



WRMIS User Manual

PERFORMANCE EVALUATION

DEVELOPMENT OF WATER RESOURCES
MANAGEMENT INFORMATION SYSTEM (WRMIS)
AND DECISION SUPPORT SYSTEM (DSS)

NESPAK

Version 1.0

April 03, 2017









Revision History

Version	Date	Ву	Summary of Changes
1.0	23-Aug-16	NESPAK	Initial Draft









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1. Performance Evaluation

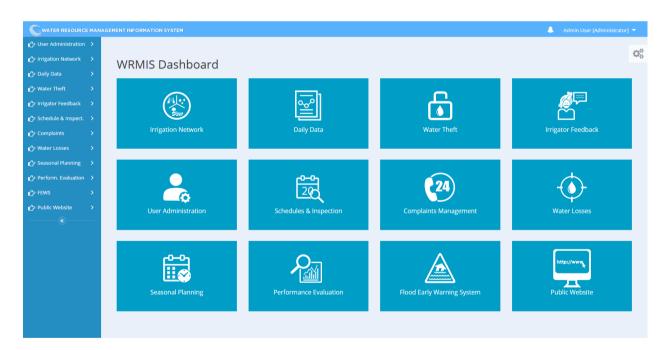
Performance Evaluation is a technique which is used to assess and measure Canal Divisional Performance on the basis of operations and operational data available in Irrigation MIS. Presently, Performance Evaluation is done on fortnightly basis of the selected Canal Divisions. The goal of Performance Evaluation is to collect and process the operational data and convert it into actual performance against expected performance parameters. It provides an opportunity for the Canal Divisions itself and the top management of Punjab Irrigation Department to determine the actual performance and possible improvements in performing canal operations. It can also help the authorities to improve the overall operations of Irrigation Department by providing an environment of heathy completion and offering certain incentives such as scores in Annual Performance Reports of the officials and officers of Punjab Irrigation Department.

This module provides an interface to view Performance Score and reports.

Business User: Administrator,

Pre-Requisite: Daily Data, water theft cases, and complaints' data should be available for

the selected irrigational boundary.











1.1 Reference Data: Complexity Factor

This module provides the reference data complexity factor that has to be used into Performance Evaluation.

How to Access: Main Menu -> Performance Evaluation - > Reference Data -> Complexity Factor

















Complexity Level	Complexity Factor	Multiplication Factor	
Normal		0	0
Difficult		1	0.1
Very Difficult		2	1 0.2
Intermediately Complex		3	0.3
Complex		4	0.4
Very Complex		5	0.5

Complexity Factor:



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form



Reset to defaults

- Click on the <Reset to defaults> button.
- System reset all the records as per the default criteria given.

1.2 KPI Categories

This module provides the reference data 'KPI Categories' that has to be used into Performance Evaluation.

How to Access: Main Menu -> Performance Evaluation - > Reference Data -> KPI Categories



















Category Name	Default Weightage (Field Data)	Current Weightage (Field Data)	Default Weightage (PMIU Checking)	Current Weightage (PMIU Checking)	Description	Include in P.E. Calculation	Action
Dry Tail	-20	-20	-6	-6	Tail Gauge is Less Than or Equal to 30% of Authorized Tail Gauge	€ 1	<u></u>
Short Tail	-16	-16	-10	-10	Tail Gauge is between 30% and 90% of Authorized Tail Gauge	€	
Excessive Tail	-10	-10	-5	-5	Tail Gauge is more than 115% of Authorized Tail Gauge	€	
Authorized Tail	30	30	15	15	Tail Gauge is between 90% and 115% of Authorized Tail Gauge	€	
Percentage of channels of which Data was not received from Field Division	-5	-5				€	
Water Losses/Unaccounted Water	-25	-25				€	
Difference of Head Gauges checked by PMIU staff with gauges conveyed by Field Division			-19	-19	3	₹	Ø
Difference of Tail Gauges checked by PMIU staff with gauges conveyed by Field Division			-19	-19		€	Ø
Water Theft Identification	5	5	-10	-10	1 point per identification up to maximum of 5 for Field staff and -2 for PMIU up to maximum of -10	€	
Complaint Resolution Efficiency	-5	-5	-5	-5	For Average Complaint Resolution Time of 2 days the maximum marks are awarded. For no complain maximum marks are awarded		Ø
Gauging Status (Gauge Not Painted)	-5	-5	-10	-10		€	
Gauging Status (Gauge Not Fixed)	-5	-5	-10	-10		Ø	
Rotational Violation	-6	-6	-12	-12	-4 points per violation up to maximum of -12	€	
Total (Included KPICategories)	-62	-62	-91	-91			



KPI Categories:



Edit



- Click on 'Edit' image to edit the existing record.
- · System opens the record into editable form



Reach

Reset to defaults

- Click on the <Reset to defaults> button.
- System reset all the records as per the default criteria given.



Include in P.E. Calculation



 Click on 'Include in P.E. Calculation' check box to include specific category into Performance Evaluation calculation.









• By default Include in P.E. Calculation check box is marked checked.

1.3 KPI Sub Categories

This module provides the reference data 'KPI Sub Categories' that has to be used into Performance Evaluation.

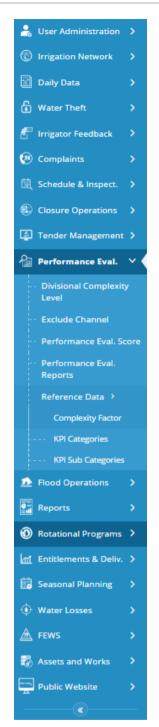
How to Access: Main Menu -> Performance Evaluation - > Reference Data -> KPI Sub Categories







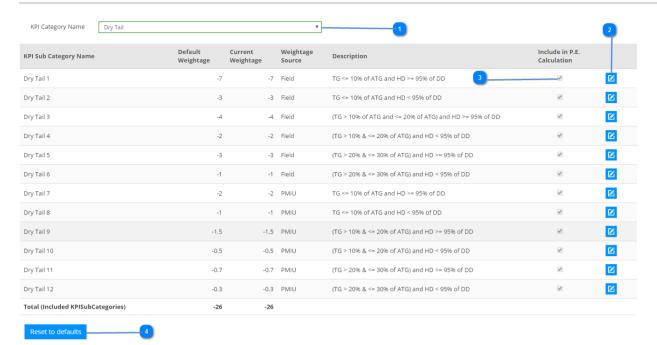












KPI Sub Categories:

1

KPI Category Name

Dry Tail



- Click on 'KPI Category Name' dropdown.
- System opens the respective record into Tabular form

2

Edit



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form

3

Reach

Reset to defaults

- Click on the <Reset to defaults> button.
- System reset all the records as per the default criteria given.



Include in P.E. Calculation



 Click on 'Include in P.E. Calculation' check box to include specific sub category into Performance Evaluation calculation.









• By default Include in P.E. Calculation check box is marked checked.

1.4 Division Complexity Level

This module provides the reference data 'Division Complexity Level' that has to be used into Performance Evaluation.

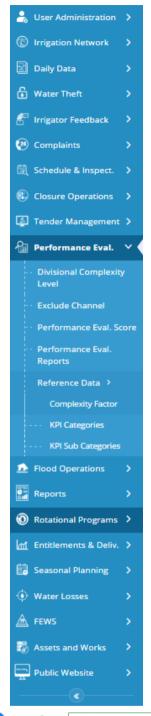
How to Access: Main Menu -> Performance Evaluation- > Division Complexity Level





















Division Complexity Level:



- Select zone from the 'Zone' dropdown.
- On selection of zone, relevant circles are populated in the circle dropdown.



- Select circle from the 'Circle' dropdown.
- On selection of circle, relevant divisions are populated in the Table along with current Complexity Level, Multiplication Factor and Remarks.



- Click on 'Edit' image to edit the existing record.
- System opens the record into editable form.

1.5 Exclude Channel

This module is an interface to search, edit, delete and view already created channels and exclude the selected channels from Performance Evaluation

How to Access: Main Menu -> Performance Evaluation - > Exclude Channel









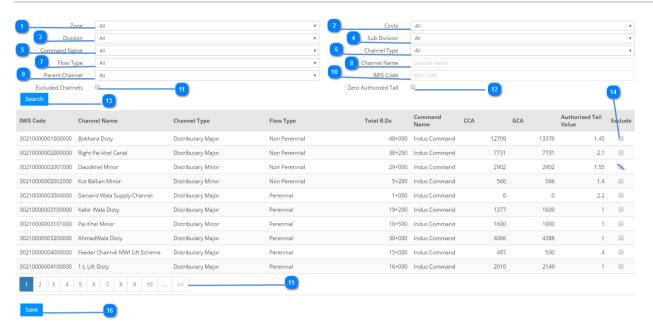




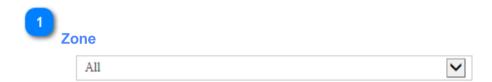








1.6 Exclude Channel:



- User selects a zone from the list of already created zones into 'Zone' dropdown.
- System populates all the circles of that selected zone into 'Circle' dropdown.



- User selects a circle from the list of already created circles into 'circle' dropdown.
- System populates all the divisions of that selected circle into 'Division' dropdown.



- User selects a division from the list of already created Divisions into 'Division' dropdown.
- System populates all the sub divisions of that selected division into 'Sub Division' dropdown.









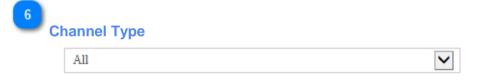




- User selects a sub division from the list of already created sub divisions into 'Sub Division' dropdown.
- System populates all the channels of that selected sub division.



User selects command name into 'Command Name' dropdown.

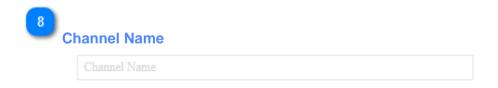


User selects channel type into 'Channel Type' dropdown.

Flow Type



User selects flow type into 'Flow Type' dropdown.



• User enters channel name into 'Channel Name' text field.



• User selects parent channel into 'Parent Channel' dropdown.









10

IMIS Code

IMIS Code

- User enters IMIS code into 'IMIS Code' text field.
- •
- 11

Excluded Channels



- Click on 'Excluded Channels' check box.
- •
- 12

Zero Authorized Tail



• Click on 'Zero Authorized Tail' check box.

13

Search

Search

- Click on <Search> Button.
- System displays the records as per the search criteria given by the user.
- If there is no record against the entered search criteria, system shows the message 'No record found'
- System displays all records if no search criteria is provided
- 14

Exclude



- Click on 'Exclude' check box against the specific row of the Table.
- System will exclude the selected channel in the next phase of Performance Evaluation

15

Paging



Click on page numbers to move the user to other pages.











Save



- Click on <Save> button, system verify all the changes.
- System saves the data into the database & displays a message "Records saved successfully".

Performance Evaluation Score

This module is an interface to view already created performance Evaluation score. **How to Access:** Main Menu -> Performance Evaluation - > Performance Evaluation Score







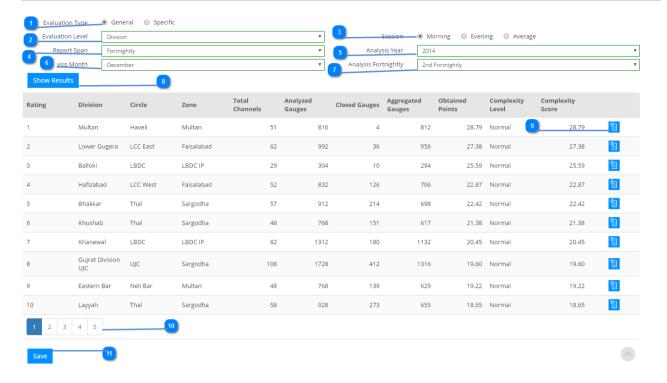












Performance Evaluation Score:

- 1 Evalua
 - **Evaluation Type**
 - GeneralSpecific
 - · User selects evaluation type.
 - System populates all the dropdowns according to selected radio button option.
- 2

Evaluation Level

Division ▼

- User selects evaluation level from the list of already defined levels into 'Evaluation Level' dropdown.
- System populates all the dropdowns according to selected Evaluation level.
- 3

Session

- Morning Evening Average
- User selects session.
- System populates all the dropdowns according to selected session.
- 4

Repot Span

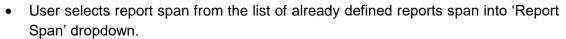








Fortnightly



- System populates all the dropdowns according to selected Report span.
- 5

Analysis Year

2014

- User selects year from the list of already created years into 'Analysis Year' dropdown.
- System populates all the dropdowns according to selected Analysis Year.

6

Analysis Month

December

- User selects month from the list of already created months into 'Analysis month' dropdown.
- System populates all the dropdowns according to selected Analysis month.

7

Analysis Fortnightly

December

▼

- User selects fortnightly span from the list of already created fortnights into 'Analysis Fortnight' dropdown.
- System populates all the dropdowns according to selected Analysis Fortnight.

8

Show Results

Show Results

- Click on <Show Results> Button.
- System displays the records as per the search criteria given by the user.
- If there is no record against the entered search criteria, system shows the message 'No record found'
- System displays all records if no search criteria is provided

9

Detail



- Click on <Detail> Button.
- System navigates the user to the detail page of respective record.



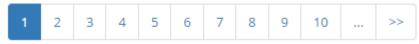






10

Paging



• Click on page numbers to move the user to other pages.







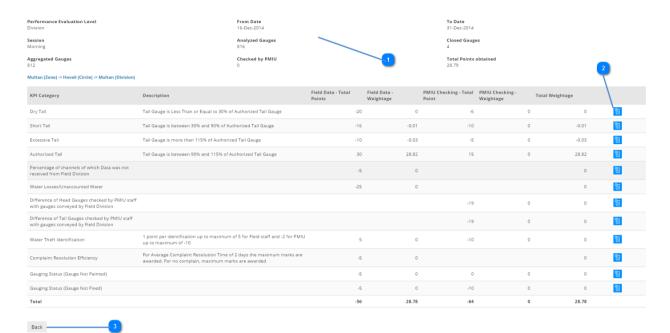




Save



- Click on <Save> button, system verify all the changes.
- System saves the data into the database & displays a message "Records saved successfully".



KPI Detail:



Parent Information



System displays the basic information of that particular record.





- Click on <Detail> Button against the specific row of the Table.
- System navigates the user to the detail page of respective record.



















Back

Back

Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
Dry Tail 1	TG <= 10% of ATG and HD >= 95% of DD	-7	0	Field
Dry Tail 2	TG <= 10% of ATG and HD < 95% of DD	-3	0	Field
Dry Tail 3	(TG > 10% of ATG and <= 20% of ATG) and HD >= 95% of DD	-4	0	Field
Dry Tail 4	(TG > 10% & <= 20% of ATG) and HD < 95% of DD	-2	0	Field
Dry Tail 5	(TG > 20% & <= 30% of ATG) and HD >= 95% of DD	-3	0	Field
Dry Tail 6	(TG > 20% & <= 30% of ATG) and HD < 95% of DD	-1	0	Field
Dry Tail 7	TG <= 10% of ATG and HD >= 95% of DD	-2	0	PMIU
Dry Tail 8	TG <= 10% of ATG and HD < 95% of DD	-1	0	PMIU
Dry Tail 9	(TG > 10% & <= 20% of ATG) and HD >= 95% of DD	-1.5	0	PMIU
Dry Tail 10	(TG > 10% & <= 20% of ATG) and HD < 95% of DD	-0.5	0	PMIU
Dry Tail 11	(TG > 20% & <= 30% of ATG) and HD >= 95% of DD	-0.7	0	PMIU
Dry Tail 12	(TG > 20% & <= 30% of ATG) and HD < 95% of DD	-0.3	0	PMIU
Total		-26	0	



Sub KPI Dry Tail Detail:

System shows the percentage of Dry Tails entered by field staff and PMIU staff into that specific irrigational boundary.



Back

Back

• Click on <Back> button navigates the user to previous screen.









KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
Short Tail 1	(TG > 30% & <= 45% of ATG) and HD >= 95% of DD	-4.5	0	Field
Short Tail 2	(TG > 30% & <= 45% of ATG) and HD < 95% of DD	-1.5	0	Field
Short Tail 3	(TG > 45% & <= 60% of ATG) and HD >= 95% of DD	-4	0	Field
Short Tail 4	(TG > 45% & <= 60% of ATG) and HD < 95% of DD	-1	0	Field
Short Tail 5	(TG > 60% & <= 75% of ATG) and HD >= 95% of DD	-2.5	-0.01	Field
Short Tail 6	(TG > 60% & <= 75% of ATG) and HD < 95% of DD	-1	0	Field
Short Tail 7	(TG > 75% & < 90% of ATG) and HD >= 95% of DD	-1	0	Field
Short Tail 8	(TG > 75% & < 90% of ATG) and HD < 95% of DD	-0.5	0	Field
Short Tail 9	(TG > 30% & <= 45% of ATG) and HD >= 95% of DD	-2.5	0	PMIU
Short Tail 10	(TG > 30% & $<=45\%$ of ATG) and HD $<95\%$ of DD	-1.5	0	PMIU
Short Tail 11	(TG > 45% & <= 60% of ATG) and HD >= 95% of DD	-2	0	PMIU
Short Tail 12	(TG > 45% & <= 60% of ATG) and HD < 95% of DD	-1	0	PMIU
Short Tail 13	(TG > 60% & <= 75% of ATG) and HD >= 95% of DD	-1.5	0	PMIU
Short Tail 14	(TG > 60% & $<=$ 75% of ATG) and HD $<$ 95% of DD	-0.5	0	PMIU
Short Tail 15	(TG > 75% & < 90% of ATG) and HD >= 95% of DD	-0.6	0	PMIU
Short Tail 16	(TG > 75% & < 90% of ATG) and HD < 95% of DD	-0.4	0	PMIU
Total		-26	-0.01	











Sub KPI Short Tail Detail:

System shows the percentage of Short Tails entered by field staff and PMIU staff into that specific irrigational boundary.



• Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
Excessive Tail 1	(TG > 115% & <= 120% of ATG) and HD >= 95% of DD	-0.6	-0.01	Field
Excessive Tail 2	(TG > 115% & <= 120% of ATG) and HD < 95% of DD	-0.4	0	Field
Excessive Tail 3	(TG > 120% & <= 130% of ATG) and HD >= 95% of DD	-1.2	-0.01	Field
Excessive Tail 4	(TG > 120% & <= 130% of ATG) and HD < 95% of DD	-0.8	0	Field
Excessive Tail 5	(TG > 130% & <= 140% of ATG) and HD >= 95% of DD	-2	-0.01	Field
Excessive Tail 6	(TG > 130% & <= 140% of ATG) and HD < 95% of DD	-1	0	Field
Excessive Tail 7	(TG > 140 % of ATG) and HD >= 95% of DD	-2.4	0	Field
Excessive Tail 8	(TG > 140% of TG) and HD < 95% of DD	-1.6	0	Field
Excessive Tail 9	(TG > 115% & <= 120% of ATG) and HD >= 95% of DD	-1.5	0	PMIU
Excessive Tail 10	(TG > 115% & <= 120% of ATG) and HD < 95% of DD	-0.5	0	PMIU
Excessive Tail 11	(TG > 120% & <= 130% of ATG) and HD >= 95% of DD	-1	0	PMIU
Excessive Tail 12	(TG > 120% & <= 130% of ATG) and HD < 95% of DD	-0.5	0	PMIU
Excessive Tail 13	(TG > 130% & <= 140% of ATG) and HD >= 95% of DD	-0.6	0	PMIU
Excessive Tail 14	(TG > 130% & <= 140% of ATG) and HD < 95% of DD	-0.4	0	PMIU
Excessive Tail 15	(TG > 140 % of ATG) and HD >= 95% of DD	-0.3	0	PMIU
Excessive Tail 16	(TG > 140% of TG) and HD < 95% of DD	-0.2	0	PMIU
Total		-15	-0.03	
Back1				
_				

Sub KPI Excessive Tail Detail:

System shows the percentage of Excessive Tails entered by field staff and PMIU staff into that specific irrigational boundary.



• Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
AT1	TG >= 90% & <=115% of ATG	30	28.82	Field
AT2	TG >= 90% & <=115% of ATG	15	0	PMIU
Total		45	28.82	
Back1				

















Sub KPI Authorized Tail Detail:

System shows the percentage of Authorized Tails entered by field staff and PMIU staff into that specific irrigational boundary.



• Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
DNR	Percentage of Channels of which data was not received	-5	0	Field
Total		-5	0	
Back1				

Sub KPI Data not received Detail:

System shows the percent of data that has not been reported by field staff into that specific irrigational boundary.

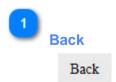


• Click on <Back> button navigates the user to previous screen.

	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
Percentage of water losses	-25	0	Field
	-25	0	
	Percentage of water losses		

Sub KPI Water Losses Detail:

System shows the percent of actual Water Losses into that specific irrigational boundary.



Click on <Back> button navigates the user to previous screen.









KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data	(Field or PMIU)
DHG1	DHG > = 0.2 & <= 0.3	-3	0	PN	MIU
DHG2	DHG > 0.3 & <= 0.4	-4	0	PN	MIU
DHG3	DHG > 0.4 & <= 0.5	-5	0	PN	MIU
DHG4	DHG > 0.5	-7	0	PN	MIU
Total		-19	0		

Sub KPI head Difference Detail:

System shows the difference of Head gauges entered by field staff with PMIU staff into that specific irrigational boundary.

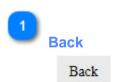


Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)
DTG1	DTG > = 0.2 & <= 0.3	-1.5	0	PMIU
DTG2	DTG > 0.3 & <= 0.4	-2.5	0	PMIU
DTG3	DTG > 0.4 & <= 0.5	-3.5	0	PMIU
DTG4	DTG > 0.5 & <= 0.6	-4.5	0	PMIU
DTG5	DTG > 0.6	-7	0	PMIU
Total		-19	0	

Sub KPI Tail Differences Detail:

System shows the difference of Tail gauges entered by field staff with PMIU staff into that specific irrigational boundary.



Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	gory Source of Data (Field or PMII	
WTI1	Initial Points = 0.25 per identification	5	0	Field	
WTI2	Initial Points = -1 per identification	-10	0	PMIU	
Total		-5	0		
Back1					

















Sub KPI Water Theft Detail:

System shows the number of Water Theft cases logged into that specific irrigational boundary.



Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)	
CRE1	-0.1 per day latency from Complaint Resolution Duration mentioned in Complaint Module upto maximum of Initial Points = -1 point per complain	-5	0	Field	
Total		-5	0		
Back 1					

Sub KPI Complaint Detail:

System shows the percentage of complaints resolved into that specific irrigational boundary.

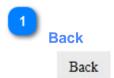


Click on <Back> button navigates the user to previous screen.

KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)	
GNP1	Initial Points = -1 mark for one Not Painted Gauge	-5	0	Field	
Total		-5	0		
Back 1					

Sub KPI Gauge Status Not Painted Detail:

System shows the percentage of gauges whose status was 'Not Painted' into that specific irrigational boundary.



• Click on <Back> button navigates the user to previous screen.









KPI Sub Category	Description	Total Points in Sub Category	Weightage in the Sub Category	Source of Data (Field or PMIU)	
GNF1	Initial Points = -1 mark for one Not Fixed Gauge	-5	0	Field	
GNF2	Initial Points = -2 mark for one Not Fixed Gauge	-10	0	PMIU	
Total		-15	0		

Sub KPI Gauge status Not Fixed Detail:

System shows the percentage of gauges whose status was 'Not Fixed' into that specific irrigational boundary.



Click on <Back> button navigates the user to previous screen.

1.7 Performance Evaluation Report

This module is an interface to view already created Performance Evaluation Reports.

How to Access: Main Menu -> Performance Evaluation - > Performance Evaluation Reports







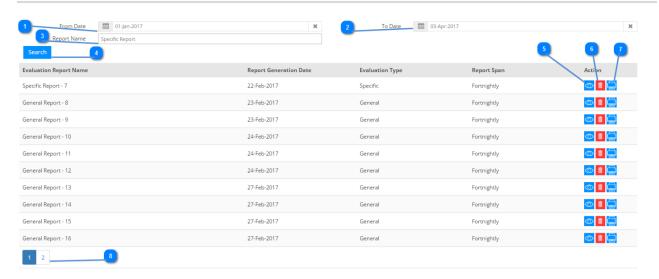












Performance Evaluation Score:

1

From Date



- User selects the starting date into 'From Date' calendar dropdown.
- By Default, system shows "1 current date" into 'From Date' calendar dropdown.

2

To Date



- User selects the ending date into 'To Date' calendar dropdown.
- By Default, system shows current date into 'To Date' calendar dropdown.

3

Report Name

Specific Report

User enters the report name into 'Report Name' text field.

4

Search

Search

- Click on <Show Results> Button.
- System displays the records as per the search criteria given by the user.
- If there is no record against the entered search criteria, system shows the message 'No record found'











System displays all records if no search criteria is provided











Show



- User clicks on 'show' button.
- System navigates the user to report view page and will show the all the relevant scores in each category



Delete



• Click on 'Delete' image to delete the relevant already saved Performance Evaluation Report.



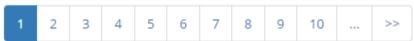
Print



Click on 'Print' image button navigates to the print page of specific Report.



Paging



Click on page numbers to move the user to other pages.



Project Monitoring & Implementation Unit (PMIU)

Irrigation Department, Government of the Punjab Ph: 92-42-99213595-7 Fax: 92-42-99213598 Email:pmiuipd@yahoo.com



PERFORMANCE EVALUATION

Evaluation Type	Specific	Evaluation Level	Sub Division : Aktharabad
Session	Morning	Report Span	Fortnightly
Analysis Year	2014	Analysis Month	December
Analysis Fortnightly	1st Fortnightly		

Rank	Section	Sub Division	Division	Circle	Zone	Total Channels	An alyzed Gauges	Closed Gauges	Aggregated Gauges	Obtained Points	Complexity Level	Complexity Score
1	H/PLOT	Aktharabad	Balloki	LBDC	LBDC IP	16	225	0	225	36.41	Normal	36.41
2	Khokhar	Aktharabad	Balloki	LBDC	LBDC IP	4	45	0	45	8.37	Normal	8.37

Report By: Admin User [Administrator] WRM IS System Generated Report Report Time: 03-Apr-2017 05:07 PM Page 1 of 1









Performance Evaluation Report Print:



