments that require Periodic Maintenance and Rehabilitation.

As the planning job may need several days/weeks to be completed, you should frequently save the changes on the Excel file (on Excel File > Save).

2.4. Review criteria

Some criteria and information used for the planning can be reviewed by the user and modified when needed.

2.4.1 On your Excel file go to the “Type of work” worksheet to review the type of work required according to the IRI value. This is a standard criteria defined by the DRBFC and should only be modified if there is a new defined criteria for the type of work from the MPW and DRBFC.

2.4.2 On the worksheet “Unit cost” user can review and update the unit cost per type of work. To modify the cost of Rehabilitation work per kilometer, user can enter the value on cell D7. To modify the cost of Periodic Maintenance per kilometer, user can enter the value on cell D8. To modify the cost of Routine Maintenance per kilometer, user can enter the value on cell D9. Enter only numeric values in the cells. Don’t modify other cells in order to prevent the malfunction of the system.

2.4.3 On the worksheet “Prioritization” there is a list of facilities and connections served by a road and a number of points designated for each. If you need to change the points for any type of facility, change it on the column C (each row represents a facility). Use values between 0 and 20, 0 being the lowest priority and 20 being the highest priority of a facility. Facility points will be used in the detailed “5YP” to create a prioritization ranking for segments. This will help the user decide the year for the Rehabilitation and Periodic Maintenance planning for each road segment.

2.5. Pick the year to complete the 5-year plan

2.5.1 On your Excel file go to the “5YP” worksheet

2.5.2 To create a plan, user needs to decide when Rehabilitation and Periodic Maintenance works should be done. For that, user can pick the year of Rehabilitation and Periodic Maintenance work for each specific segment of all roads. This does not apply to roads in “Good” condition as those will be automatically proposed for Routine Maintenance.

For each road segment that requires Periodic Maintenance and Rehabilitation, users should pick the year of the planned work (0 to 5 – 0 when you wish to leave that segment out of the 5-year plan, 1 to pick it to be treated in year 1, 2 to be treated in year 2 of the plan and so on and so forth). The year of treatment can be selected from a dropdown menu on column AA of the “5YP” worksheet. Automatically the cost for each treatment will be calculated per year. All roads segments that are not in Good condition but are planned to be treated within the 5-year period, will be recommended for Routine Maintenance in the year after its rehabilitation or Periodic Maintenance.

2.5.3 To view the total estimated budget per year and per type of work, you can check at any time the “5 year plan total estimated budget” on the top of the “5YP” worksheet (top right).

2.5.4 After completing the 5-year plan, on cell B7 of the “5YP” worksheet, user should add the date the plan was prepared.

2.5.5 Save the Excel plan

2.6. Access annual plans and summary

Once you complete your plan, the 5 annual plans will automatically be ready

2.6.1 On your Excel file go to the “Year 1” worksheet (you will also find worksheets for each one of the planned years: “Year 2”, “Year 3”, “Year 4” and “Year 5”)

2.6.2 On those worksheets you will find the detailed plan per segment for each year of the plan, as well as summary information on length and cost estimated for each year.

2.6.3 If you wish to modify something on your annual plan, don't do it in these worksheets. Instead go to the “5YP” worksheet and modify it there. Any modification on the 5-year plan will be automatically updated on the annual plans.

2.6.4 On the “Summary” worksheet you will find the aggregated information on estimated budget per year and per type of work of the 5-year plan prepared.

2.6.5 If changes to the document were performed, save your Excel plan

2.7. Upload your plan to Estrada

For this step you will need Internet connection.

Once the 5-year plan is completed, you need to upload it to Estrada in order to make it accessible for others and to be used in the application.

2.7.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

2.7.2 On the Plans page, click on the green button “Upload 5-Year Plan”. Be aware that only users with permission to upload plans, will be able to use this feature.

2.7.3 A window will open on the Estrada. Click on the “Upload Excel plan” button and select your Excel plan from your computer. As the file is being uploaded, you can fill the Title field. It is recommended that you use a descriptive and simple title, for example “5YP Municipal Roads (start and end year)”. Once the upload of the file is completed, click on “Save”.

2.7.4 Once a plan is approved by the responsible entity, you should go to the list of plans and on the first column “Approved” check the box in front of the plan. Doing so will set this plan as the approved and its information will be displayed on the “Dashboard” of the planning module. The dashboard shows aggregated information from all the approved plans on the current year +4 per type of work and road class.

2.7.5 On the list of plans on the “Plans” page you will see the document you just uploaded. If you wish to modify the upload document or the document title, click on the pencil icon on the row of your plan and a window will open where you can modify it.

2.7.6 If you want to delete an uploaded plan, click on the “X” icon. Be aware that after deleting it, the plan will be no longer available to you or to other users and it is not possible to undo that action.

2.7.7 You and other authorized users can download the Excel plans using the download icon available for each uploaded plan.

2.8. Modification of the plan

For this step you will need Internet connection.

Anytime a review or change on the plan is required, user can do so

2.8.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

2.8.2 Download the plan that requires reviews using the download icon. You should download and work on the plans available on Estrada as this is the centralized location for storing approved plans.

2.8.3 Review your plan on the “5YP” worksheet and if required (type of work on column L or year of work on column AA), change criteria on the worksheets “Unit cost”, “Type of work” and “Prioritization”. For detailed information on how to use the Excel file and what can be modified, please read steps 2 to 6 of this document.

2.8.4 Save your new plan and upload it to the Estrada – please refer to step 7 of this document to see how to upload a plan.

2.8.5 Once the upload is completed, on the list of plans check the “Approved” box for your newly uploaded file (once the plan is approved). The tables on the dashboard will be updated according to the information on the most recent plan approved.

3.Rural roads

The Planning and Budgeting tool of Estrada allows you to create a multi-year plan, calculating its estimated budget and preparing the annual plans.

Most of the work is done outside the Estrada using an Excel template designed to support the planning work. In the Excel file, cells with a grey background can be modified. All the other cells should NOT be modified apart from “Type of work” on the column M of the worksheet “5YP” when no condition data is available or when the user preparing the plan decides that the type of work recommended by Estrada is not appropriated for a specific road segment. Work type Spot Improvement is not recommended automatically by the tool. If a road or a segment of road requires Spot Improvement, user preparing the plan should define on column M the type of work to “Spot Improvement”.

Points 1, 2 and 7 requires that you have access to the internet. All other steps of the planning can be done off-line (no internet access is required).

3.1. Download files to start preparing the plan

For this step you will need Internet connection. Please login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. After opening the Planning page, click on “Plans Templates”. From the list of templates, download the Excel template for Rural Roads and the “Query” file for Rural roads. Save your Excel template and the query file on a folder, naming it, for example, Rural Roads – 5YP (start and end year of your plan).

3.2. Import data from Estrada

For this step you will need Internet connection.

3.2.1 Open the template Excel file you downloaded.

3.2.2 On the Excel file, go to “Inventory” Worksheet. Click on the cell A1 of the Inventory Worksheet. On Excel top menu select “Data”. On the dropdown menu select “Get external data” and after “Run web query”. A window will open for you to select a file. You should select the query file download from the Estrada “NAME XXXX”

3.2.3 You will be requested to enter a security token. The token is used to prevent people without permission to access data from the Estrada. In order to get your token, you should login to Estrada (Estrada.temp.buil) with your user name and password. On the Estrada click on “Planning” on the top menu and after click on “Templates” from the left side menu. On that page you will find your token code. Copy and paste it on the Excel window that is requesting the token.

3.2.4 Wait while the information is being loaded from the Estrada database to your Excel file. This might take a couple of minutes, depending on your internet speed. Don't close the Excel file while this is in progress.

3.2.5 Once the import process is completed, available data for Municipal roads will be on your Excel file and ready to be used for the planning. Any time you want to get the most updated information from the Estrada, you can easily do so. On your Excel file open “Data” on the top menu, and select “Refresh” from the dropdown menu. Please wait while the data is being refreshed.

3.2.6 Save your Excel file (on Excel File > Save)

3.3. Start preparing your plan

3.3.1 On your Excel file go to the “5YP” worksheet

3.3.2 On cell F5 add the first year of your plan (e.g. 2020)

3.3.3 On cell H5 add the second year of your plan (e.g. 2021)

3.3.4 On cell J5 add the third year of your plan (e.g. 2022)

3.3.5 On cell L5 add the fourth year of your plan (e.g. 2023)

3.3.6 On cell N5 add the fifth year of your plan (e.g. 2024)

3.3.7 The priority on the multi-year plan is to preserve roads in Good condition. For that, all segments of roads that are in “Good” condition will be recommended for Routine maintenance for all the years of the plan and will be the priority. The recommendation of type of work for segments in Good condition is automatically set. Estimated budget will be calculated automatically as well, according to the information available. You don’t need to enter any further data for those segments unless you want to define a different type of work.

3.3.8 When Surface condition (SDI) is not known for a segment of the road, the values on the detail plan on the column K (Condition) will show “Not measured”. In those cases, it is required to conduct field inspections in order to assess the condition of road and decide what type of work needs to be done. In those cases, on the column M on the detailed plan table, user can enter the type of work required: Routine Maintenance, Periodic Maintenance, Spot Improvement or Rehabilitation. Make sure you use the correct wording in order to ensure that the rest of the functionalities on the plan will work – failing to do that can prevent other functionalities to work correctly.

3.3.9 The Estrada planning template automatically calculates the prioritization index and ranking according to a pre-defined criteria and formula. If a segment of a road serves one or more social and economic facilities, user should add those manually. Columns O, P, Q and R offer a dropdown menu from where user can pick up facilities served (up to four, one per column). The information on facilities served will be used to calculate the priority of the segments that require Periodic Maintenance and Rehabilitation.

As the planning job may need several days/weeks to be completed, you should frequently save the changes on the Excel file (on Excel File > Save).

3.4. Review criteria

Some criteria and information used for the planning can be reviewed by the user and modified when needed.

3.4.1 On your Excel file go to the “IRI” worksheet to review the IRI value according to Surface Type and Surface Condition. Despite IRI not being measured for Rural roads, Rural roads estimated IRI value is used to calculate the Prioritization Index and based on that define the ranking of roads to be treated.

3.4.2 On the “Type of work criteria” worksheet user can review the type of work required according to the Surface Condition (SDI) value. This is a standard criteria defined by the DRBFC within the R4D program and should only be modified if there is a new defined criteria for the type of work from the MPW and DRBFC.

3.4.3 On the worksheet “Unit cost” user can review and update the unit cost per type of work, type of terrain and in some cases by surface type. On column C starting on row 7, user can enter the cost per Km for each one of the available scenarios. Enter only numeric values in the cells. Don’t modify other cells in order to prevent the malfunction of the system.

3.4.4 On the worksheet “Prioritization” there is a list of social and economic facilities served by a road and a number of points designated for each. If you need to change the points for any type of facility, change it on the column C (each row represents a facility). Use values between 0 and 20, 0 being the lowest priority and 20 being the highest priority of a facility. Facility points will be used in the detailed “5YP” to create a prioritization ranking for segments. This will help the user decide the year for the Rehabilitation and Periodic Maintenance planning for each road segment.

3.5. Pick the year to complete the 5-year plan

3.5.1 On your Excel file go to the “5YP” worksheet

3.5.2 To create a plan, user needs to decide when Rehabilitation and Periodic Maintenance works should be done. For that, user can pick the year of Rehabilitation, Spot Improvement and Periodic Maintenance work for each specific segment of all roads. This does not apply to roads in “Good” condition as those will be automatically proposed for Routine Maintenance.

For each road segment that requires Periodic Maintenance, Spot Improvement and Rehabilitation, users should pick the year of the planned work (0 to 5 – 0 when you wish to leave that segment out of the 5-year plan, 1 to pick it to be treated in year 1, 2 to be treated in year 2 of the plan and so on and so forth). The year of treatment can be selected from a dropdown menu on column AB of the “5YP” worksheet. Automatically the cost for each treatment will be calculated per year. All roads segments that are not in Good condition but are planned to be treated within the 5-year period, will be recommended for Routine Maintenance in the year after its rehabilitation, Spot Improvement or Periodic Maintenance.

3.5.3 To view the total estimated budget per year and per type of work, you can check at any time the “5 year plan total estimated budget” on the top of the “5YP” worksheet (top right).

3.5.4 After completing the 5-year plan, on cell B7 of the “5YP” worksheet, user should add the date the plan was prepared.

3.5.5 Save the Excel plan

3.6. Access annual plans and summary

Once you complete your plan, the 5 annual plans will automatically be ready

3.6.1. On your Excel file go to the “Year 1” worksheet (you will also find worksheets for each one of the planned years: “Year 2”, “Year 3”, “Year 4” and “Year 5”)

3.6.2 On those worksheets you will find the detailed plan per segment for each year of the plan, as well as summary information on length and cost estimated for each year.

3.6.3 If you wish to modify something on your annual plan, don’t do it in these worksheets. Instead go to the “5YP” worksheet and modify it there. Any modification on the 5-year plan will be automatically updated on the annual plans.

3.6.4 On the “Summary” worksheet you will find the aggregated information on estimated budget per year and per type of work of the 5-year plan prepared.

3.6.5 If changes to the document were performed, save your Excel plan

3.7. Upload your plan to Estrada

For this step you will need Internet connection.

Once the 5-year plan is completed, you need to upload it to Estrada in order to make it accessible for others and to be used in the application.

3.7.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

3.7.2 On the Plans page, click on the green button “Upload 5-Year Plan”. Be aware that only users with permission to upload plans, will be able to use this feature.

3.7.3 A window will open on the Estrada. Click on the “Upload Excel plan” button and select your Excel plan from your computer. As the file is being uploaded, you can fill the Title field. It is recommended that you use a descriptive and simple title, for example “5YP Rural Roads (start and end year)”. Once the upload of the file is completed, click on “Save”.

3.7.4 Once a plan is approved by the responsible entity, you should go to the list of plans and on the first column “Approved” check the box in front of the plan. Doing so will set this plan as the approved and its information will be displayed on the “Dashboard” of the planning module. The dashboard shows aggregated information from all the approved plans on the current year +4 per type of work and road class.

3.7.5 On the list of plans on the “Plans” page you will see the document you just uploaded. If you wish to modify the upload document or the document title, click on the pencil icon on the row of your plan and a window will open where you can modify it.

3.7.6 If you want to delete an uploaded plan, click on the “X” icon. Be aware that after deleting it, the plan will be no longer available to you or to other users and it is not possible to undo that action.

3.7.7 You and other authorized users can download the Excel plans using the download icon available for each uploaded plan.

3.8. Modification of the plan

For this step you will need Internet connection.

Anytime a review or change on the plan is required, user can do so

3.8.1 Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. Once the Planning page is open, click on “Plans” link on the left side menu.

3.8.2 Download the plan that requires reviews using the download icon. You should download and work on the plans available on Estrada as this is the centralized location for storing approved plans.

3.8.3 Review your plan on the “5YP” worksheet and if required (type of work on column M or year of work on column AB), change criteria on the worksheets “Unit cost”, “Type of work” and “Prioritization”. For detailed information on how to use the Excel file and what can be modified, please read steps 2 to 6 of this document.

3.8.4 Save your new plan and upload it to the Estrada – please refer to step 7 of this document to see how to upload a plan.

3.8.5 Once the upload is completed, on the list of plans check the “Approved” box for your newly uploaded file (once the plan is approved). The tables on the dashboard will be updated according to the information on the most recent plan approved.

4. Urban roads

The Planning and Budgeting tool of Estrada allows you to create a multi-year plan, calculating its estimated budget and preparing the annual plans.

Most of the work is done outside the Estrada using an Excel template designed to support the planning work. In the Excel file, cells with a grey background can be modified. All the other cells should not be modified.

Due to the absence of data for Urban Roads, its planning is different from the planning for other road classes. It will require the user to manually input data in order to prepare the planning

Points 1, 6 and 7 requires that you have access to the internet. All other steps of the planning can be done off-line (no internet access is required).

4.1. Download template file to start preparing the plan

For this step you will need Internet connection. Please login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox recommended). On the top menu, click on “Planning”. After opening the Planning page, click on “Plans Templates”. From the list of templates, download the Excel template for Urban Roads. Save your Excel template on a folder, naming it, for example, Urban Roads – 5YP (start and end year of your plan)

4.2. Start preparing your plan

4.2.1 On your Excel file go to the “5YP” worksheet

4.2.2 On cell E5 add the first year of your plan (e.g. 2020)

4.2.3 On cell G5 add the second year of your plan (e.g. 2021)

4.2.4 On cell I5 add the third year of your plan (e.g. 2022)

4.2.5 On cell K5 add the fourth year of your plan (e.g. 2023)

4.2.6 On cell M5 add the fifth year of your plan (e.g. 2024)

4.2.7 On column C, starting on row 16, add the total length of urban roads for each municipality

4.2.8 On column D, starting on row 16, add the total length of urban roads in GOOD condition for each municipality

4.2.9 On column E, starting on row 16, add the total length of urban roads in FAIR condition for each municipality

4.2.10 On column F, starting on row 16, add the total length of urban roads in POOR condition for each municipality

4.2.11 On column G, starting on row 16, add the total length of urban roads in BAD condition for each municipality

As the planning job may need several days/weeks to be completed, you should frequently save the changes on the Excel file (on Excel File > Save).

4.3. Review unit costs

Unit costs can be reviewed by the user and modified when needed

4.3.1 On your Excel file go to the “Unit cost” worksheet. To modify the cost of Rehabilitation work per kilometer, user can enter the value on cell B7. To modify the cost of Periodic Maintenance work per kilometer, user can enter the value on cell B8. To modify the cost of Routine Maintenance work per kilometer, user can enter the value on cell B9.