HOW TO USE THE PLANNING AND BUDGETING TOOL

estrada

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Hanesan sistema integradu husi jestaun estrada, Estrada fornese planeamentu no relatoriu orsamentu nebe sei suporta serbisu iha DNEPCC hodi dezenvolve planu tinan 5 no planu anual. Utilizadór hanesan adminstrador bele hare no dezenvolve planemaentu ba estrada nasional, estrada munisipal, estrada rural no estrada urbana.

1. Estrada nasional

Estrada nia instrumentu Planeamentu no Orsamentu permite utilizadór hodi kria planu tinan 5, kalkula estimasaun orsamentu no automatikamente produs planu anual bazeia ba planu tinan barak.

Prosesu halao sai husi Estrada uza formatu Excel nebe dezenhu hadi suporta serbisu planeamentu. Iha dokumentus Excel, sela ho antesedentes malahuk bele modifika. Sela sira seluk **LABELE** modifika aleinde "Tipu serbisu" iha koluna L husi worksheet "Planu Tinan 5" kuandu laiha dadus kondisaun disponivel ou kuandu utilizadór nebe prepara planeamentu deside katak tipu serbisu nebe rekomenda husi Estada la apropriadu.

Etape 1, 2 no 7 presiza utilizadór iha asesu ba internet. Etape seluk iha planeamentu be halo *off-line* (la presiza asesu internet).

1.1. Download dokumentus hodi komesa prepare planu

Ba etapa ida ne utilizadór tenki iha koneksaun internet. Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña. Rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaun planemanetu iha leten.

Depois loke pajina planeamentu, hanehan iha "Formatu Planeamentu". Husi lista formatu, download formatu *excel* ba Estrada Nasional. Salva formatu *Excel* iha pasta iha utilizadór nia komputador, fo naran, hanesan exemplu, Estrada Nasional - 5YP (Tinan komesa no remata utilizadór nia planeamentu)

1.2. Importa dadus husi Estrada

Ba etape ida utilizadór presiza koneksaun internet.

1.2.1 Loke formatu excel nebe *download* tia ona, utilizadór tenke hanehan "Habele Konteidu" Ne sei habele koneksaun entre utilizadór nia dokumentus excel no Estrada, asegura katak utilizadór sei hetan dadus atual husi Estrada kuandu presiza.

1.2.2 Iha dokumentus excel, ba iha "Inventariu" *worksheet* utilizadór sei hare dadus husi Estrada nebe importa ba iha dokumentus excel. Labele modifika ou halo mudansa iha inventariu *worksheet*, ne hanesan baze hodi prepara segmentu no rekemonda tipu serbisu no nesesidade manutensaun rutina. Kuandu utilizadór presiza atu refreska dadus iha inventariu, hanehan iha "dadus" iha excel, depois hanehan iha butaun "refreska dadus". Hein kuandu dadus inventariu atual download hela dokumentus *excel*.

1.2.3 Utilizadór sei husu atu hatama fixa seguransa. Fixa uza hodi prevene ema nebe laiha autorizasaun hodi asesu ba dadus iha Estrada. Atu hetan fixa tenki tama/*login* ba Estrada

(Estrada.temp.build) ho naran uzuáriu no seña. Iha Estrada hanehan "Planeamentu" iha leten no depois hanehan "Formatu" iha liman karuk. Iha pajina ne utilizadór sei hetan kodigu fixa. Kopia no muda ba janela Excel nebe husu fixa.

1.3. Prepara ita nia planu

1.3.1 Iha utilizadór nia dokumentus *Excel* ba iha "5YP" *worksheet*

1.3.2 Iha sela E5 aumenta tinan primeiru husi nia planu (2020).Iha sela G5 aumenta tinan segundu husi ita nia planu (ex: 2021). Iha sela I5 aumenta tinan terseiru husi ita nia planu (ex: 2022). Iha sela K5 aumentan tinan kuartu husi ita nia planu (ex: 2023). ha sela M5 aumenta tinan kintu husi ita nia planu (ex: 2024)

1.3.3 Prioridade iha planu tinan barak hodi mantein estrada iha Kondisaun *Good*. Tamba ne, estrada nia segementu hotu sei rekomenda ba manutensaun Rutina ba tinan hotu iha planu no sei sai prioridade. Rekomendasaun ba tipu serbisu ba segmentu iha kondisaun *Good* automatikamente prepara tia ona. Estimasaun orsamentu mos sei kalkula automatiamente, bazeia ba informaun nebe disponivel. Utilizadór la presiza hatama dadus foun ruma ba segmentu sira ne anaunserke utilizadór hakarak defini tipu serbisu.

1.3.4 Kuandu dadus kondisaun/IRI la hatene ba segmentu ida iha estrada, valor iha detallu planu iha koluna K (Kondisaun) sei hatudu "0". Ba kazu hanesan ne, presiza atu halo fiskalizasaun iha terenu ho nune'e bele hatene kondisaun estrada no deside tipu serbisu saida maka presiza atu halo. Ba kazu hanesan ne, iha koluna L iha tabela detallu planu, utilizadór bele hatama tipu serbisu nebe presiza: Manutensaun Rutina, Manutensaun Periodiku ou Rehabilitasaun. Tenki uza liafuan nebe loos ho nune'e bele garantia katak funsionalidade seluk iha planu sei serbisu - falha atu halo ida ne bele prevene funsionalidade sira seluk atu serbisu ho los.

1.3.5 Formatu planeamentu iha Estrada automatikamente kalkula indise prioritizasaun no klasifikasaun bazeia ba kriteria molok defini no formula. Se segmentu estrada ida serve fasilidade/ligasaun ida ou rua, utilizadór tenke aumenta ne ho manual. Koluna N, O, P no Q oferese buataun nebe bele dada tun husi neba utilizadór bele hili fasiliadade nebe serve (to hat, ida kada koluna). Informasaun iha fasilidade nebe serve sei uzi hodi kalkula prioridade segementu nebe presiza Manutensaun Periodiku no Rehabilitasaun.

Tamba serbisu planeamentu presiza loron/semana atu kompleta, utilizadór tenke salva bebeik mudanda nebe halo iha dokumentus *Excel* (iha Dokumentus *Excel* > Salva).

1.4. Ezamina kriteria

Kriteria balun no informasaun nebe uza iha planeamentu bele ezamina husi utilizadór no modifika kuandu presiza.

1.4.1 Iha utilizadór nia dokumentus *Excel* ba iha "Tipu Serbisu" *worksheet* atu ezamina tipu serbisu nebe presiza tuir valor IRI. Ne hanesan padraun kriteria define husi DNEPCC no so bele modifika kuandu iha ou defini ona kriteria foun ba tipu serbisu husi MOP no DNEPCC.

1.4.2 Iha worksheet "Kustu unidade" utilizadór bele ezamina no halo atualizasaun ba kustu unidade kada tipu serbisu. Atu modifika kustu serbisu Rehabilitasaun kada kilometru, utilizadór bele hatama valor iha sela D7. Atu modifika kustu Manutensaun Periodiku kada kilometru, utilizadór bele hatama valor iha sela D8. Atu modifika kustu Manutensaun Rutina kada kilometru, utilizadór bele hatama valor iha sela D9. Labele modifika sela sira seluk ho nune'e bele prevene funsionamentu aat iha sistema.

1.4.3 Iha *worksheet* "prioritizasaun" iha lista fasilidade no ligasaun serve husi estrada no numeru valor nebe fo ba kada fasilidade. Se utilizadór presiza atu troka valor kada tipu fasilidade, troka iha koluna C (kada linha reprezenta fasilidade). Uza valor entre 0 no 20, 0 maka prioridade kiik liu no 20 maka prioriodade boot liu ba segmentu. Valor fasilidade sei uza iha detallu "5YP" hodi kria prioritizasaun klasifikasaun ba segmentu. Ne sei ajuda utilizadór deside tinan ba planeamentu Rehabilitasaun no Manutensaun Periodiku kada estrada nia segmentu.

1.5. Hili tinan hodi kompleta planu tinan 5

1.5.1 Iha dokumentus *Excel* ba iha "5YP" *worksheet*

1.5.2 Atu kria planu, utilizadór tenke deside bainhara mak tenke halo serbisu ba Rehabilitasaun no Manutensaun Periodiku ba kada segmentu espesifiku ba estrada hotu. Ida ne la aplika ba estrada iha kondisaun "*Good*" tamba sei automatikamente refere ba Manutensaun Rutina.

Ba kada segmentu estrada nebe presiza Manutensaun Periodiku no Rehabilitasaun, utilizadór tenki hili tinan nebe planu atu halo serbisu (0 to 5, 0 kuandu utilizadór hakarak husik segmentu sai husi planu tinan 5 nian, 1 hili atu halo serbisu iha tinan 1, 2 hili atu halo serbisu iha tinan 2 no hanesan mos ho tinan sira seluk). Atu hili tinan ba tratamentu nian bele hanehan iha butaun iha koluna AA husi "5YP" *worksheet*. Automatikamente kustu ba kada tratamentu sei kalkula tinan-tinan.

Segmentu ba estrada hotu laiha kondisaun *Good* maibe planu atu trata iha iha periodu tinan 5 Nina, sei rekomenda ba Manutensaun Rutina depois nia rehabilitasaun ou manutensaun periodiku.

1.5.3 Atu hare orsamentu estimasaun total kada tinan no tipu serbisu, utilizadór bele hare iha kada tempu "orsamentu estimasaun total planu tinan 5" iha "5YP" worksheet nia leten (iha leten los)

1.5.4 Depois kompleta planu tinan 5, iha sela B7 husi "5YP" worksheet, utilizadór tenke aumenta data planu nebe prepara tia ona.

1.5.5 Salva planu *Excel*

1.6. Asesu planu anual no sumariu

Kuandu utilizadór kompleta ona planu, planu tinan 5 automatikamentu prontu.

1.6.1. Iha utilizadór nia dokumentus *excel* ba iha *worksheet* "Tinan 1" (utilizadór sei hetan mos *worksheet* ba kada tinan ne planu tia ona: "Tinan 2", "Tinan 3", "Tinan 4" no Tinan 5",

1.6.2 Iha *worksheets* sira ne utilizadór sei hetan planu detallu kada segmentu ba planu kada tinan, nomos sumariu informasaun kona ba naruk no estimasaun kustu kada tinan.

1.6.3 Se utilizadór hakarak atu modifika buat ruma iha planu anual, labele halo iha *worksheets* ne. Maibe ba iha *worksheet* "5YP" no modifika iha neba. Modifikasaun ruma ba planu tinan 5 sei automatikamentu atualiza iha planu anual.

1.6.4 Iha worksheet "Sumariu" utilizadór sei hetan informasaun konjuntu kona ba estimasaun orsamentu kada tinan no tips serbisu tinan 5 nebe prepara tia ona.

1.6.5 Se utilizadór halo modifikasaun, salva utilizadór nia planu *Excel.*

1.7. Upload planu ba Estrada

Etape premieru utilizadór tenki iha koneksaun internet.

Kuandu planu tinan 5 kompleta ona, utilizadór tenke *upload* iha Estrada ho nune'e ema seluk bele asesu no bele uza iha aplikasaun.

1.7.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

1.7.2 Iha pajina Planu, hanehan butaun azul "*Upload* Planu Tinan 5" Nota katak utilizadór nebe iha lisensa deit maka bele upload planu, maka bele uza feature ne.

1.7.3 Janela sei mosu iha Estrada. Hanehan iha butaun "*Upload* planu *Excel*" no hili planu Excel husi utilizadór nia komputador. Durante dokumentus *upload* hela, utilizadór bele prenxe naran Titlu. Rekomenda atu uza titlu nebe deskritivu no simples, hanesan examplu "5YP Estrada Nasional (tinan komesa no remata)". Bainhira *upload* kompleta ona , hanehan iha "Salva"

1.7.4 Kuandu planu hetan ona aprova husi entidade nebe responsabiliza, utilizadór tenke ba iha lista planu no iha koluna premeiru "Aprova" no tau sinal iha kaixa iha planu nia oin. Ho nune'e planu ne sei marka hanesan aprova no nia informasaun sei mosu iha "*Dashboard*" planeamentu nia. *Dashboard* hatudu informasaun konjuntu husi planu nebe aprova tia ona iha tinan atual ba kada tipu serbisu no klase estrada.

1.7.5 Iha lista planu iha pajina "Planu" utilizadór sei hare dokumentus nebe utilizadór foin upload. Se utilizadór hakarak modifika dokumentu nebe upload tia ona ou titlu dokumentus, hanehan iha sinal lapis iha tabela planu no janela ida sei mosu mai hodi utilizadór bele modifika.

1.7.6 Se hakarak apaga planu tebe upload tia ona, hanehan iha sinal "X". Nota katak depois apaga, planu sei laiha ba utilizadór no mos utilizadór sira seluk no la posivel atu fila fali ba asaun ne.

1.7.7 Ita no utilizadór autorizadu sira seluk bele *download* planu Excel uza sinal download nebe iha ba kada planu nebe upload tia ona.

1.8. Modifikasaun planu

Etape premieru utilizadór tenki iha koneksaun internet. Kuandu presiza ezamina ou mudansa iha planu, utilizadór bele halo .

1.8.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña, rekomenda uza browser (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

1.8.2 *Download* planu nebe presiza ezamina uza sinal download. Utilizadór tenke download no serbisu iha planu nebe disponivel iha Estrada tamba ne maka fatin sentralizadu hodi rai planu nebe aprova tia ona.

1.8.3 Ezamina utilizadór nia planu iha *worksheet* "5YP" no kuandu presiza (tipu serbisu iha koluna L to ou tinan serbisu iha koluna AA), troka kriteria iha *worksheets* "Kustu Unidade", "Tipu Serbisu" no "Prioritizasaun". Ba informasaun detallu hanusa maka atu uza dokumentus Excel no saida maka bele modifika, favor le iha etape 2 to 6 iha dokumentus ne.

1.8.4 Salva utilizadór nia planu foun iha Estrada - favor refere ba etape 7 hodi hare hanusa atu upload planu.

1.8.5 Kuandu upload kompleta ona, iha lista planu tau sinal iha kaixa "Aprova" ba utilizadór nia dokumentus upload foun (kuandu planu aprova ona). Tabela no dashboard sei automatikamente atualiza tuir informasaun atual nebe aprova.

2. Estrada munisipal

Estrada nia instrumentu Planeamentu no Orsamentu permite utilizadór hodi kria planu tinan 5, kalkula estimasaun orsamentu no automatikamente produs planu anual bazeia ba planu tinan barak.

Prosesu halao sai husi Estrada uza formatu *Excel* nebe dezenhu hadi suporta serbisu planeamentu. Iha dokumentus Excel, sela ho antesedentes malahuk bele modifika. Sela sira seluk **LABELE** modifika aleinde "Tipu serbisu" iha koluna L husi *worksheet* "Planu Tinan 5" kuandu laiha dadus kondisaun disponivel ou kuandu utilizadór nebe prepara planeamentu deside katak tipu serbisu nebe rekomenda husi Estada la apropriadu.

Etape 1, 2 no 7 presiza utilizadór iha asesu ba internet. Etape seluk iha planeamentu be halo *off-line* (la presiza asesu internet)

2.1. Download dokumentus hodi komesa prepare planu

Ba etapa ida ne utilizadór tenki iha koneksaun internet. Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten.

Depois like pajina planeamentu, hanehan iha "Formatu Planeamentu". Husi lista formatu, *download* formatu *excel* ba Estrada Munisipal. Salva formatu *Excel* iha pasta iha utilizadór nia komputador, fo naran, hanesan exemplu, Estrada Munisipal - 5YP (Tinan komesa no remata utilizadór nia planeamentu)

2.2. Importa dadus husi Estrada

Ba etape ida utilizadór presiza koneksaun internet.

2.2.1 Loke formatu *excel* nebe download tia ona, utilizadór tenke hanehan "Habele Konteidu" Ne sei habele koneksaun entre utilizadór nia dokumentus *excel* no Estrada, asegura katak utilizadór sei hetan dadus atual husi Estrada kuandu presiza.

2.2.2 Iha dokumentus *excel*, ba iha "Inventariu" *worksheet* utilizadór sei hare dadus husi Estrada nebe importa ba iha dokumentus excel. Labele modifika ou halo mudansa iha inventariu worksheet, ne hanesan baze hodi prepara segmentu no rekemonda tipu serbisu no nesesidade manutensaun rutina. Kuandu utilizadór presiza atu refreska dadus iha inventariu, hanehan iha "dadus" iha excel, depois hanehan iha butaun "refreska dadus". Hein kuandu dadus inventariu atual *download* hela dokumentus *excel.*

2.2.3 Utilizadór sei husu atu hatama fixa seguransa. Fixa uza hodi prevene ema nebe laiha autorizasaun hodi asesu ba dadus iha Estrada. Atu hetan fixa tenki tama/login ba Estrada

(Estrada.temp.build) ho naran uzuáriu no seña. Iha Estrada hanehan "Planeamentu" iha leten no depois hanehan "Formatu" iha liman karuk. Iha pajina ne utilizadór sei hetan kodigu fixa. Kopia no muda ba janela *Excel* nebe husu fixa.

2.3. Prepara ita nia planu

2.3.1 Iha utilizadór nia dokumentus *Excel* ba iha "5YP*" worksheet*

2.3.2 Iha sela E5 aumenta tinan primeiru husi nia planu (2020). Iha sela G5 aumenta tinan segundu husi ita nia planu (ex: 2021). Iha sela I5 aumenta tinan terseiru husi ita nia planu (ex: 2022). Iha sela K5 aumentan tinan kuartu husi ita nia planu (ex: 2023). ha sela M5 aumenta tinan kintu husi ita nia planu (ex: 2024)

2.3.3 Prioridade iha planu tinan barak hodi mantein estrada iha Kondisaun *Good*. Tamba ne, estrada nia segementu hotu sei rekomenda ba manutensaun Rutina ba tinan hotu iha planu no sei sai prioridade. Rekomendasaun ba tipu serbisu ba segmentu iha kondisaun *Good* automatikamente prepara tia on a. Estimasaun orsamentu mos sei kalkula automatiamente, bazeia ba informaun nebe disponivel. Utilizadór la presiza hatama dadus foun ruma ba segmentu sira ne anaunserke utilizadór hakarak defini tipu serbisu.

2.3.4 Kuandu dadus kondisaun/IRI la hatene ba segmentu ida iha estrada, valor iha detallu planu iha koluna K (Kondisaun) sei hatudu "0". Ba kazu hanesan ne, presiza atu halo fiskalizasaun iha terenu ho nune'e bele hatene kondisaun estrada no deside tipu serbisu saida maka presiza atu halo. Ba kazu hanesan ne, iha koluna L iha tabela detallu planu, utilizadór bele hatama tipu serbisu nebe presiza: Manutensaun Rutina, Manutensaun Periodiku ou Rehabilitasaun. Tenki uza liafuan nebe loos ho nune'e bele garantia katak funsionalidade seluk iha planu sei serbisu - falha atu halo ida ne bele prevene funsionalidade sira seluk atu serbisu ho los.

2.3.5 Formatu planeamentu iha Estrada automatikamente kalkula indise prioritizasaun no klasifikasaun bazeia ba kriteria molok defini no formula. Se segmentu estrada ida serve fasilidade/ligasaun ida ou rua, utilizadór tenke aumenta ne ho manual. Koluna N, O, P no Q oferese buataun nebe bele dada tun husi neba utilizadór bele hili fasiliadade nebe serve (to hat, ida kada koluna). Informasaun iha fasilidade nebe serve sei uzi hodi kalkula prioridade segementu nebe presiza Manutensaun Periodiku no Rehabilitasaun.

Tamba serbisu planeamentu presiza loron/semana atu kompleta, utilizadór tenke salva bebeik mudanda nebe halo iha dokumentus Excel (iha Dokumentus Excel > Salva).

2.4. Ezamina kriteria

Kriteria balun no informasaun nebe uza iha planeamentu bele ezamina husi utilizadór no modifika kuandu presiza.

2.4.1 Iha utilizadór nia dokumentus Excel ba iha "Tipu Serbisu" worksheet atu ezamina tipu serbisu nebe presiza tuir valor IRI. Ne hanesan padraun kriteria define husi DNEPCC no so bele modifika kuandu iha ou defini ona kriteria foun ba tipu serbisu husi MOP no DNEPCC.

2.4.2 Iha worksheet "Kustu unidade" utilizadór bele ezamina no halo atualizasaun ba kustu unidade kada tipu serbisu. Atu modifika kustu serbisu Rehabilitasaun kada kilometru, utilizadór bele hatama valor iha sela D7. Atu modifika kustu Manutensaun Periodiku kada kilometru, utilizadór bele hatama valor iha sela D8. Atu modifika kustu Manutensaun Rutina kada kilometru, utilizadór bele hatama valor iha sela D9. Labele modifika sela sira seluk ho nune'e bele prevene funsionamentu aat iha sistema.

2.4.3 Iha *worksheet* "prioritizasaun" iha lista fasilidade no ligasaun serve husi estrada no numeru valor nebe fo ba kada fasilidade. Se utilizadór presiza atu troka valor kada tipu fasilidade, troka iha koluna C (kada linha reprezenta fasilidade). Uza valor entre 0 no 20, 0 maka prioridade kiik liu no 20 maka prioriodade boot liu ba segmentu. Valor fasilidade sei uza iha detallu "5YP" hodi kria prioritizasaun klasifikasaun ba segmentu. Ne sei ajuda utilizadór deside tinan ba planeamentu Rehabilitasaun no Manutensaun Periodiku kada estrada nia segmentu.

2.5.   Hili tinan hodi kompleta planu tinan 5

2.5.1 Iha dokumentus *Excel* ba iha "5YP" *worksheet*

2.5.2 Atu kria planu, utilizadór tenke deside bainhara mak tenke halo serbisu ba Rehabilitasaun no Manutensaun Periodiku ba kada segmentu espesifiku ba estrada hotu. Ida ne la aplika ba estrada iha kondisaun "*Good*" tamba sei automatikamente refere ba Manutensaun Rutina.

Ba kada segmentu estrada nebe presiza Manutensaun Periodiku no Rehabilitasaun, utilizadór tenki hili tinan nebe planu atu halo serbisu (0 to 5, 0 kuandu utilizadór hakarak husik segmentu sai husi planu tinan 5 nian, 1 hili atu halo serbisu iha tinan 1, 2 hili atu halo serbisu iha tinan 2 no hanesan mos ho tinan sira seluk). Atu hili tinan ba tratamentu nian bele hanehan iha butaun iha koluna AA husi "5YP" *worksheet*. Automatikamente kustu ba kada tratamentu sei kalkula tinan-tinan.

Segmentu ba estrada hotu laiha kondisaun *Good* maibe planu atu trata iha iha periodu tinan 5 Nina, sei rekomenda ba Manutensaun Rutina depois nia rehabilitasaun ou manutensaun periodiku.

2.5.3 Atu hare orsamentu estimasaun total kada tinan no tipu serbisu, utilizadór bele hare iha kada tempu "orsamentu estimasaun total planu tinan 5" iha "5YP" *worksheet* nia leten (iha leten los)

2.5.4 Depois kompleta planu tinan 5, iha sela B7 husi "5YP*" worksheet*, utilizadór tenke aumenta data planu nebe prepara tia ona.

2.5.5 Salva planu *Excel*

2.6. Asesu planu anual no sumariu

Kuandu utilizadór kompleta ona planu, planu tinan 5 automatikamentu prontu.

2.6.1. Iha utilizadór nia dokumentus *excel* ba iha *worksheet* "Tinan 1" (utilizadór sei hetan mos worksheet ba kada tinan ne planu tia ona: "Tinan 2", "Tinan 3", "Tinan 4" no Tinan 5",

2.6.2 Iha worksheets sira ne utilizadór sei hetan planu detallu kada segmentu ba planu kada tinan, nomos sumariu informasaun kona ba naruk no estimasaun kustu kada tinan.

2.6.3 Se utilizadór hakarak atu modifika buat ruma iha planu anual, labele halo iha worksheets ne. Maibe ba iha *worksheet* "5YP" no modifika iha neba. Modifikasaun ruma ba planu tinan 5 sei automatikamentu atualiza iha planu anual.

2.6.4 Iha *worksheet* "Sumariu" utilizadór sei hetan informasaun konjuntu kona ba estimasaun orsamentu kada tinan no tips serbisu tinan 5 nebe prepara tia ona.

2.6.5 Se utilizadór halo modifikasaun, salva utilizadór nia planu *Excel*

2.7. Upload planu ba Estrada

Etape premeiru utilizadór tenki iha koneksaun internet.

Kuandu planu tinan 5 kompleta ona, utilizadór tenke upload iha Estrada ho nune'e ema seluk bele asesu no bele uza iha aplikasaun.

2.7.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña. Rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

2.7.2 Iha pajina Planu, hataun butaun azul "*Upload* Planu Tinan 5" Nota katak utilizadór nebe iha lisensa deit maka bele *upload* planu, maka bele uza *feature* ne.

2.7.3 Janela sei mosu iha Estrada. Hanehan iha butaun "*Upload* planu Excel" no hili planu *Excel* husi utilizadór nia komputador. Durante dokumentus *upload* hela, utilizadór bele prenxe naran Titlu. Rekomenda atu uza titlu nebe deskritivu no simples, hanesan examplu "5YP Estrada Munisipal (tinan komesa no remata)". Bainhira *upload* kompleta ona, hanehan iha "Salva".

2.7.4 Kuandu planu hetan ona aprova husi entidade nebe responsabiliza, utilizadór tenke ba iha lista planu no iha koluna premeiru "Aprova" no tau signal iha kaixa iha planu nia oin. Ho nune'e planu ne sei marka hanesan aprova no nia informasaun sei mosu iha "*Dashboard*" planeamentu nia. *Dashboard* hatudu informasaun konjuntu husi planu nebe aprova tia ona iha tinan atual ba kada tipu serbisu no klase estrada.

2.7.5 Iha lista planu iha pajina "Planu" utilizadór sei hare dokumentus nebe utilizadór foin upload. Se utilizadór hakarak modifika dokumentu nebe *upload* tia ona ou titlu dokumentus, hanehan iha sinal lapis iha tabela planu no janela ida sei mosu mai hodi utilizadór bele modifika.

2.7.6. Se atu apaga planu nebe upload tia ona, hanehan iha sinal "X". Nota katak depois apaga, planu sei laiha ba utilizadór no mos utilizadór sira seluk no la posivel atu fila fali ba asaun ne.

2.7.7 Ita no utilizadór autorizadu sira seluk bele download planu *Excel* uza sinal *download* nebe iha ba kada planu nebe upload tia ona.

2.8. Modifikasaun planu

Etape premieru utilizadór tenki iha koneksaun internet.

Kuandu presiza ezamina ou mudansa iha planu, utilizadór bele halo

1.8.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña, rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

Download planu nebe presiza ezamina uza sinal download. Utilizadór tenke download no serbisu iha planu nebe disponivel iha Estrada tamba ne maka fatin sentralizadu hodi rai planu nebe aprova tia ona.

1.8.3 Ezamina utilizadór nia planu iha *worksheet* "5YP" no kuandu presiza (tipu serbisu iha koluna L to ou tinan serbisu iha koluna AA), troka kriteria iha worksheets "Kustu Unidade", "Tipu Serbisu" no "Prioritizasaun". Ba informasaun detallu hanusa maka atu uza dokumentus *Excel* no saida maka bele modifika, favor le iha etape 2 to 6 iha dokumentus ne.

1.8.4 Salva utilizadór nia planu foun iha Estrada - favor refere ba etape 7 hodi hare hanusa atu upload planu.

1.8.5 Kuandu upload kompleta ona, iha lista planu tau sinal iha kaixa "Aprova" ba utilizadór nia dokumentus upload foun (kuandu planu aprova ona). Tabela no *dashboard* sei automatikamente atualiza tuir informasaun atual nebe aprova.

3. Estrada rural

Estrada nia instrumentu Planeamentu no Orsamentu permite utilizadór hodi kria planu tinan 5, kalkula estimasaun orsamentu no automatikamente produs planu anual bazeia ba planu tinan barak.

Prosesu halao sai husi Estrada uza formatu *Excel* nebe dezenhu hadi suporta serbisu planeamentu. Iha dokumentus Excel, sela ho antesedentes malahuk bele modifika. Sela sira seluk **LABELE** modifika aleinde "Tipu serbisu" iha koluna L husi worksheet "Planu Tinan 5" kuandu laiha dadus kondisaun disponivel ou kuandu utilizadór nebe prepara planeamentu deside katak tipu serbisu nebe rekomenda husi Estada la apropriadu.

Etape 1, 2 no 7 presiza utilizadór iha asesu ba internet. Etape seluk iha planeamentu be halo off-line (la presiza asesu internet)

3.1. Download dokumentus hodi komesa prepare planu

Ba etapa ida ne utilizadór tenki iha koneksaun internet. Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña. Rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaun planemanetu iha leten.

Depois loke pajina planeamentu, hanehan iha "Formatu Planeamentu". Husi lista formatu, download formatu excel ba Estrada Rural. Salva formatu *Excel* iha pasta iha utilizadór nia komputador, fo naran, hanesan exemplu, Estrada Rural - 5YP (Tinan komesa no remata utilizadór nia planeamentu)

3.2. Importa dadus husi Estrada

Ba etape ida utilizadór presiza koneksaun internet.

3.2.1 Loke formatu excel nebe *download* tia ona, utilizadór tenke hanehan "Habele Konteidu" Ne sei habele koneksaun entre utilizadór nia dokumentus *excel* no Estrada, asegura katak utilizadór sei hetan dadus atual husi Estrada kuandu presiza.

3.2.2 Iha dokumentus excel, ba iha "Inventariu" worksheet utilizadór sei hare dadus husi Estrada nebe importa ba iha dokumentus excel. Labele modifika ou halo mudansa iha inventariu worksheet, ne hanesan baze hodi prepara segmentu no rekemonda tipu serbisu no nesesidade manutensaun rutina. Kuandu utilizadór presiza atu refreska dadus iha inventariu, hanehan iha "dadus" iha *excel*, depois hanehan iha butaun "refreska dadus". Hein kuandu dadus inventariu atual download hela dokumentus *excel*.

3.2.3 Utilizadór sei husu atu hatama fixa seguransa. Fixa uza hodi prevene ema nebe laiha autorizasaun hodi asesu ba dadus iha Estrada. Atu hetan fixa tenki tama/*login* ba Estrada (Estrada.temp.build) ho naran uzuáriu no seña. Iha Estrada hanehan "Planeamentu" iha leten no depois hanehan "Formatu" iha liman karuk. Iha pajina ne utilizadór sei hetan kodigu fixa. Kopia no muda ba janela *Excel* nebe husu fixa.

3.3. Prepara ita nia planu

3.3.1 Iha utilizadór nia dokumentus Excel ba iha "5YP" *worksheet*

3.3.2 Iha sela E5 aumenta tinan primeiru husi nia planu (2020). Iha sela G5 aumenta tinan segundu husi ita nia planu (ex: 2021). Iha sela I5 aumenta tinan terseiru husi ita nia planu (ex: 2022). Iha sela K5 aumentan tinan kuartu husi ita nia planu (ex: 2023). ha sela M5 aumenta tinan kintu husi ita nia planu (ex: 2024)

3.3.3 Prioridade iha planu tinan barak hodi mantein estrada iha Kondisaun *Good*. Tamba ne, estrada nia segementu hotu sei rekomenda ba manutensaun Rutina ba tinan hotu iha planu no sei sai prioridade. Rekomendasaun ba tipu serbisu ba segmentu iha kondisaun *Good* automatikamente prepara tia on a. Estimasaun orsamentu mos sei kalkula automatiamente, bazeia ba informaun nebe disponivel. Utilizadór la presiza hatama dadus foun ruma ba segmentu sira ne anaunserke utilizadór hakarak defini tipu serbisu.

3.3.4 Kuandu dadus kondisaun/IRI la hatene ba segmentu ida iha estrada, valor iha detallu planu iha koluna K (Kondisaun) sei hatudu "0". Ba kazu hanesan ne, presiza atu halo fiskalizasaun iha terenu ho nune'e bele hatene kondisaun estrada no deside tipu serbisu saida maka presiza atu halo. Ba kazu hanesan ne, iha koluna L iha tabela detallu planu, utilizadór bele hatama tipu serbisu nebe presiza: Manutensaun Rutina, Manutensaun Periodiku ou Rhabilitasaun. Tenki uza liafuan nebe loos ho nune'e bele garantia katak funsionalidade seluk iha planu sei serbisu - falha atu halo ida ne bele prevent funsionalidade sira seluk atu serbisu ho los.

3.3.5 Formatu planeamentu iha Estrada automatikamente kalkula indise prioritizasaun no klasifikasaun bazeia ba kriteria molok defini no formula. Se segmentu estrada ida serve fasilidade/ligasaun ida ou rua, utilizadór tenke aumenta ne ho manual. Koluna N, O, P no Q oferese buataun nebe bele dada tun husi neba utilizadór bele hili fasiliadade nebe serve (to hat, ida kada koluna). Informasaun iha fasilidade nebe serve sei uzi hodi kalkula prioridade segementu nebe presiza Manutensaun Periodiku no Rehabilitasaun.

Tamba serbisu planeamentu presiza loron/semana atu kompleta, utilizadór tenke salva bebeik mudanda nebe halo iha dokumentus *Excel* (iha Dokumentus *Excel* > Salva).

3.4. Ezamina kriteria

Kriteria balun no informasaun nebe uza iha planeamentu bele ezamina husi utilizadór no modifika kuandu presiza.

3.4.1 Iha utilizadór nia dokumentus *Excel* ba iha "Tipu Serbisu" *worksheet* atu ezamina tipu serbisu

nebe presiza tuir valor IRI. Ne hanesan padraun kriteria define husi DNEPCC no so bele modifika kuandu iha ou defini ona kriteria foun ba tipu serbisu husi MOP no DNEPCC.

3.4.2 Iha *worksheet* "Kustu unidade" utilizadór bele ezamina no halo atualizasaun ba kustu unidade kada tipu serbisu. Atu modifika kustu serbisu Rehabilitasaun kada kilometru, utilizadór bele hatama valor iha sela D7. Atu modifika kustu Manutensaun Periodiku kada kilometru, utilizadór bele hatama valor iha sela D8. Atu modifika kustu Manutensaun Rutina kada kilometru, utilizadór bele hatama valor iha sela D9. Labele modifika sela sira seluk ho nune'e bele prevene funsionamentu aat iha sistema.

3.4.3 Iha *worksheet* "prioritizasaun" iha lista fasilidade no ligasaun serve husi estrada no numeru valor nebe fo ba kada fasilidade. Se utilizadór presiza atu troka valor kada tipu fasilidade, troka iha koluna C (kada linhar reprezenta fasilidade). Uza valor entre 0 no 20, 0 maka prioridade kiik liu no 20 maka prioriodade boot liu ba segmentu. Valor fasilidade sei uza iha detallu "5YP" hodi kria prioritizasaun klasifikasaun ba segmentu. Ne sei ajuda utilizadór deside tinan ba planeamentu Rehabilitasaun no Manutensaun Periodiku kada estrada nia segmentu.

3.5.   Hili tinan hodi kompleta planu tinan 5

3.5.1 Iha dokumentus Excel ba iha "5YP*" worksheet*

3.5.2 Atu kria planu, utilizadór tenke deside bainhara mak tenke halo serbisu ba Rehabilitasaun no Manutensaun Periodiku ba kada segmentu espesifiku ba estrada hotu. Ida ne la aplika ba estrada iha kondisaun "*Good*" tamba sei automatikamente refere ba Manutensaun Rutina.

Ba kada segmentu estrada nebe presiza Manutensaun Periodiku no Rehabilitasaun, utilizadór tenki hili tinan nebe planu atu halo serbisu (0 to 5, 0 kuandu utilizadór hakarak husik segmentu sai husi planu tinan 5 nian, 1 hili atu halo serbisu iha tinan 1, 2 hili atu halo serbisu iha tinan 2 no hanesan mos ho tinan sira seluk). Atu hili tinan ba tratamentu nian bele hanehan iha butaun iha koluna AA husi "5YP" worksheet. Automatikamente kustu ba kada tratamentu sei kalkula tinan-tinan.

Segmentu ba estrada hotu laiha kondisaun *Good* maibe planu atu trata iha iha periodu tinan 5 Nina, sei rekomenda ba Manutensaun Rutina depois nia rehabilitasaun ou manutensaun periodiku.

3.5.3 Atu hare orsamentu estimasaun total kada tinan no tipu serbisu, utilizadór bele hare iha kada tempu "orsamentu estimasaun total planu tinan 5" iha "5YP" *worksheet* nia leten (iha leten los)

3.5.4 Depois kompleta planu tinan 5, iha sela B7 husi "5YP" *worksheet*, utilizadór tenke aumenta data planu nebe prepara tia ona.

3.5.5 Salva planu *Excel*

3.6.   Asesu planu anual no sumariu

Kuandu utilizadór kompleta ona planu, planu tinan 5 automatikamentu prontu.

3.6.1. Iha utilizadór nia dokumentus excel ba iha *worksheet* "Tinan 1" (utilizadór sei hetan mos *worksheet* ba kada tinan ne planu tia ona: "Tinan 2", "Tinan 3", "Tinan 4" no Tinan 5",

3.6.2 Iha *worksheets* sira ne utilizadór sei hetan planu detallu kada segmentu ba planu kada tinan, nomos sumariu informasaun kona ba naruk no estimasaun kustu kada tinan.

3.6.3 Se utilizadór hakarak atu modifika buat ruma iha planu anual, labele halo iha *worksheets* ne. Maibe ba iha worksheet "5YP" no modifika iha neba. Modifikasaun ruma ba planu tinan 5 sei automatikamentu atualiza iha planu anual.

3.6.4 Iha *worksheet* "Sumariu" utilizadór sei hetan informasaun konjuntu kona ba estimasaun orsamentu kada tinan no tips serbisu tinan 5 nebe prepara tia ona.

3.6.5 Se utilizadór halo modifikasaun, salva utilizadór nia planu *Excel*

3.7. Upload planu ba Estrada

Etape premeiru utilizadór tenki iha koneksaun internet.

Kuandu planu tinan 5 kompleta ona, utilizadór tenke upload iha Estrada ho nune'e ema seluk bele asesu no bele uza iha aplikasaun.

3.7.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña. Rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

3.7.2 Iha pajina Planu, hataun butaun azul "*Upload* Planu Tinan 5" Nota katak utilizadór nebe iha lisensa deit maka bele upload planu, maka bele uza feature ne.

3.7.3 Janela sei mosu iha Estrada. Hanehan iha butaun "*Upload* planu Excel" no hili planu *Excel* husi utilizadór nia komputador. Durante dokumentus upload hela, utilizadór bele prenxe naran Titlu. Rekomenda atu uza titlu nebe deskritivu no simples, hanesan examplu "5YP Estrada Nasional (tinan komesa no remata)". Bainhira *upload* kompleta ona, hanehan iha "Salva".

3.7.4 Kuandu planu hetan ona aprova husi entidade nebe responsabiliza, utilizadór tenke ba iha lista planu no iha koluna premeiru "Aprova" no tau signal iha kaixa iha planu nia oin. Ho nune'e planu ne sei marka hanesan aprova no nia informasaun sei mosu iha "*Dashboard*" planeamentu nia. *Dashboard* hatudu informasaun konjuntu husi planu nebe aprova tia ona iha tinan atual ba kada tipu serbisu no klase estrada.

3.7.5 Iha lista planu iha pajina "Planu" utilizadór sei hare dokumentus nebe utilizadór foin *upload*. Se utilizadór hakarak modifika dokumentu nebe *upload* tia ona ou titlu dokumentus, hanehan iha sinal lapis iha tabela planu no janela ida sei mosu mai hodi utilizadór bele modifika.

3.7.6. Se atu apaga planu nebe upload tia ona, hanehan iha sinal "X". Nota katak depois apaga, planu sei laiha ba utilizadór no mos utilizadór sira seluk no la posivel atu film fali ba asaun ne.

3.7.7 Ita no utilizadór autorizadu sira seluk bele *download* planu *Excel* uza sinal *download* nebe iha ba kada planu nebe upload tia ona.

3.8.   Modifikasaun planu

Etape premieru utilizadór tenki iha koneksaun internet.

Kuandu presiza ezamina ou mudansa iha planu, utilizadór bele halo

3.8.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña, rekomenda uza browser (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

Download planu nebe presiza ezamina uza sinal download. Utilizadór tenke download no serbisu iha planu nebe disponivel iha Estrada tamba ne maka fatin sentralizadu hodi rai planu nebe aprova tia ona.

3.8.3 Ezamina utilizadór nia planu iha worksheet "5YP" no kuandu presiza (tipu serbisu iha koluna L to ou tinan serbisu iha koluna AA), troka kriteria iha worksheets "Kustu Unidade", "Tipu Serbisu" no "Prioritizasaun". Ba informasaun detallu hanusa maka atu uza dokumentus Excel no saida maka bele modifika, favor le iha etape 2 to 6 iha dokumentus ne.

3.8.4 Salva utilizadór nia planu foun iha Estrada - favor refere ba etape 7 hodi hare hanusa atu upload planu.

3.8.5 Kuandu upload kompleta ona, iha lista planu tau sinal iha kaixa "Aprova" ba utilizadór nia dokumentus upload foun (kuandu planu aprova ona). Tabela no dashboard sei automatikamente atualiza tuir informasaun atual nebe aprova

4. Estrada urbana

Estrada nia instrumentu Planeamentu no Orsamentu permite utilizadór hodi kria planu tinan 5, kalkula estimasaun orsamentu no automatikamente produs planu anual bazeia ba planu tinan barak.

Prosesu halao sai husi Estrada uza formatu Excel nebe dezenhu hadi suporta serbisu planeamentu. Iha dokumentus Excel, sela ho antesedentes malahuk bele modifika. Sela sira seluk **LABELE** modifika.

Tamba laiha dadus ba Estrada Urbana, nia planeamentu diferensia ho planeamentu ba klase estrada sira seluk. Ne sei presiza utilizadór hatama dadus ho manual hodi prepara planementu.

Etape 1, 6 no 7 presiza utilizadór iha asesu ba internet. Etape seluk iha planeamentu be halo off-line (la presiza asesu internet)

4.1. Download dokumentus hodi komesa prepare planu

Ba etape ida ne utilizadór tenki iha koneksaun internet. Tama/*login* ba Estrada (Estrada.temp.build)

ho hatama naran uzuáriu no seña rekomenda uza browser (Google Chrome ou Firefox). Hanehan butaun planemanetu iha leten.

Depois like pajina planeamentu, hanehan iha "Formatu Planeamentu". Husi lista formatu, download formatu excel ba Estrada Urbana. Salva formatu Excel iha pasta iha utilizadór nia komputador, fo naran, hanesan exemplu, Estrada Urbana - 5YP (Tinan komesa no remata utilizadór nia planeamentu)

4.2. Komesa prepara ita nia planu

4.2.1 Iha utilizadór nia dokumentus *Excel* ba iha "5YP" *worksheet*

4.2.2 Iha sela E5 aumenta tinan primeiru husi nia planu (2020).Iha sela G5 aumenta tinan segundu husi ita nia planu (ex: 2021). Iha sela I5 aumenta tinan terseiru husi ita nia planu (ex: 2022). Iha sela K5 aumentan tinan kuartu husi ita nia planu (ex: 2023). ha sela M5 aumenta tinan kintu husi ita nia planu (ex: 2024)

4.2.3 Iha koluna C, komesa husi linha 16, aumenta total naruk husi estrada urbana ba kada munisipiu. Iha koluna D, komesa husi linha 16, aumenta total naruk husi estrada urbana iha kondisaun *GOOD* ba kada munisipiu. Iha koluna E, komesa husi linha 16, aumenta total

naruk husi estrada urbana iha kondisaun fair ba kada munisipiu. Iha koluna F, komesa husi linha 16, aumenta total naruk husi estrada urbana iha kondisaun *POOR* ba kada munisipiu

Tamba serbisu planeamentu presiza loron/semana atu kompleta, utilizadór tenke salva bebeik mudanda nebe halo iha dokumentus *Excel* (iha Dokumentus *Excel* > Salva).

4.3. Ezamina kustu unidade

Kustu unidade bele ezamina husi utilizadór no modifika kuandu presiza.

4.3.1 Iha utilizadór nia dokumentus Excel ba iha worksheet "Kustu Unidade". Atu modifika kustu serbisu Rehabilitasaun kada kilometru, utilizadór bele hatama valor iha sela sela B7. Atu modifika kustu Manutensaun Periodiku kada kilometru, utilizadór bele hatama valor iha sela B8. Atu modifika kustu Manutensaun Rutina kada kilometru, utilizadór bele hatama valor iha sela B9.

4.4. Planu serbisu ba kada tinan

4.4.1 Iha utilizadór nia dokumentus *Excel* ba iha "5YP" *worksheet*

4.4.2 Atu kompleta planu, utilizadór tenke deside bainhira bainhara mak tenke halo serbisu ba Rehabilitasaun no Manutensaun Periodiku. Total naruk husi estrada urbana (bazeia ba valor iha koluna D, komesa iha linha 16) iha kondisaun *GOOD* sei automatikamente refere ba Manutensaun Rutina.

4.4.3 Atu defini naruk nebe planu ona atu halo Rehabilitasaun iha tinan 1, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna D (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo rehabilitasaun iha tinan 2, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna N (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo rehabilitasaun iha tinan 3, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna T (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo rehabilitasaun iha tinan 4, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna Z (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo rehabilitasaun iha tinan 5, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna AF (komesa iha linha 16).

4.4.4 Atu defini naruk nebe planu ona atu halo Manutensaun Periodiku iha tinan 1, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna J (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo Manutensaun Periodiku iha tinan 2, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna P (komesa iha linha 16). Atu defini

naruk nebe planu ona atu halo Manutensaun Periodiku iha tinan 3, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna V (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo Manutensaun Periodiku iha tinan 4, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna AB (komesa iha linha 16). Atu defini naruk nebe planu ona atu halo Manutensaun Periodiku iha tinan 2, utilizadór bele aumenta numeru kilometru kada munisipiu iha koluna AH (komesa iha linha 16).

4.4.5 Naruk ba estrada iha kondisaun *Good* automatikamente sei rekemonda ba Manutensaun Rutina ba tinan hotu husi programa nian. Naruk estrada hotu nebe laiha kondisaun *Good* maibe planu atu trata iha iha periodu tinan 5 nian, sei rekomenda automatikamente ba Manutensaun Rutina depois nia Rehabilitasaun ou Manutensaun Periodiku.

Atu hare orsamentu estimasaun total kada tinan no tipu serbisu, utilizadór bele hare iha kada tempu "orsamentu estimasaun total planu tinan 5" iha "5YP" worksheet nia leten (iha leten los)

4.4.6 Depois kompleta planu tinan 5, iha sela B7 husi *worksheet* "5YP", utilizadór aumenta data planu nebe prepara tia ona.

4.4.7 Salva planu *Excel*

4.5. Asesu planu sumariu

Kuandu utilizadór kompleta ona planu, planu tinan 5 automatikamentu prontu.

4.5.1 Planu anual iha tia ona *worksheet* "5YP"

4.5.2 Iha worksheet "Sumariu" utilizadór sei hetan informasaun konjuntu kona ba estimasaun orsamentu kada tinan no tipu serbisu tinan 5 nebe prepara tia ona.

4.5.3 Se utilizadór halo modifikasaun, salva utilizadór nia planu *Excel*

4.6 Upload planu ba Estrada

Etape premeiru utilizadór tenki iha koneksaun internet.

Kuandu planu tinan 5 kompleta ona, utilizadór tenke upload iha Estrada ho nune'e ema seluk bele asesu no bele uza iha aplikasaun.

4.6.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

4.6.2 Iha pajina Planu, hataun butaun azul "*Upload* Planu Tinan 5" Nota katak utilizadór nebe iha lisensa deit maka bele upload planu, maka bele uza feature ne.

4.6.3 Janela sei mosu iha Estrada. Hanehan iha butaun "*Upload* planu Excel" no hili planu Excel husi utilizadór nia komputador. Durante dokumentus upload hela, utilizadór bele prenxe naran Titlu. Rekomenda atu uza titlu nebe deskritivu no simples, hanesan examplu "5YP Estrada Nasional (tinan komesa no remata)". Bainhira *uplaod* kompleta ona, hanehan iha "Salva".

4.6.4 Kuandu planu hetan ona aprova husi entidade nebe responsabiliza, utilizadór tenke ba iha lista planu no iha koluna premeiru "Aprova" no tau sinal iha kaixa iha planu nia oin. Ho nune'e planu ne sei marka hanesan aprova no nia informasaun sei mosu iha "*Dashboard*" planeamentu nia. *Dashboard* hatudu informasaun konjuntu husi planu nebe aprova tia ona iha tinan atual ba kada tipu serbisu no klase estrada.

4.6.5 Iha lista planu iha pajina "Planu" utilizadór sei hare dokumentus nebe utilizadór foin upload. Se utilizadór hakarak modifika dokumentu nebe upload tia ona ou titlu dokumentus, hanehan iha sinal lapis iha tabela planu no janela ida sei mosu mai hodi utilizadór bele modifika.

4.6.6. Se atu apaga planu nebe upload tia ona, hanehan iha sinal "X". Nota katak depois apaga, planu sei laiha ba utilizadór no mos utilizadór sira seluk no la posivel atu film fali ba asaun ne.

4.6.7 Ita no utilizadór autorizadu sira seluk bele *download* planu *Excel* uza sinal *download* nebe iha ba kada planu nebe upload tia ona.

4.7. Modifikasaun planu

Etape premieru utilizadór tenki iha koneksaun internet.

Kuandu presiza ezamina ou mudansa iha planu, utilizadór bele halo

4.7.1 Tama/*login* ba Estrada (Estrada.temp.build) ho hatama naran uzuáriu no seña, rekomenda uza *browser* (Google Chrome ou Firefox). Hanehan butaaun planemanetu iha leten. Iha leten hanehan "planeamentu". Kuandu pajina planeamentu mosu ona, hanehan "Planu" iha karuk.

4.7.2 *Download* planu nebe presiza ezamina uza sinal download. Utilizadór tenke download no serbisu iha planu nebe disponivel iha Estrada tamba ne maka fatin sentralizadu hodi rai planu nebe aprova tia ona.

4.7.3 Ezamina utilizadór nia planu iha "5YP".

4.7.4 Salva utilizadór nia planu foun iha Estrada - favor refere ba etape 6 hodi hare hanusa atu *upload* planu.

4.7.5 Kuandu upload kompleta ona, iha lista planu tau sinal iha kaixa "Aprova" ba utilizadór nia dokumentus upload foun (kuandu planu aprova ona). Tabela no *dashboard* sei automatikamente atualiza tuir informasaun atual nebe aprova.

1. National roads

The Planning and Budgeting tool of Estrada allows you to create a 5-year plan, calculating its estimated budget and automatically generating the annual plans based on the multi-year plan.

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.

Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox are recommended). On the top menu, click on "Planning".

After opening the Planning page, click on "Planning Templates". From the list of templates, download the Excel template for National Roads. Save your Excel template on a folder on your computer, 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. You will see a Security Warning alert, you should click on the "Enable Content". This will enable the connection between your Excel file and the Estrada, ensuring that you will get updated data from Estrada when needed.

1.2.2 On the Excel file, go to "Inventory" Worksheet you will see that data from the Estrada was imported to the Excel file. Don't modify or make any change in the Inventory worksheet, this is the base to prepare the segments and recommend on the type of work and routine maintenance needs. Whenever you need to refresh the data on the Inventory, click on "Data" menu of Excel, then click on "Refresh data" button. Wait while the latest inventory data from the Estrada is being downloaded to the Excel file.

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). On cell G5 add the second year of your plan (e.g. 2021). On cell I5 add the third year of your plan (e.g. 2022). On cell K5 add the fourth year of your plan (e.g. 2023). On cell M5 add the fifth year of your plan (e.g. 2024)

1.3.3 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.

1.3.4 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 "0". 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.

1.3.5 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 5-year plan, calculating its estimated budget and automatically generating the annual plans based on the multi-year plan.

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).

2.1. Download files to start preparing the plan

For this step you will need Internet connection.

Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox are recommended). On the top menu, click on "Planning".

After opening the Planning page, click on "Planning Templates". From the list of templates, download the Excel template for Municipal Roads. Save your Excel template on a folder on your computer, 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. You will see a Security Warning alert, you should click on the "Enable Content". This will enable the connection between your Excel file and the Estrada, ensuring that you will get updated data from Estrada when needed.

2.2.2 On the Excel file, go to "Inventory" Worksheet you will see that data from the Estrada was imported to the Excel file. Don't modify or make any change in the Inventory worksheet, this is the base to prepare the segments and recommend on the type of work and routine maintenance needs. Whenever you need to refresh the data on the Inventory, click on "Data" menu of Excel, then click on "Refresh data" button. Wait while the latest inventory data from the Estrada is being downloaded to the Excel file.

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.

2.3. 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). On cell G5 add the second year of your plan (e.g. 2021). On cell I5 add the third year of your plan (e.g. 2022). On cell K5 add the fourth year of your plan (e.g. 2023). On cell M5 add the fifth year of your plan (e.g. 2024)

2.3.3 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.

2.3.4 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.

2.3.5 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.

Login to Estrada (Estrada.temp.build) with your user name and password using your browser (Google Chrome or Firefox are recommended). On the top menu, click on "Planning".

After opening the Planning page, click on "Planning Templates". From the list of templates, download the Excel template for Rural Roads. Save your Excel template on a folder on your computer, naming it, for example, Rural Roads – 5YP (star 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. You will see a Security Warning alert, you should click on the "Enable Content". This will enable the connection between your Excel file and the Estrada, ensuring that you will get updated data from Estrada when needed.

3.2.2 On the Excel file, go to "Inventory" Worksheet you will see that data from the Estrada was imported to the Excel file. Don't modify or make any change in the Inventory worksheet, this is the base to prepare the segments and recommend on the type of work and routine maintenance needs. Whenever you need to refresh the data on the Inventory, click on "Data" menu of Excel, then click on "Refresh data" button. Wait while the latest inventory data from the Estrada is being downloaded to the Excel file.

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.

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). On cell H5 add the second year of your plan (e.g. 2021). On cell J5 add the third year of your plan (e.g. 2022). On cell L5 add the fourth year of your plan (e.g. 2023). On cell N5 add the fifth year of your plan (e.g. 2024)

3.3.3 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.

3.3.4 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.

3.3.5 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 "Planning 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). On cell G5 add the second year of your plan (e.g. 2021). On cell I5 add the third year of your plan (e.g. 2022). On cell K5 add the fourth year of your plan (e.g. 2023). On cell M5 add the fifth year of your plan (e.g. 2024)

4.2.3 On column C, starting on row 16, add the total length of urban roads for each municipality. On column D, starting on row 16, add the total length of urban roads in GOOD condition for each municipality. On column E, starting on row 16, add the total length of urban roads in FAIR condition for each municipality. On column F, starting on row 16, add the total length of urban roads in POOR condition for each municipality. 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.

4.4. Plan works for each year

4.4.1 On your Excel file go to the "5YP" worksheet

4.4.2 To complete a plan, user needs to decide when Rehabilitation and Periodic Maintenance works should be done. The total length of urban roads (according to values on column D, starting on row 16) in GOOD condition will be automatically recommended for Routine Maintenance.

4.4.3 To defined the planned length to be Rehabilitated on year 1 of the plan, user can add the number of Kilometers per municipality on column D (starting on row 16). To defined the planned length to be Rehabilitated on year 2 of the plan, user can add the number of Kilometers per municipality on column N (starting on row 16). To defined the planned length to be Rehabilitated on year 3 of the plan, user can add the number of Kilometers per municipality on column T (starting on row 16). To defined the planned length to be Rehabilitated on year 4 of the plan, user can add the number of Kilometers per municipality on column Z (starting on row 16). To defined the planned length to be Rehabilitated on year 5 of the plan, user can add the number of Kilometers per municipality on column AF (starting on row 16)

4.4.4 To defined the planned length to receive Periodic Maintenance on year 1 of the plan, user can add the number of Kilometers per municipality on column J (starting on row 16). To defined the planned length to receive Periodic Maintenance on year 1 of the plan, user can add the number of Kilometers per municipality on column J (starting on row 16). To defined the planned length to receive Periodic Maintenance on year 2 of the plan, user can add the number of Kilometers per municipality on column P (starting on row 16). To defined the planned length to receive Periodic Maintenance on year 3 of the plan, user can add the number of Kilometers per municipality on column V (starting on row 16). To defined the planned length to receive Periodic Maintenance on year 4 of the plan, user can add the number of Kilometers per municipality on column AB (starting on row 16). To defined the planned length to receive Periodic Maintenance on year 5 of the plan, user can add the number of Kilometers per municipality on column AH (starting on row 16)

4.4.5 Length of roads in GOOD condition will be automatically recommended for Routine Maintenance for all years of the program. All length of urban roads that are not in Good condition but are planned to be treated within the 5-year period, will be automatically recommended for Routine Maintenance in the year after its Rehabilitation or Periodic Maintenance

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).

4.4.6 After completing the 5-year plan, on cell B7 of the worksheet add the date the plan was prepared

4.4.7 Save your Excel plan

4.5. Access the plan summary

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

4.5.1 Annual plans are already ready on the "5YP" worksheet

4.5.2 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.

4.5.3 If you made any modification, save your Excel file

4.6 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.

4.6.1 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.

4.6.2 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.

4.6.3 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 Urban Roads (start and end year)". Once the upload of the file is completed, click on "Save".

4.6.4 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.

4.6.5 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.

4.6.6 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.

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

4.7. 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

4.7.1 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.

4.7.2 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.

4.7.3 Review your plan on the "5YP"

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

4.7.5 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.